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PAPER SESSION 1

Making Culture Visible

Curators: JAMIE SHERMAN, Intel & TIFFANY ROMAIN, Turnitin

The papers in this session focus on a wide array of topics that individually shed light on how people are struggling to understand emerging technologies from self-driving cars to surveillance systems to ridesharing services and changing social and cultural practices in spaces as disparate as inner-city libraries, rural farms, and urban planning offices. Collectively, they bring our attention to the underlying cultural sense-making that shapes consumer engagement and demonstrate the ongoing dialectic between continuity and change. More, they show what revealing these underlying patterns can enable organizations and practitioners to do. By seeing how hope, freedom, autonomy, democracy, ownership, and social norms intersect and interact with infrastructure, institutions, and products, the papers in this section suggest new ways of measuring impact, designing platforms and interfaces, and indeed thinking about the role and relationship between ethnographer, institution, and community.

Papers 1 – Making Culture Visible

To Have and Have Not: Exploring Grammars of Sharing in the Context of Urban Mobility

ANNA ZAVYALOVA

Stripe Partners

This paper explores cultural differences in the practices of car sharing in the context of urban mobility. Challenging the all too frequent and often uncritical uses of the term “sharing economy”, we argue for a more granular representation of practices that occur when “sharing” meets “economy”, focusing on the tensions that characterise people’s embodied experiences of carpooling. By exploring emergent behaviour conventions, this paper seeks to highlight the ethnographic value of shifting perspectives between different players in car sharing transactions. We aim to offer a fresh, ethnographically rich and critical perspective on practices of mobility sharing in the context of an industry in flux.

Keywords: consumption, mobility, sociality, transportation, sharing economy

INTRODUCTION

The “sharing economy” has had the attention of the anthropological community since the dawn of the Internet, with the likes of eBay and Craigslist, back in the 1990s, beginning to transform the lives of ordinary people for whom historically sharing has been limited to known social networks, friends and families and local communities (Schor 2014). It remains unclear when exactly the term was coined and what its original meaning implied. An umbrella category rather than a strictly defined concept, “sharing economy” has since its conception come to comprise a wide range of distinctly different phenomena: from collaborative to access-based consumption, from peer economy to asset-free business models. Formally defined as “an economic system in which assets or services are shared between private individuals, either free or for a fee, typically by means of the Internet” (Oxford English Dictionary), sharing economy’s ever-expanding label has been attached to a large number of hybrid market transactions. Online marketplaces (eBay and Craigslist), peer-to-peer accommodation (Airbnb, Couchsurfing), travel (Blablacar, TripR), tap and ride services (Uber, Lyft) and social lending (Prosper, Lending Club), despite being hugely different phenomena in both content and form, often get grouped together under sharing economy’s bland, nondescript umbrella.

In a rapidly changing world, where society is becoming more liquid (Bauman 2007) and markets are increasingly being replaced by networks (Bardhi & Eckhard 2012), the temptation to group these together is high: they were indeed made possible by the same technological advances, and rely on a similar business model. “Sharing economy” as an analytical framework, however, fails to address the differences and granularities in the ways these types of businesses actually operate and fit into people’s lives. It is too broad and vague a term to be applicable to often strikingly different phenomena: while the underlying business models are similar, the embodied experiences of the above-mentioned platforms differ from country to country, from culture to culture, from person to person. As boundaries are shifting between ownership and access, shared and personal, public and private, our relationships with things, spaces and each other are similarly transforming.

To fully understand the nature and the shape of some of the emerging practices of sharing, we need a new language to help us get to the core of what happens when “sharing” meets “economy”. In order to achieve this, we suggest moving away from debating “sharing economy” as a wider societal phenomenon, and instead look at more specific cases of economic transactions that involve sharing spaces, services, costs and responsibilities. By getting at the ethnographically rich core of particular sharing practices within the context of economic transactions, we hope to arrive at more subtle and actionable insights that would help us understand how ideas of ownership and freedom, responsibility and flexibility, are changing across the world.

In this study, we have looked at one of the areas that’s been affected most dramatically by the rise of the internet-enabled peer-to-peer networks – urban mobility. We are presently witnessing the demise of the so called “old mobility”, a rigidly organised system with private cars at its cosmic epicentre, and the dawn of a new kind of mobility: one that brings a future “in which we would all be free to move in the greatest variety of ways” (Montgomery 2013). Tap and ride services, such as Uber and Lyft, are classic examples of that futuristic vision. They transform the ways in which we think about vehicles, routes and travel. They allow more and more users across the globe to benefit from their competitive prices and mobile, cashless interfaces. They change the way we think about city travel, planning and time.

Amongst the more recent additions to the global mobility marketplace are pooled mobility services such as UberPool and Lyft Line (amongst many other local competitors). These are built on algorithms that enable strangers to carpool together within a city, when travelling in a similar direction, at a cheaper cost than if they were to use the service by themselves. For the purposes of this article, when talking about carpooling, we distinguish between two different types. Firstly, the well-established practices of ride sharing, or carpooling, amongst close circles of friends and colleagues, organised on a regular or ad-hoc basis by individuals themselves; these practices we refer to as *informal pooling*. Secondly, by *formal pooling*, we mean centralised app-based paid services that connect strangers travelling in the same direction – such as UberPool. The latter practices are pivotal to the argument of this paper. As a relatively recent phenomenon, studying them allows us to focus in on the tensions that arise as people make sense of the new practice. We have not included cases of shared car ownership in this study, focusing exclusively on instances of shared rides.

As cities are changing and car ownership becomes less attainable (Cheshire et al 2010), with demand for freedom and flexibility growing (Bauman 2000; Levine 2009), practices of sharing car rides with friends as well as with strangers find themselves in a liminal space where old values clash against new opportunities. As travel norms and aspirations change across locations, genders and generations, so do travel patterns. With cities undergoing significant demographic, economic and infrastructural changes, our relationships with urban landscapes are to a huge extent experienced and take on an embodied form through travel. When we traverse urban landscapes, we create points of contact with different parts of the city, appropriating and getting more intimate with some, while rejecting others. The modes of transportation we choose for traversing those landscapes are linked to how we think and feel about the city; what aspirations and values we have in life; who we want to be and how we want to appear to others. Reasons behind choosing one transportation mode over another can thus reach far and wide. They can say as much, if not more, about our identity and values, as about our attitudes towards transportation. Sexualisation of the car (Miller 1997) and its linkage to higher socio-economic status has been commented on by a number

of economic and urban anthropologists over the years (Freund 1993; Brandon 2002; Sheller 2004; Miller 2001b; Motavalli 2001; Sachs 2002). In a similar vein, this paper shows how different transportation modes can be associated with a whole range of socio-economic and phenomenological meanings.

Formal pooling thus enters a highly-saturated context, where people have tightly formed relationships with different modes of transportation. Formal pooling practices relying on a car as a vehicle are thus entangled in webs of meaning that reach beyond the realm of mobility and transportation. An understanding of how formal pooling fits into one urban landscape or another, cannot be achieved without looking at social, cultural and emotional factors surrounding each journey.

It is important to emphasize from the outset that the theoretical and ethnographic contribution of this paper does not attempt to address the whole body of “sharing economy” debate, nor does it offer an in-depth discussion of anthropology of mobility. What it seeks to do instead, is explore the liminal spaces and shifting perspectives shaping people’s relationships with transportation modes, mobility marketplace, and with each other: spaces between private and public, teleological and experiential, freedom and ownership. What we find is a continuous oscillation between what’s perceived to be public and private spaces, the social grammars that go with them; a compromise between the practical, logistical elements of a journey, and the embodied experiences of it; a choice between being and having, using and owning. These tensions come to define people’s perceptions and experiences of formal pooling. By shifting perspectives between these categories, we hope to move away from a discussion of sharing economy that is too broad and controversial to have much use in applied ethnography. Instead, we focus on a very specific yet increasingly relevant and fascinating instantiation of urban mobility, which involves sharing resources, spaces and responsibilities.

In this paper, we argue for the need to focus on *how* car sharing is conceived and practiced by family and friend groups, colleagues, strangers and drivers; *how* it is transforming the mobility landscape and *how* it is reconfiguring our relationships with cities and with each other. With this approach, we hope to get closer to a more fluid understanding of this specific form of sharing practice, and glance at what the future of pooled mobility might look like.

To fully understand *why* and *how* attitudes to car ownership are changing and *why* formal pooling services like UberPool are successful in some cultural geographies and not in others, we will start by exploring three mobility landscapes, outlining the limitations of existing public transportation services, tracing pain points experienced by local commuters, and exploring existent practices of informal and formal pooling. We will then look at the wide spectrum between the functional “why’s” and “how’s” of pooling, and look at the cultural, social, and emotional factors affecting people’s choices.

In this study, we looked at formal and informal pooling practices and attitudes across three cities: London (UK), Ahmedabad (India) and São Paulo (Brazil). Over a period of three weeks we conducted 45 interviews mixed with immersive travel and commuting activities, participant observation and interactive exercises. Our research focused on documenting and investigating different commute and travel modes, seeking to understand existing cultural, social, economic, functional and logistical drivers and barriers to pooled mobility, as well as already established practices of short and long distance informal vehicle share.

Hugely different but comparably vast, populous and congested, the three cities have unique and intricate mobility landscapes, across which millions of people navigate daily, to work and to home, to shops, hospitals, schools and night clubs, constantly trading off different needs and priorities, negotiating between being a driver and a passenger, an owner and a user. Often locked in by circumstances, commuters are seeking creative and elaborate ways to traverse their cities, making sense of formal pooling, as more and more car sharing solutions emerge in the market. In some places, formal pooling is a practice that doesn't have clear rules of engagement, causing significant tensions among unaccustomed users, who are yet to learn pooling's do's and don'ts. In others, people find that they are already "fluent" in the grammar of car sharing. To have or have not, to own or to share, to be or to seem – these are but a few questions they are facing. Exploring these granularities of ownership and use, sharing and exchange, is key to situating formal pooling in the urban mobility landscape, if we are to avoid politicising the discourse and instead get at its ethnographically rich core.

A TALE OF THREE CITIES

São Paulo

A commuter's journey – It's 5:50pm in São Paulo, as Fabio, a 33-year wholesale energy salesman, leaves his office in the busy Vila Olímpia. He walks over to a nearby bus stop to catch his bus home. Home is in Santos, a coastal suburb 55km south east off the city - or rather, one and a half hours' commute, for travel here is not measured in distance, but in hours spent on the road. Distances are abstract, rendered meaningless by the webs of bad roads, heavy congestion, temperamental climate and poor infrastructure. Time is more certain, and a lot of it gets wasted every day by Paulistano commuters.

Fabio's commute is in fact comparatively pleasant by São Paulo standards. His employer pays for a "fretado" bus – a chartered service for forty odd people. It runs from Santos to Vila Olímpia. Fabio – and everyone else on the bus – gets his own seat, a blanket and a pillow. "If I'm not on the bus, they will put my blanket and cushion up in the overhead locker, it will wait for me there until the next trip. The bus is like a family". Fabio and his fellow co-riders make a real effort to have an active relationship with the service and with each other, taking on responsibilities and creating a more personal travel space. Fabio is good friends with twelve of the regular commuters. They created a WhatsApp group, where they can let others know if they are running late and need the bus to wait for them. One of the bus conductors has recently joined the group to provide better logistical support and timing information to the passengers, simply by messaging them.

Fabio will make it home by 7:40pm. If he had chosen to go back to his parents' home in São Paulo, which is much closer, he wouldn't be home until 9pm. "Thanks to this service, the journey is easier and quicker than the shorter distance commute within São Paulo". The day before we met, Fabio had taken an UberPool back to his parents' place. Having bought an expensive drone that day, he didn't want to be on public transport, which is considered unsafe; and a private taxi (or even an Uber X) would have been too expensive. The pooled journey took him painful four hours and a half. The extreme congestion in the city means you never know how long you will be stuck in traffic for – diversions are long and undesirable, particularly in the less safe parts of the city.

Public transport – São Paulo is home and work place to 12 million people and a regional population of 21.1 million. The public transport infrastructure struggles to serve them – particularly failing those living in less wealthy and more populous suburbs in the south. A rail and metro network takes over five million passengers daily, however remains too small to adequately cater to the city’s growing needs. A fleet of buses carries another five million every day, but these offer little in terms of safety, efficiency and comfort. First and last mile challenges are severe, with no services to connect major arteries to new communities and settlements. Residents have no alternatives but to use what there is to make long duration journeys across large distances. São Paulo traffic jams infamously span over hundreds of kilometres. They are exacerbated by frequent rainfalls, which often lead to floods, drainage failure and falling trees that destroy electrical wiring and stop the operation of the traffic lights.

Whether in the context of crowded buses serving poorer neighbourhoods, or that of queuing on a platform to get on a train, personal safety is always on people’s minds. Accounts of being mugged and held at gun point were shared by a high number of people we spoke to. Female commuters are particularly wary of taking certain types of transport and walking home by themselves in the more peripheral parts of the city. As public transport is considered unsafe, WhatsApp is extensively used by people to create a safer travel environment. Since waiting for buses outside is considered particularly dangerous, WhatsApp “communities” are formed by bus passengers and drivers. They alert those on the route ahead when the bus is about to arrive. This allows people to wait in a safe indoor space, knowing exactly when to come out and hop on. This civic, bottom-up engagement with public transportation system, enabled by social media, allows Paulistanos to better navigate the risks and the dangers of public transport commuting.

Private cars – As public transport struggles to keep up with the needs of a growing population, car ownership is rapidly expanding. There are presently 4.2 million cars in the Municipality of São Paulo. Cars are seen as mobile enclaves that provide shelter and offer a more comfortable experience. Car ownership is also linked to higher socio-economic status, and have long been seen as a rite of passage for the aspiring middle classes.

In recent years, however, high congestion and lack of parking spaces make younger generations reconsider their priorities: perception of who you are in society as being linked to the transportation you use is visibly changing. Increasingly, more and more urban users are moving away from the ownership ideal and towards increased flexibility. This move is exacerbated by tough economic circumstances and decreased ability to purchase a personal vehicle.

Taxis – While extensive taxi fleets provide good services across much of the city, these are expensive and therefore not an option for many of the city’s residents – particularly in view of the ongoing recession, which is on everybody’s mind. Access to bus lanes is an advantage, making taxis the first choice in contexts of urgency. However, the landscape is highly competitive with Uber, Taxi99 and EasyTaxi offering similar services for much less. Being allowed to drive in bus lanes, legacy taxis travel through the city much more quickly than the new services. However, new services offer the same level of comfort at a lower price – the combination of comfort and affordability trumping the need to be on time.

Informal pooling – Informal pooling is well established in São Paulo. For shorter distances, school runs, neighbour and colleague pools are popular, especially amongst those living on the periphery. Such pools are typically organised through WhatsApp. “We have a WhatsApp group for parents with kids in the building block – we all trust each other even though we haven’t all met each other”, Dario told us. He is also a member of a WhatsApp group for people living in his condominium, which he frequently uses for finding and offering lifts.

For longer, intra-city journeys, Facebook is the first place to go. “Carona” groups, where long distance routes can be searched, are created by individual users for specific routes and times. “There are 256 people on the Ride Santo to São Paulo Facebook Page. It has grown from 50 three months ago” Fabio, who watches this space closely, told us. These informal, smaller user-driven initiatives are significantly more popular than services like Blablacar (a ride-sharing online community connecting people looking to share long distance journeys). Facebook is heavily relied on by Paulistanos in day to day life: upon meeting new people, one typically “checks their profile”, looking for subtle cues and visual clues. “It takes me one look at someone’s Facebook profile and I can tell what kind of person they are and if I can feel safe around them” Carmela, a 26-year old Paulistana, told us. Many others agreed. Facebook thus satisfies people’s need for personal safety and security, by allowing them to make fine-grained judgements based on profile pictures, education and personal tastes, which the likes of Blablacar doesn’t offer.

Formal pooling – In a city where transport infrastructure is highly insufficient, formal pooling comes to fill an acutely felt gap. New mobility solutions (such as UberPool and its local competitors) are emerging, rapidly becoming a part of the strained mobility landscape. The likes of UberPool and 99POP eliminate first and last mile challenges and provide a shelter from the heat and the rain, while still being affordable. Andre, 41 years old and working for an education consultancy, takes an UberPool to work every day. It offers him door to door connectivity and A/C, while costing only \$R3 more than a bus, where he wouldn’t get a seat after having walked to the bus stop for ten minutes in the heat, up and down the city’s hilly landscape. “I cannot arrive at a meeting and be all sweaty, or wet from the rain” Marcela similarly told us. Even if it’s a walkable distance, because of the hills and the weather she will not walk; with taxis being too expensive for regular use, UberPool and 99POP come to save the day.

The general friendliness and sociality of the city’s residents provides a natural home for formal pooling. Teresa, a 41-year-old social worker, shared a story of Uber-pooling during the World Cup, watching a football game together with fellow riders on a smartphone, getting the car to stop and celebrate each time their team scored. “We didn’t care we were late. We were having fun, we even got beers at a kiosk and celebrated”.

The norms around interaction are well established, with most people knowing how to “play it” and how to “go with the flow”. When Felipe gets into an UberPool, he says “hello” and “how are you”, waiting to see whether other riders “take the bait” and begin to chat. If they do, the journey is filled with amicable conversation; if they don’t, it’s “headphones on mode”; no one will feel offended. In a similar vein, Marcela, a 40-year old Paulistana residing in the wealthy Consolação neighbourhood, spoke about how easy it was to establish a social dynamic that everybody is happy with. “Sometimes you talk to people, sometimes you get the impression that they don’t want to talk, and both are fine. It really depends on everyone else in the car”.

Uber and other tap and ride services generally feel safer than the public transport: they offer a small, sheltered space and a driver who oversees everything that goes on in the car. At the same time, however, formal pooling vehicles attract a high degree of criminal activity. Since Uber introduced cash payments in Summer 2016, the number of attacks on Uber drivers and passengers has skyrocketed from an average of 13 per month earlier in the year to 141 per month in the rest of the year¹. An UberPool carrying multiple passengers is automatically at a higher risk of being robbed – something both drivers and riders are all too aware of. Many drivers we spoke to admitted to feeling unsafe driving to certain parts of the city, however, have little choice as they don't get to see the destination until they accept the ride. "Since cash payments were introduced", Carlos told us, "I no longer work after 9pm, as I don't want to risk going somewhere dangerous late at night, particularly if I have several passengers carrying cash on them".

Younger and female family members taking UberPool or 99POP journeys, use WhatsApp as a safety tool - to check in with their parents throughout the journey. "Our daughter always messages the family group when she gets into the car – to tell us where she is, who else is in the car, what the number plate is. That way we don't have to worry too much", Jose told us.

London

A commuter's journey – It is 7:10am in London and Chris is getting in the car to take his sons to the tube station (sometimes he would get a minicab, to avoid having to find parking). At 7:20am he picks up a friend's son James, who goes to the same school as his boys. At 7:30am he drops them off at the Ruislip Garden station. They take the Piccadilly line to their school in Ealing. Chris parks his car somewhere in between Ruislip Garden and Ruislip Manor stations – this is where he can find a free parking place: closer to the station is always full, and is £8-12 a day. He then walks to Ruislip Manor station and continues his journey to work, using public transport – he would never drive into London because of how bad the inner-city traffic is.

Chris is married with two sons (aged 12 and 15). He lives in Ruislip, a green suburb 16 miles northwest of Central London (45-60 mins travel by public transport). He is known to his friends and neighbours as the "Uber-dad", as he is always picking up and dropping off kids, his own and others'. He spends every Sunday afternoon planning for the week ahead. While the kids' routine is fixed, the parents' afternoon schedules are often changing which is why it's important to make a new plan every Sunday.

There are five stations near his home, however each is 15-20 minutes' walk away, with no public transport solution. He has to plan bringing and picking his sons up from the station, as well as figure out transportation for their social and sporting activities. Chris has different streams of communication that are directly related to car sharing arrangements. He uses texts with his sons and his wife to agree on bringing and picking up the kids. These are one-on-one relationships that are "strictly functional" and informative. He is also a member of a WhatsApp group where kids' afterschool and weekend activities are arranged by the parents. This group has a livelier social dynamic and interactions; run by parents who have known each other for years, it mainly revolves around football activities for the kids. Because

¹ São Paulo Public Safety Secretariat, Reuters

social activities are malleable and can change, the dynamic nature of conversation allows for more flexibility.

Public transport – Finding first and last mile solutions, arranging school runs, working on the go – are tasks many Londoners have to deal with in one way or another. Greater London is home to 8.6 million people. Over four fifths of the city’s workforce commutes into work from within this area, heavily relying on the extensive network of public transport services operating across the city’s six fare zones. The established public transportation system has a wide reach, and is generally seen to be good and reliable. This means that Londoners have high expectations towards the transportation system. It needs to work, and it needs to be reliable, as punctuality is critical for professionals, especially in the peak morning hours.

Private cars – Roads, on the other hand, are something Londoners have very little faith in. Since utility and efficiency are the key drivers behind modal choices, most would never consider commuting into work by car, as roads are considered to be “broken” and the city is seen as “not a place to drive”. Presently, London’s 2.56 m cars equate to 0.3 cars per adult². An increasing number of households opt out of having a car, particularly those living in Inner London³, where congestion is at its worst and parking is excruciatingly expensive and difficult to find. As inner city is heavily congested, cars are not seen as a viable option for peak hour commute. A parent like Chris might be doing a pooled school run locally in the early hours of the morning, picking up neighbours’ kids, counting on the favour to be reciprocated. Nevertheless, while Chris loves his car, he will not be driving into the city to work, nor would he be Uber pooling to cover the last mile to a client’s office. Reliability and punctuality are the priorities for Londoners – they can therefore not leave chances to congestion when being somewhere on time is at stake.

Taxis – Despite the congestion, the number of taxis, including traditional black cabs, various mini cab services and tap and ride apps like Uber, continues to grow⁴. Uber, having entered the scene just before the 2012 Olympics, now accounts for 40,000 drivers (twice as many as black cab drivers), increasingly putting the old-school black cab drivers out of jobs. While considered a different experience altogether in comparison to black cabs – cars less comfortable, drivers “don’t know where they are going” – the 30 percent lower fares nevertheless contribute to Uber’s ever-growing popularity. Black cabs are a luxury, used by few, or on special occasions. Ubers, on the other hand, are becoming part of the weekly routine for many.

Informal pooling – Well-established in the suburbs, informal car sharing is not generally widespread, and is mostly done within very close circles of friends, neighbours and colleagues. School runs, commutes shared between colleagues, neighbourhood pooling with “strangers that we know” – are some examples of where informal pooling fits into Londoners’ lives. Two respondents working in creative industries told us how producers

² Transport for London, Road Task Work – Technical Note 12, 2012

³ LSE Cities, Towards New Urban Mobility, 2015

⁴ Department for Transport, Taxi and Private Hire Vehicle Statistics: England 2015

typically encourage them to carpool together – to save costs and get everyone to arrive at the same time.

Pooled trips with colleagues are better value, however, are not necessarily the most pleasant way of travelling for some, particularly on the journey home. Andrew, a police officer living in Dunstable, used to share the car with a colleague twice a week, when they worked at the London Heathrow Airport. While journeys to work were perfectly enjoyable (and saved them both money), on the way home he missed the opportunity to “unwind” and de-stress. The need for personal space, particularly at the end of a long day, was a re-occurring theme amongst Londoners, whether in informal or formal pooling. “You need to be British and say hi, make small talk. It’s not relaxing, definitely not a moment for myself” – Liz summed up the way many Londoners felt about having to talk to strangers (or even people they knew) at the end of a long day.

Formal pooling – Since UberPool was introduced in London in December 2015, the city’s residents are still figuring out how it fits into their travel routine and habits, still unsure of the “rules of the road” and the social grammar of pooling with strangers. The transition to formal pooling struggles to draw on the rules established in informal pooling – particularly as the latter is not too widely practiced by many Londoners in the first place. As a result, UberPool experience is typically measured against the experience of Uber X, or other taxi services.

Hopping on an UberPool goes very much against what people were taught as children. “I was always told to never get into cars with strangers”, Molly, 71, laughed, when remembering her times ridesharing in California where she was travelling in her mid-twenties. It felt a dangerous activity then, it still makes little sense to her today. Londoners are thus hesitant when it comes to the social dynamics of travelling in cars with strangers. What came naturally to Paulistanos, causes tensions and awkwardness amongst Londoners, who are unsure whether to behave as if they are on public transport (i.e. no talking) or in a private car (talking required).

“We are British, we don’t like talking to strangers” was a sentiment many shared, particularly older respondents. “In a car, you have to talk to people” – Andrew complained to us, and many others living in and around London echoed his sentiment. However, worse than talking to strangers in cars was not actually knowing whether you are supposed to talk to them or not; the uncertainty makes for an awkward, stressful experience.

The physical space of an UberPool vehicle (typically a not very spacious Toyota Prius) is another challenge, even though it is an improvement on a crowded tube carriage in the rush hour. Because it’s a car, the expectations are different. “I don’t want to be crammed in with strangers in a car. But on the bus, you tolerate it, don’t you?” Alison, a 32-year old school teacher living in North London relied on buses heavily in her daily commute, however had a different view on bodily proximity in a car, where she wanted privacy and personal space. She admitted this was double standards, but that didn’t change the way she felt about the two modes of transportation.

Younger users are by far the ones most open to the idea of formal pooling; some are indeed attracted by a sense of adventure and serendipity. Nitika loves to take an UberPool home after a night out, and not just because of the reduced cost. “It’s so much fun, there is always banter. Always a Tinder guy who’s moody because his date wouldn’t go home with him. It’s hilarious, I love it”. Vishal similarly enjoys the serendipity of pooling: “It’s fun, like

a game. Every time I order it I always wonder who I am going to meet. My friend once met a hot girl on an UberPool and got her number. You get this thrill of meeting strangers”. The “thrill” of pooling can be emotionally exciting and attractive. But it can also be awkward and uncomfortable.

Ahmedabad

A commuter's journey – It's 9:45 in the morning and already hot, as Shivam, a 23-year-old student and a freelancer, walks down from his house in Vasna to meet up with four other friends going to the university in Motera, 16 km away. Everyone is on time and the journey begins. A few of Shivam's friends have cars, so they take turns – it is always the car's owner that gets to drive. While Shivam has a car, it's reserved for special family occasions, temple visits and festivities – he cannot use it in commuting context. Shivam and his friends take turns paying for petrol, rather than splitting the cost each time in between them. In Ahmedabad, where value is prioritised over time efficiency, it's important for the costs to be kept low. Sharing space with friends also helps them bond and have a good time: taking turns at driving on different days makes it a fun social activity where responsibility is shared by all equally.

Half an hour later, they arrive at the Chandkheda University. In the past, Shivam used the AMTS, the official state bus service, until he found a set of then strangers who appeared to be taking a similar route to his and they agreed to carpool. Pooling with his new friends works out better than using AMTS, as he doesn't have to wait at the stop on hot days and deal with crowds at the stop or during the journey. He is guaranteed a seat, A/C, and shelter from the weather, with intense heat and heavy rains making most other modes of commute stressful. Besides, the bus would take 45 minutes. Driving not only saves time, however, but is also a more pleasant and sociable experience, which gives him the opportunity to chat to friends instead of being crushed in a crowd. Despite being less comfortable, however, the AMTS was an important milestone in Shivam's life, as it allowed him to meet strangers and experience the reality of the city.

Public transport – The largest city in Gujarat and the seventh largest in India, Ahmedabad is dominated by private transport (mainly two wheelers and rickshaws): only one sixth of its 6.3 million inhabitants use public transport for getting around. This reflects on the rigid hierarchy of transport modes: with walking at the very bottom, followed by public services, private vehicles are always at the top.

The city has plenty of mobility options, however, they often struggle to address the pressing needs of Ahmedabadi commuters. AMTS (Ahmedabad Municipal Transportation System) has a fleet of 540 buses, operating 250,000 daily trips – these, however, are considered to be at the very bottom of the transport hierarchy, offering neither comfort nor flexibility: crowded, hot, and infrequent, they are not a pleasant way to get across the city. BRTS (Bus Rapid Transport System) was introduced in 2009, presently running 160 buses (of which 59 have A/C) along dedicated bus corridors across the city. Originally intended as a fast, comfortable and inclusive service that should attract poorer commuters, only few of these shifted from rickshaws over to BRTS, which offered neither flexibility, nor covered all the routes.

New developments are underway, supplementing AMTS and BRTS buses and holding a promise of better options and connectivity in the future. MEGA (Metrolink Express Gandhinagar and Ahmedabad) construction started in 2015, aiming to offer a better integration of BRTS with railway services and state-wide buses. As things stand, however, public services do not offer the point-to-point connectivity of private vehicles (highly desirable due to hot weather and heavy rains), nor do they afford the much-wanted status that comes with owning a car.

Private cars – Offering the best point-to-point connectivity, cars are linked to social status and are highly aspirational, even if regular usage is low: parking is a nightmare, and streets in the old town are often too narrow for cars to get through. Car usage is therefore often limited and associated with leisure and family occasions, rather than regular commuter journeys. Individual space and ownership remain highly desirable amongst the rising middle class and continue to be main drivers for buying cars. A car offers a protective bubble, a shelter and a refuge. Decorating and accessorising the car is a common practice, suggesting that the car space is a cherished project for the owner. For those not able to afford a car, scooters give a first taste of personal mobility. For women, it's a mobility solution that enables independence, freedom and empowerment. Such attitudes mean that formal pooling with strangers is automatically associated with “not doing well in life”, regardless of its convenience and value.

Taxis – Prior to Uber and Ola entering the scene, Ahmedabad had no history of taxis comparable to São Paulo and London. Rickshaws are the closest equivalent, and by far the most common vehicle for individual and shared rides – typically resorted to for short rides and during peak hours. They are widely available and easy to access anywhere in the city and are commonly referred to as “autos”. A well-established and common practice, they are considered a safe option for female passengers as well as male: because of their open layout, everyone can see what goes on inside.

Informal pooling – Informal pooling is typically limited to known circles of friends and family. Pooling with friends, family and colleagues makes the journey itself an important part of the experience: catching up, spending quality time together, planning ahead. In the context of family trips, pooled travel has a positive association with “care and love for immediate others as well as care for others within wider social networks” (Maxwell 2001). Tesh, a 38-year old school teacher, told us how he missed being able to take his wife and his parents on weekend trips to the temple. Since he sold his car, he has had to share his scooter with his wife, getting an Uber or an Ola for his parents. While logistics of it work out just fine, it takes away the fun of a shared journey. In much the same way, Shivam enjoys the chance to bond with his new friends while travelling to university. Arjun told us of community based pooling – also widely practised: “There are more than twenty of us going to this show tonight”. Religious, recreational and ceremonial events are typical occasions for community members to share vehicles.

Pooling with strangers is welcome for short rickshaw rides even for women. Arjun's wife told us that “sharing an auto after the Sunday market is very normal and happens a lot – it makes sense for drivers to pick up more people”. A well-established and common practice, it is considered cheap and accessible. The open layout of a rickshaw vehicle gives passengers

a sense of security, allowing them to pick who they get into the rickshaw with in the first place.

Formal pooling – Formal pooling services are often met with doubt and hesitation, as they don't have the natural feel of their closest alternative – shared rickshaw rides. Conventions in shared rickshaw journeys rely on immediate visibility. Furthermore, as rickshaws are ubiquitous, they are easy to jump on without having to use an app and wait. On the other hand, apps help create transparency and reduce haggling friction. Despite offering cost efficient travel in a city where value is king, formal pooling is a source of heated debates in the rest of the country, struggling against rising safety and legal concerns.

While informal pooling is as much about socialising as it is about travel, in the context of formal pooling with strangers, Ahmedabadis are keen to maintain socio-economic distance. Khevana, a 39-year old teacher, says she doesn't like "sitting too closely to people from different backgrounds"; the lack of choice she has over who she travels with in a formal pooling context is a clear drawback. Similarly, drivers operating formal pooling rides don't feel comfortable offering mixed gender shared rides. One of them told us that each time there is a female passenger he would tell her to move to the front seat: "You never know and I don't want to take risks in my car".

Local formal pooling services are aware of these tensions, and are seeking to resolve them. Ola Share, for instance, seeks to address safety and social proximity concerns by offering an option to choose co-riders. "You share your ride with the people you choose" – an in-app function allowing people to choose friends, co-students and colleagues to carpool with. Ola is thus beginning to operate more as an open platform than a dedicated service, allowing people to form their own pooling groups and to connect to their wider networks of "known strangers". This kind of message shows a clear appreciation of local values as well as an understanding of the passengers' need for a service that reconciles logistical requirements with those of emotional comfort.

Overall, UberPool and Ola Share can be said to have a more practical, and less of a socio-emotional dimension for people: they solve mobility needs while under-indexing on the symbolic dimension. They provide the comfort of a car without its social standing. For some, it's a compromise. For others, it's better than nothing. Despite Uber being highly standardised (the Uber app in Ahmedabad works exactly like everywhere else), and Ola seeking to be as "local" as possible, addressing the above-mentioned tensions, there is little loyalty to either of the providers (or to any other local competitors) – the only loyalty being to the best price. In reality, this means that people employ a wide range of formal mobility apps, using these depending on which happens to have the best offer at the time.

LIMINAL SPACES AND SHIFTING PERSPECTIVES IN "STRANGER SHARING"

How various formal pooling services fit into a city's mobility landscape undeniably depends on a number of "hard" factors, such as the state of existing mobility infrastructure, available public transportation services, citizens' disposable income and various sets of rules and regulations that affect formal pooling services. Thus, formal pooling may not always be a positive choice, but one brought about by the lack of alternatives. In a city like São Paulo, due to poor network coverage and undersupply of public transport, formal pooling is a

major logistical addition to the city: it may not tick all the boxes, but it's better than what people currently have. In London, on the other hand, where people have plenty of transport options, it becomes merely another option for those who want to experiment with a new, sociable way of travelling. In Ahmedabad's hot and temperamental climate, comfort and shelter offered by formal pooling vehicles is attractive; on the other hand, formal pooling encounters a number of strong socio-cultural barriers.

Differences in existing mobility landscapes and needs inevitably lead to formal pooling playing qualitatively different roles and fitting into different lacunae in urban travel in the three cities. Nevertheless, the way formal pooling is conceptualised by commuters in each cultural geography bears similarities. A Londoner may have a completely different approach and attitude to getting around their city than a Paulistano; the tensions they face when making their transport choices, however, have certain things in common.

Firstly, the positioning of formal pooling gets caught between the private and the public transportation modalities. Formal pooling thus becomes a liminal activity; it sits betwixt and between the established categories and behaviours – it's not mass transit and it's not taxi or private car. As a result, it can be hard to know for certain which "rules of the road" apply, or who is in charge. Formal pooling may be viewed as an upgraded bus (with the public elements prevailing) or a downgraded taxi (with privacy and extra comfort still being key). The way people conceive of public and private spaces is therefore essential for how attitudes to formal pooling develop.

Secondly, Londoners', Paulistanos' and Ahmedabadis' conceptions of travel swing on the pendulum between the teleological and the experiential aspects of the journey: it is all about prioritising and compromising, picking and choosing between the rational considerations such as cost, efficiency, speed, convenience, and a wide range of emotional, cultural, aesthetic and sensory factors that often go against the grain of rational choices. Millions of commuters around the world are constantly negotiating which matters most: the teleological "destination" or the experiential "journey". Travel – pooled or otherwise – is rarely just about getting from A to B: how one gets there, in what company, temperature, environment, ambience – plays a significant role in the decision-making process.

Thirdly, formal pooling exposes the dichotomy of freedom and ownership, particularly in geographies where car ownership still holds sway over the values and aspirations of the rising middle class. Sharing a car can feel constraining - to those who strive towards individual ownership associated with elevated socio-economic status. But it can also feel liberating - to those who've had enough stress associated with owning a car, and would like a more affordable alternative to traditional taxis – with a bit of serendipity and sociality thrown into the bargain. Where the scale tips in any given context can come to define whether formal carpooling will catch or fail amongst different demographics.

By looking at these tensions in the following section, we hope to illustrate the complexity, granularity and multimodality of the shared mobility phenomenon, moving away from the all too broad economic discourse that has prevailed in anthropological writing on collaborative consumption in recent years. To fully uncover the cultural, emotional and phenomenological aspects of formal pooling, we need to keep shifting perspectives between the public and the private, the teleological and the experiential. Last but not least, we need to see how the balance shifts between these categories, depending on the point of view of actors involved – drivers and passengers, owners and users, old and young, male and female.

Public/Private

Automobility has always contributed to the blurring of boundaries between public and private activities (Sheller and Urry, 2003): a mobile private enclave caught in a web of immobile public spaces, an autonomous unit adhering to collective rules and regulations. As formal pooling enters the picture, a further tension arises between what people perceive to be public and private modalities. These modalities heavily impact the nature of social interactions and shape expectations to the pooling experience itself.

In London, formal pooling is a practice that doesn't have clear rules of engagement. It sits in the ambiguous space between buses and taxis. This results in a considerable amount of uncertainty and doubt with regards to social interaction and general expectations towards the course of the journey. A city where commutes are highly ritualised and any deviation from the norm strongly discouraged, it is difficult to know how to act in a space that's liminal, a space that's neither public nor private. Even across the public domain, the expectations are known to be different: on buses, it is ok to talk to people; on the tube, it's a faux pas only a tourist would commit.

Expectations towards interaction dynamics are therefore typically linked to what Londoners believe to be right and wrong in the context of public or private transportation. As pooling sits somewhere in the middle, there are few "rules of the road" or yardsticks for people to judge formal pooling against. This leads to formal pooling constantly being caught in between and in betwixt; it is measured and positioned against taking a bus or taking a taxi, against driving or being given a lift, rather than seen as a unique modality in its own right. Various factors can make the pendulum swing one way or the other between the public and the private. Walking to meet a pooled vehicle at a pick-up spot can bring pooling experience closer to public transport and decrease its value for some riders. "If I have to walk to my pool, it's not worth it, then I might as well go get a bus. If I want it, I want it here and now" Nitika, a 26-year old Londoner, told us. A regular UberPooler, she loved late night shared journeys because they offered her a combination of emotional fun, physical comfort and reduced price. For her, pooling was a taxi at a lower cost with added fun and serendipity. A step away from that, and it suddenly becomes more "like a bus" – not an option she would consider.

As expectations towards a journey differ depending on how pooling is positioned on the spectrum between the private and the public, users demonstrate an evident lack of common language. The "do's" and "don'ts" of the journey could be completely different depending on its wider context. Who takes control over the route? Who gets dropped off first? What is the role of the driver in all this? Do I have to do any walking? Do I have to talk? Can I be on my phone?

Drivers have a big role to play in helping riders answer these questions as well as in positioning formal pooling as a practice. "If there was no driver", Vishal, a London-based account manager in his late twenties, told us, "then it would feel like being at the back of a bus or in a train carriage – like we are just there to get somewhere. Because the driver is there it feels like we are sharing a car... it makes the ride more intimate". Drivers are often expected to be responsible for what happens in a formal pooling context, for setting out the ground rules, establishing and maintaining the social dynamic. This is a burden they don't necessarily want to add to the stress of driving in a congested city. "I'm working and

focusing on the road, I don't want to deal with people being awkward or rude to each other", Khaleed, an Uber driver in his thirties, told us.

Paulistanos, on the other hand, have a much more flexible approach to interaction in both public and private transportation contexts, thanks to their shared norms of sociability and bodily proximity. What this means in practice, is that the tension between the public and the private is considerably less prominent. It is not the case of the binary not being there – but rather, of it paling in comparison with other concerns, such as cost, comfort and safety. This flexible approach allows formal pooling to rapidly cut across existing transportation categories.

Simply put, for less affluent Paulistanos pooled mobility is seen as an upgrade from the crowded and insufficient public transport options; a service that makes taxis affordable for the masses. For the more affluent, who are sick of being stuck in traffic, finding parking and worrying about their car, it is an acceptable “downgrade” from a car, which is still close enough to being in a private vehicle – minus all the worries and responsibilities. Thus, when contrasted against both public and private modes of transportation, formal pooling looks like a rather good option. With few alternatives out there, Paulistanos have a stronger incentive to make it work, and to rapidly master the social grammar of sharing.

One of the key differences between the three cities' perceptions of the public and the private transportation modalities, is the status attached to these. While Londoners prioritise efficiency above all and attach little symbolic value to the transport they use (“as long as it gets me there on time”), Paulistanos to some extent and Ahmedabadis to a huge extent link transport choices to socio-economic standing.

In Ahmedabad, aspiration is a defining feature of life. Regardless of logistical, financial and infrastructural context, private modes of transportation have an aspirational appeal that is hard to match. The hierarchy of transportation modes matters, for how you travel says something about who you are. “Once you have a car, you move away from certain types of transportation types like the AMTS and rickshaw”. Public transport thus sits at the very bottom, and private vehicles, such as scooters, and, ultimately, cars, reign at the top of the mobility ladder.

Where formal pooling fits in the hierarchy of public and private, is therefore crucial to its success or failure. In reality, Ola Share and UberPool sit closest to the rickshaws. The latter, however, are extremely familiar to the city's residents. They make it easy for them to instinctively judge the situation – the driver, the co-riders – and to make decisions on the go. This is important, as it allows passengers to maintain the much-desired social distance. Female passengers and older people in particular care a great deal about who they are pooling with. In familiar transportation contexts, they know how to work the system. OLAs and Ubers, however, represent a completely new environment. While technically being an upgrade from a rickshaw – offering A/C, route visibility, cashless payments – it doesn't allow people to make judgement calls as to who is appropriate and who is not appropriate to share a car with. Ola Share's recent addition allowing users to pick co-riders, shows an acute understanding of the social tensions that define public and private travel modalities in the city. Drivers too, work hard to seat female passengers separately from male passengers in formal pooling scenarios, taking it upon themselves to create the right dynamic in the vehicle. As in London, the role of the driver in helping the passengers establish the right social dynamic is paramount for the success of formal pooling.

In all three cities, formal pooling highlights the contrasting norms of privacy and sociability which drivers *and* poolers need to resolve. Riders often expect for the driver to help establish the right dynamic, helping the passengers decide whether the vehicle is private or public. The drivers, however, don't always have clear answers, despite wanting to have a bigger say in what goes on in (typically) their car. Stories of awkwardness were shared by drivers operating formal pooling journeys across the three cities – with us, as well as with our respondents. “Horror” stories were interpreted by passengers as drivers’ attempt to put them off pooling simply because they were paid less in a pool. While there was truth to that, such “warnings” had nevertheless as much to do with the fact that drivers don't want to deal with the negativity that arises from lack of basic ground rules. Drivers are not in the least interested in being the ones establishing rules of behaviour, nor do they see it as their job to carve out a distinctive space for formal pooling, reconciling the tensions between the public and the private. This is a task that needs to be done collectively, with drivers, passengers, and app developers all actively involved.

Teleological/Experiential

Choosing one mode of transportation over another is never simply about rational, function-based decisions. A number of urban anthropologists have shown how mobility choices are deeply entrenched in emotional and sensory responses to acts like driving or being driven. Our relationship with cars in particular has had much attention from the anthropological community. Car consumption has been linked to patterns of kinship, sociality, habitation and work (Sheller 2004). The relationship between cars and people has been described as “intimate” (Miller 2001b) or even as a “love affair” (Motavalli 2001), suggesting there is much more to cars than a set of hardware and software functions.

Other modes of transportation similarly engage and affect our senses and desires: waiting in the rain for one's bus to arrive; standing up in a crowded carriage with no signal; scootering down a long dusty road in forty degrees' heat; queuing to get on a train during peak hour: the mental, physical and emotional impact of these embodied experiences shape people's relationship with their city, moulding the ways in which they navigate across different mobility options, making their choices – to pool or not to pool. Sharing a car with others – formally or informally – inevitably draws upon a wide range of cultural, experiential and sensory associations, which often go against rational decision making.

It may well be that getting a private taxi would result in a quicker journey and still be affordable; after a night out in Soho, however, Nitika prefers having the company of others: “It's more fun that way”. It will take her longer to get home, but the experience will be more enjoyable. Serendipity and fun attract younger Londoners, like Nitika and Vishal, while also making some feel virtuous about being good citizens. “I feel like using UberPool is better for the environment. I don't feel guilty over adding to the congestion and therefore increasing the pollution levels” John, another regular late night-time UberPooler, confessed.

Change the context, and the same people come to dread the serendipity of social encounters. During the journey home from work, London commuters like “zoning out” and relaxing. Some people want their journey to be their “decompression” time, others want it to be productive. Whether texting a friend, checking news or email, it is important to be doing something with transit time. Journeys have to mean something. Where formal pooling can create an environment that is conducive to creating that meaning, it strikes the right cords;

however, if instead it amounts to social awkwardness and uncertainty around interaction with others, the experience won't be considered a positive one. A journey that goes along the same route, at the same speed, in the same vehicle, can be experienced in completely different ways, depending on the time of day, the mood and the needs of the passenger.

Tweak the time of day to the rush hour commute, and the picture changes once again. Here, experiential aspect of the journey is the last thing on people's mind. In a city like London, with its congested roads and tight timeframes (punctuality is key) – rush hour journeys, particularly in the morning, have to be efficient; one needs to be on time. For the vast majority of commuters in London being on time for work outweighs the comfort of being in a car. As formal pooling involves multiple pick up and drop off points, and sometimes significant diversions, it does not answer the commuters' need for punctuality, most acute in the mornings: every minute is counted, every mile is measured in time.

In São Paulo, the experiential aspect is particularly important for longer distance journeys. Creating the right environment is worth investing time and effort in. Felipe's "fretada" service, much like formal pooling, is caught somewhere between the public and the private transportation modalities. Which prevails – is very much up to the riders to establish: which is why they work very hard to create an ambience that is pleasant, personal and relaxing. Felipe starts off his week by having a breakfast with his friends from the "fretada" service: they form a community, a group of friends. "The journey is more enjoyable with people you know. If one of us is late for the fretada, he can text the group and they will ask the driver to wait". Felipe's practice of social engagement with his co-poolers goes well beyond the context of travel. It shows the extent to which pooling can be about sociability as much as it is about mobility; there are times when journey matters as much as the destination.

In hot temperamental climates, experiential and sensory aspects of the journey often come down to protection from the heat and the rain. It may take longer, but the shelter a car provides is worth the effort. Marcela won't walk the hills of São Paulo in the rain, however short and "walkable" the distance is. Andre, unlike many fellow Paulistanos, doesn't enjoy proximity with strangers. Nevertheless, he cannot afford a private taxi, so the relative physical comfort and shelter of an UberPool trumps the emotional discomfort of being close to strangers. It is thus not only experiential and teleological aspects of the journey that play out against each other, but different factors within each type of needs that can be in conflict.

In Ahmedabad, a city of forty degrees' heat and heavy monsoons, physical comfort is thus crucial. High congestion and time wasted in traffic retreat into the background. In fact, the higher the congestion, the higher the tendency to opt for cars. "I would rather be stuck in a car than on a bus with no A/C", many told us. Older people in particular value the comfortable experience above speed and efficiency.

On the other hand, there is the afore-mentioned socio-emotional need to maintain distance. While sociality is central to informal pooling practices amongst friends and family, these attitudes don't translate into the formal pooling context. The desire to maintain social distance from people who are further down the socio-economic ladder, can lead to formal pooling being experienced as stressful and inappropriate. When this happens, it may well be a deal breaker, trumping the cost effectiveness, physical comfort and formal pooling's relatively high standing in the transport hierarchy. While both app developers and drivers actively seek to address these tensions, it remains critical for understanding how people make transportation choices.

The choice – or perhaps the continuous compromise – between teleological and experiential aspects of a journey, is never constant. It has to be negotiated depending on the context and the purpose of the journey, the age, the gender, the mood of the riders. Inner-city rush hour commute, long distance family weekend trips, Friday night late ride home – these journeys relate to different needs and show just how much the pendulum can swing between logistical considerations and emotional biases. Interaction with others is one of the key areas where people have to balance their social and emotional needs against functional benefits such as reduced cost and elimination of first mile challenges. Pooling offers a highly social experience compared to typically “asocial” experiences of public transportation modes, or isolated experiences of private driving. For many of those who chose to pool, the fun, randomness and sociability of pooling is an appeal that often trumps the savings. For those who choose not to pool, the very same experiential aspects are often the reason behind their decision.

Comfort may come at the cost of time, and serendipity of social encounters in a closed space is as much of an appeal to some as it is a deterrent to others. What people do with their journeys may or may not be rational, but they do it to gain control, to be the kind of person they want to be, and to achieve something that matters to them.

Freedom/Ownership

One of the biggest emotional benefits that can be derived from owning a car is the feeling of socio-economic achievement. Purchasing a car has traditionally been associated with becoming a part of the middle class; it is attractive “to the young and the poor because of the sense of displayed personal identity it conveys” (Stradling et al 2001). Such attitudes, witnessed both in Ahmedabad and São Paulo (however not in London) support classical theories describing the world of old mobility, where car owners are seen to view their vehicles as prosthetic extensions of their bodies and souls, life aspirations and fantasy worlds (Freund 1993; Brandon 2002).

Emotional investments in cars inevitably makes formal pooling seem less attractive. Despite being more comfortable and private than public transport alternatives, pooling with strangers doesn’t convey the much-desired socio-economic status and therefore has little cultural appeal for the aspiring middle classes, who still perceive ownership as the main means of capital accumulation, “a way to provide a sense of personal independence and security” (Snare 1972).

Over the last decade, however, the idea of ownership as the only means to a very singular socio-economic end has received considerable amount of critique for being somewhat problematic in an increasingly liquid society (Bardhi & Eckhardt 2012; Bauman 2007). The “coercive freedom of driving” (Sheller and Urry 2000) stands in stark contrast to the freedom from owning things and the freedom to move in the greatest variety of ways (Montgomery 2013). With the responsibilities (and liabilities) removed, people can become free from having to plan ahead and spend money on maintenance. As ownership becomes less attainable (Cheshire et al 2010), formal pooling finds itself in a space where century-old values clash against new opportunities.

Londoners are furthest away from linking car ownership to financial aspirations. Only the older respondents still displayed a sense of pride in owning a car: “I’m very territorial about my car – it’s like my second home” – Molly, a 72-year-old part time secretary living in

North London, told us. The majority of Londoners we spoke with, however, didn't see the appeal. "Our generation is not into possessions but into experiences. Car is a responsibility I don't want to bear" – Vishal explained to us how congestion, parking costs and the stress of driving make owning a car undesirable. Buying a car demonstrates a sense of commitment he isn't ready for; an attitude to life that doesn't match his desire to feel young and free. Formal pooling enables younger commuters like Vishal to "differentiate themselves from owners of vehicles that entail many liabilities" (Bardhi & Eckhardt 2012). It is freedom from owning things – "freedom distilled" (Britton in Montgomery 2013) – that urban dwellers are beginning to aspire to, trading in the ideal of ownership which is starting to feel constraining and old-fashioned.

In São Paulo, younger generations are slowly beginning to arrive at similar conclusions. Older generations, nevertheless, still reminisce over getting their first vehicle, the act marking their passage into adulthood. "You never forget your first car", Jose, a 68-year-old accountant told us, with a sentimental, almost romantic longing in his voice. He acknowledged that the age of the car was behind. "For my sons, it's different. It's a just car. These days they often just hop on an Uber because it's less hassle. Increasingly, I do the same". Historically an urban rite of passage, a sign of status and success, car ownership is slowly but steadily losing its status as the ultimate expression of consumer desire in the context of mobility (Chen 2009, Marx 2011). Instead, flexibility, freedom from constraints and responsibilities, and, last but not least, practicality, are beginning to outweigh the desire for ownership (Bauman 2000; Levine 2009). Marcela told us: "I sold my car years ago. Many of my friends still have theirs, but hardly ever use them. It just takes up too much of your time and is stressful". Andre had a similar experience himself. "I got my first car and a driving license when I was still at high school. I felt like a cool kid. But soon it wore off. I grew up and decided I've had enough of driving. The same happened to a lot of my friends".

In Ahmedabad, however, car ownership still significantly outweighs car usage, a result of the social image most citizens are eager to project: a car owner is an economically successful and independent individual. Buying a car is highly aspirational for the rising middle class. "What's my own is my own" - Ruchit, a 30-year-old appliances salesman, told us. Ruchit doesn't currently have a car, nor would he have anywhere to park one if he did (he would have to store it in the other side of town at a family member's garage). For him and for many others, a car is something that signifies status. Arriving in a private vehicle would signal to others that he was a successful young man. Hardik, a 36-year-old businessman went even further, arguing that "you can build a personality by having a car". Car owners spend great amounts of time decorating and personalising their vehicles, conveying their own identity onto the much-cherished car space – a second home; a shelter from the world.

Even in Ahmedabad, however, a shift from ownership to flexibility is slowly taking place. Modi, a 36-year old hospital supervisor, told us she would not have bought a car if services like Uber and Ola were available five years ago. Tesh sold his car due to serious parking challenges in his part of the city: he now relies on a combination of scooter, public transportation and formal pooled services. Even in locations where ownership is highly aspirational, flexibility that comes with freedom from owning things is often far more practical.

The increased flexibility and freedom that come with the "new" *freedom from* ownership, comes at a cost. Aggregation of people inevitably means aggregation of unknown people, and the unknown creates a reduction of control amongst riders – something we witnessed

across all three cities. Herein lies one of formal pooling's key departures from its informal counterpart. A distinguishing characteristic of car sharing, "interdependency between participating consumers, demonstrating a high level of consumer involvement" (Bardhi & Eckhardt 2012) – disappears in a context where even the driver has to give up control – for the algorithm to take over. The latter, of course, is not only blind to cultural, social and emotional needs of the passengers, but more often than not also to the landscape, character and life of the city.

Losing the *freedom to* choose the route and the co-riders is the price many struggle to accept. Urban commuters in the twenty first century may not want to own a car, but they want to "own" the journey; they also want to feel safe. In-app surveillance and command controls in formal pooling contexts are welcomed by female riders in particular, supporting McGrath's (2004) controversial conclusion that big brother control models can be beneficial to consumers in the context of negative reciprocity transactions (Sahlins 1972), where goods and services are exchanged with one side always benefitting at the cost of the other.

In London, this tension doesn't get resolved: passengers begrudgingly learn to accept the lack of control over the route and the drop offs, resorting to vocalising their annoyance when diversions get too big. "People get annoyed if they get in first and get dropped off last. They feel like their time is being wasted, and they think it's my fault" an Uber driver in London complained. Liz, a 33-year old actress living in East London, shared a similar experience: "People always feel that if they get on first they should be dropped off first, there is no way of changing that". In Ahmedabad, the need for control is so high, that formal pooling app developers are swiftly reacting, by giving passengers the ability to choose their co-riders (discussed above). However, the route is still decided by algorithms that tap and ride services so heavily rely on. In São Paulo, riders resorted to social media to create, at the very least, a semblance of agency. Whether checking someone's Facebook profile or reporting to one's family on one's whereabouts on WhatsApp actually resulted in increased safety, is hard to tell. Nevertheless, these kinds of actions helped people alleviate the feeling of losing control. Negotiating between *freedom from* and *freedom to* is not an easy process. As mobility landscape across the world changes, people are beginning to keenly engage in those kinds of negotiations in order to make sense of what mobility is about in their cities.

FINAL WORDS

By exploring the differences in how formal car sharing is experienced across the three markets, this paper sought to highlight the ethnographic value of shifting perspectives between liminal spaces that such practices occupy; and between different players in formal carpooling. We came along on our respondents' daily journeys; we immersed ourselves in the crowds and the queues, in the heat and the rain, and in a number of agonizing traffic jams; we travelled at the back and at the front of cars, carriages, buses and rickshaws. In doing all this and much more, we tried to understand mobility from the point of view of the passenger as well as the driver, witnessing first-hand how formal pooling practices are shaped. This method proved extremely useful not only for understanding the complex sociality of transportation, but ultimately for tying this new knowledge back to the mobility industry, and generating valuable strategic insights.

On the one hand, we looked at tensions and contrasts that come to define users' attitudes towards pooling. Ethnographic method allowed us to repeatedly shift the focus

from private to public positioning; from teleological to experiential aspects of the journey; and from aspirations of freedom and ownership, to those of flexibility and control. It allowed us to explore norms and values, goals and desires, social structures and cultural biases that define people's relationship to urban travel in general and formal pooling in particular. We have shown how positioning of formal pooling is key to setting up expectations for the experience and helping users master the language of sharing. We have highlighted the compromises and dilemmas between what makes most sense and what "feels good" – choices commuters face daily when choosing between the teleological and the experiential aspects of a journey. Last but not least we looked at socio-economic values and aspirations, and explored the shifts and the transformations people's perception of urban mobility. As desire for ownership ebbs away in some places (while still holding sway in others), we saw people across continents embrace freedom and flexibility that new mobility brought with it.

By going into the field and participating in embodied travel activities side by side with Uber drivers, early morning commuters and late night "party poolers", we were able to see how attitudes change depending on one's role and place in the transaction: male or female, young or elderly, driver or passenger – all had different embodied experiences of formal pooling, which cut across and add further complexity to the socio-cultural context of urban travel. Personal safety and socio-economic status; serendipity and adventure; risks and liabilities – these had different meaning and priorities for different actors.

Like other forms of sharing, car sharing isn't a new phenomenon. We have contrasted formal pooling against a number of well-established informal pooling practices. We looked at the ways in which these informal practices fit into people lives, and are entangled in nets of close relationships – between families and neighbours, friends and colleagues. As they become formalised, however, culturally intuitive behavioural models and practices inevitably get lost in translation. Interacting with strangers in a confined space, negotiating route diversions, managing various cultural and social uncertainties: to many, formal pooling meant learning a whole new social grammar.

Learning this new grammar of sharing is above all a collective project. It requires all parties' involvement and time. Examples of long-standing informal pooling practices throughout the paper show that shared social grammars take time to emerge – a fact often ignored by the algorithms behind formal pooling services.

The success of formal pooling depends highly on getting the grammar and the language right, on establishing culturally sensitive rules of engagement all parties are happy to honour: commuters, drivers, public sector policy makers and private sector innovators. But first, they need to be established through active involvement and participation on behalf of drivers and passengers alike.

Moving away from broad and overarching definitions such as the "sharing economy" we attempted to outline a more fluid but also more focused perspective on practices that involve sharing and economic transactions. Shifting between categories, and between actors involved, has allowed us to glance at the granularities of formal car sharing practices, and the different roles these come to play across continents, cities, and people's lives. To have and have not, along with many other dilemmas faced by today's urban dwellers, is a question that does not have a clear answer. As the perspectives shift, and we experience pooling through the eyes of drivers, passengers, men and women, the young and the old – needs and desires change as well. Mobility needs to be studied "in motion", as it were – always moving from

person to person, from back seat to front seat, and even to driver's seat. By exploring these shifting perspectives, we hope to have presented a fresh, ethnographically rich and critical perspective on sharing practices in the context of an industry in flux.

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NOTES

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Papers 1 – Making Culture Visible

Surveillance, Technology, and American Conceptions of Freedom

MIKE GRIFFIN

Amazon

This paper traces the role of ideology in shaping the beliefs and situated knowledge used by information technology and security managers to make sense of and justify systems of surveillance they oversee. In particular, the analysis explores the role of the contested meanings of the ideology of 'freedom' as an important resource in this process of meaning construction, providing a ground-level account of the process of interpellation, described by Louis Althusser as the subjectification of individuals by ideology made available from dominant discourse.

INTRODUCTION

In conversation, the head of security of a school district in the suburban United States described a project that he was in the process of implementing across his schools. He had tied together a number of security technologies into a single centrally managed system that he explained was known as a PSIM (“pee’-sim”)—a physical security information management system. The technology components consisted of automated cameras with a view overlooking school buildings and areas of the surrounding neighborhood, automated locks on classroom doors, “mini command centers” at reception desks, “duress pendants” worn by secretaries, geo-fenced social media monitoring, and cell phone tracking systems within buildings. All of these fed into a central command center at the district office with wall-sized banks of monitors enabling security staff to look in on and manage situations they were alerted to by people on campus or automated notifications. He described the benefits of the PSIM implementation enthusiastically, portraying students and teachers as being “empowered” by their emergency drill training, and their ability to call lockdowns from any intercom box across the campus. He went on to explain how these components “when they’re deployed correctly and right, enhance your learning environment and your school.” In his depiction, there was no sense of concerns often expressed in discussions of surveillance, for example about tradeoffs between privacy and security. Instead, he summarized his positive assessment of the system saying, “I believe this technology enhances our freedom. That’s just my thought.” The statement was jolting.

In many further conversations with managers involved in projects of surveillance, ruptures in meaning arose like the one described above, clashes between the ‘common sense’ perspectives of researchers and participants, and among participants. As Louis Althusser argued in “Ideology and Ideological State Apparatuses” (1971), such commonsense beliefs often come to be seen as “obvious” through the process of interpellation, whereby subjects freely incorporate ideology into their conceptions of self. In our conversations about surveillance and security, the concept of ‘freedom’ emerged as an important resource for participants in making sense of their own practices and systems. As the historian Eric Foner (1998) has shown, the ideology of freedom has been a continuous site of contention in the

United States, and has produced multiple, often opposing meanings over time and among actors. This paper demonstrates an approach interrogating participants' statements through the lens of ideology, and further through the prism of the popular discourse and historical contestation that accompanies the ideology of freedom, which allowed us to resolve otherwise puzzling statements, like the one above. Additionally, this paper makes the case that such analysis can lead to a deeper understanding of the epistemes of managers of surveillant systems, placing those statements in the context of a process of cultural reproduction of surveillance.

An Exploratory Project

As part of a technology-focused new business incubation organization focused on computational optics and machine learning, I participated as a researcher on a team whose goal was to assess potential markets for a new generation of 'smart cameras.' This burgeoning class of products combines digital cameras with sensors and advanced computing approaches to enable a range of capabilities that extend security and business intelligence applications in public spaces.

Marketing materials for products in this area illustrate applications as simple as people counters generating heat maps in retail spaces, and as sophisticated as facial recognition, gait identification, gender identification, age estimation, gaze detection, and affect approximation. At industry conferences, it's easy to find live demonstrations of any of these capabilities, along with more fundamental innovations like extreme low light sensitivity, and high order optical magnification.

What followed from this focus was an interest in learning from people at various positions involved in making buying decisions related to classes of products we had an interest in—cameras, networks, video management systems, monitoring services, and services like system installation and management. Because of the preliminary nature of the project, we adopted a lightweight method employing semi-structured, remote, in-depth interviews with informants interestingly positioned in the space of buying and deploying surveillant systems. We developed a protocol, conducted interviews, and also participated in interviews conducted by extended team members, anticipating that further engagement would involve participant observation, an approach researchers on the team have used in the past. Our reliance on interviewing led naturally to a focus on discourse, the narratives of our participants used in describing how they understand their role in surveillance processes, including in terms of attitudes, beliefs, and perceptions.

This project brought many of us on the team into contact with, and implicated us within, the domain of surveillance for the first time in our careers. As members of the US public, we have broad exposure to narratives that emphasize the negative dimensions of increasing state and corporate surveillance. At the same time, we found ourselves enlisted in a project of technological extension of surveillance. Our position placed us in a state of alternation between imagining futures for, and resisting the expansion of surveillance, in new roles as both surveilled citizen-consumers and not-yet-producers of surveillance technology.

In the end, we spoke with nearly 30 participants, including the chief security officer at a multinational retail chain, the director of information technology (IT) and security for a medical marijuana dispensary, the head of IT for a metropolitan sheriff's office, a franchise

owner of several snack shop chains, the head of security for a school district, regional managers for apparel retailers, and a vice president of marketing for a retail analytics startup.

Multiple authors have pointed to a need for more investigation into the realm of surveillance using methods that examine surveillant experiences from the ground up to complement predominantly structural accounts in which “personal accounts and circumstances are often indirectly assumed rather than empirically solicited” (Smith 2015). As Lee (2015) noted, this has motivated an increase in qualitative research, including study of the experiences CCTV camera operators (Smith 2015), analysts involved in online consumer surveillance (Andrejevic 2002), computer based performance monitoring (Ball 2001), and in young people’s negotiations around surveillance (boyd 2014).

Our project had the effect of opening lines of visibility into the ways surveillance is produced in part as a result of everyday beliefs of IT project management and security management. Rather than focusing on the perspectives of the surveilled or the surveillant as such, this data illuminated the administrators and managers of surveillant systems—those charged with buying, installing, deploying, maintaining, justifying, and only rarely manipulating such systems themselves.

BACKGROUND

By most accounts, we are living in a state of near-total surveillance by government and private interests (Lyon 2001, Murakami Wood et al. 2006, Green 2015, Haggerty 2000). In a description representative in the surveillance literature, one researcher explained that “the creation, collection and processing of data is a ubiquitous phenomenon. Both private corporations and government agencies take advantage of the increasing technical capability of information systems to gather, process, and store consumer and citizen data” (Dinev 2005). Surveillance is pervasive. And yet its extent is veiled.

Much has been written in the popular press about the rise of technological surveillance. In the wake of the 9/11 attacks in the US, there was significant debate about the USA PATRIOT Act, which established a new regime of communications monitoring (among other measures) in the hopes of providing intelligence that would prevent future similar attacks. In recent years, press attention has focused on dimensions of online surveillance, especially in light of revelations stemming from Edward Snowden’s 2013 release of documents describing extraordinarily comprehensive systems developed by the NSA and GCHQ for tracking citizens’ communications. In the US, attention has more recently focused on transactional data captured by retailers both in store and online, along with profiling and ad targeting that’s become a pronounced feature of Internet-mediated life. The dark potential of aggregating this kind of data has been highlighted in numerous reports of credit card and social networking data hacks, including identity theft.

In 2012, a New York Times Magazine article detailing Target’s predictive analytics team was amplified by a Forbes article titled “How Target Figured Out a Teen Girl Was Pregnant Before Her Father Did” (Duhigg 2012, Hill 2012). The story advanced a theme familiar in media accounts that a kind of total knowledge is becoming (or has already become) available to states and corporations. Last year a company in U.K. gained some notoriety for deploying psychographic profiling to identify Facebook users for targeted messaging that the company leaders claimed (against significant pushback) may have turned the tide in the latest US presidential election. The promise or fear is that those with access to the tools or data may

understand ourselves better than we do. Even further, with that imagined level of insight, it would seem a trivial step to manipulate behavior to benefit these actors unconsciously.

The emergence of extensive and highly visible camera surveillance in public spaces in the UK also received a great deal of press attention starting in 2013. Camera surveillance is used extensively in US public and private spaces as well, but hasn't garnered quite the same level of attention.

These revelations have had an influence on the American public's beliefs about surveillance. In the wake of the Snowden stories, for example, Pew polling found that 87% of respondents were aware of the NSA program (Madden 2015). In spite of the increased level of concern, however, Americans didn't seem to know what to make of the knowledge, and didn't report making significant changes in behavior. Again according to Pew, combining findings from a number of studies over three years, 93% of US adults say that being in control of who can get information about them is important, and 88% say it is important that they not have someone watch or listen to them without their permission, while only 9% say they feel they have "a lot" of control over how much information is collected about them and how it is used. More than half of Americans – 56% – say it is important to them not to be monitored at work, while 81% agree that surveillance cameras are hard to avoid (Madden 2015).

The Pew report also included summaries of focus group session quotes that surfaced some of the emotions and attitudes that corresponded with these beliefs. One participant invoked George Orwell's *Nineteen Eighty-Four*, an unavoidable reference in any discussion of surveillance, saying, "Big Bro is always watching." Another respondent expressed a sense of resignation at the totality of the embrace of the surveillance society, saying, "Anything digital can record, even a car today tells everything, your cell phone even when it is off is still sending info to the towers" (Madden 2015).

Frames of Surveillance: *Nineteen Eighty-Four* and The Panopticon

By design, surveillance systems introduce and enforce an imbalance of power between subjects of surveillance and observers. Such systems establish lines of sight for observers which are obscured or invisible for the observed.

As Kevin Haggerty and Richard Ericson (2000) emphasized, the writing of two authors dominate discussion of surveillance and each serves to reinforce this top-down framing of "asymmetrical (il)legibility." George Orwell's *Nineteen Eighty-Four* elaborated a vision of a society in which most citizens are under constant state surveillance. This vision, as seen in the quote above, resonates today. Michel Foucault's depiction of the panopticon provides the other dominant metaphor (though less established in popular discourse), analyzing Jeremy Bentham's design of a prison in which a single observer can observe every prisoner, while no prisoner can know when, specifically, he is under observation. Foucault then explained how that kind of surveillance led to an internalization of discipline, in which the prisoner's relationship with himself is transformed, a new model of power relevant for analysis of a broad array of modern institutions. This metaphor continues to be used as surveillance regimes expand rapidly, extending to terms like 'electronic panopticon' and 'superpanopticon' "in line with a general tendency in the literature to offer more and more examples of total or creeping surveillance" (Haggerty 2000). Both of these metaphors

suggest a kind of totalizing bureaucratic efficiency, in which no citizen or prisoner goes unseen.

Anyone who has experience working in almost any kind of public or private bureaucracy would be forgiven for suspecting that this kind of totalization might be *prima facie* an incomplete account. Even in the press accounts of surveillance programs noted here, there's been significant pushback against their claims of extreme efficacy. Commentators have noted, for instance, that the Target pregnancy story seems, on further inspection, a bit implausible. The father cited in the article remains anonymous, and the idea of Target sending mailers with only pregnancy-related offers to any customer—even legitimately expectant mothers—carries such a risk of offending customers that the likelihood of its having occurred as recounted in these stories seems low (Piatetsky 2014). Even so, true or not, the story and others like it inform public understanding of the state of surveillance in commercial spaces.

Kate Crawford (2014), in a close reading of the documents surfaced in the Snowden articles, pointed out how they seemed to reveal the imprecision, ontological slippage and bureaucratic anxiety of those organizations through the clip art-ridden PowerPoint slides created by managers of GCHQ's Squeaky Dolphin program to pitch their capabilities and bid for funding.

In fact, our conversations with managers supports this skepticism of accounts that characterize surveillance programs as excessively efficient or total. Just as surveilled subjects have limited lines of sight into these systems, so to do the managers responsible for establishing and maintaining surveillant systems.

Terms of Surveillance: Privacy, Security, Control, and Trust

Popular discussions of surveillance tend to frame the issues using a limited vocabulary of terms that tend to be ill-defined. As Gavin Smith (2015) puts it, surveillance is “a thoroughly equivocal term” used to arouse hysteria, emphasize security enhancements or reductions in liberty, and highlight instances of discrimination or thwarting of threats.

A recent study (Watson, Finn, and Barnard-Wills 2017), identified four key terms that were used repeatedly in public surveys related to surveillance that they argue frame public discourse in the space: privacy, security, control, and trust. Further, the study found that surveys on privacy suffered from “vague definitions, a narrow focus in conceptualisation of terms and a missing link in the exploration of the intra-relationship between” those terms. For example, only 11 of 17 surveys on privacy defined the term ‘privacy,’ and 9 of 12 surveys on surveillance use examples rather than definitions (of which the Pew surveys referenced above, emphasis on privacy and control, provide a nice example). These themes were also explored at depth by Christena Nippert-Eng in her book *Islands of Privacy*, which provided detailed interpretations of interviews with suburban Americans making sense of their own experiences of under surveillance (Nippert-Eng 2010). The notion of privacy was brought up directly and indirectly by a number of participants, in ways can be seen to have a close relationship with notions of freedom.

Althusser's Theory of Ideology

Ideas that circulate in popular discourse, including ideas about surveillance, can be understood as articulations of ideology. Louis Althusser in “Ideology and Ideological State Apparatuses” (1971) established a theory of ideology within Marxist theory, as a key resource enabling reproduction of social phenomena, as well as the formation of subjective identity. Althusser described ideology as the representation of imagined relations individuals hold about their real (material) conditions of existence. In this sense, he saw them as an ‘assemblage’ of concepts drawn from ideas made available from dominant discourse. Specifically, Althusser argued that these ideas are inculcated in individuals through their engagement with Ideological State Apparatuses (ISAs) including the educational system, the media, the church, and the family, for example, colorfully describing how the mass communications contribute in “cramming every ‘citizen’ with daily doses of nationalism, chauvinism, liberalism, moralism, etc, by means of the press, the radio and television.”

Althusser described the process through which individuals internalize ideology as one of *interpellation*. In this model, ideology *hails* an individual, calling out to them in a way that the individual recognizes the ideology as intended, and fitting, for her. Althusser used the metaphor of a policeman calling “Hey you!” on the street. The appropriate individual, sensing the tone of the interjection, turns around in response, thereby making herself subject to the ideology—that is, turning from an individual into a subject. Althusser made the point that that the notion of the subject in this process is ambiguous, possessing a dual nature. On the one hand, the subject is ruled by the ideology which has interpellated her (and thus made herself subject to the overarching ideology of the ruling class). In another sense, the subject has freely chosen the particular hailing of the particular ideology she’s responded to, in that sense demonstrating agency in making distinctions among positions available in her social world. While the temporal framing described above is helpful in explaining the process of interpellation, Althusser further argued that subjects are, in fact, always already-interpellated. In his view, this subjectification begins before birth, when an imagined subject’s family name, individuality, and class position is determined. Since interpellation cycles continuously as subjects encounter and reproduce ideological articulations, it can also be understood at the level of the subject as a theory of learning, and of identity construction.

We saw evidence of this process in our conversations with managers, in their roles both as assemblers of surveillant systems themselves (i.e., technologies and practices of surveillance), and as assemblers of the ideology representing the relations that support those systems. In recognizing their own identities in common background beliefs, and leveraging them justify the implementation, perpetuation, and expansion of specific systems, these managers also contributed to the reproduction of the social relations supporting the broader social phenomena of surveillance.

Foner's History of 'Freedom' in the United States

While Althusser stated that ideology in general “has no history, or, what comes to the same thing, is eternal,” particular ideologies can be shown to take different forms over time and place. In *The Story of American Freedom*, Eric Foner elaborates a framework describing the ways that the concept of ‘freedom’ has been used throughout American history.

Drawing on Isaiah Berlin's (and Kant's) notions of positive ('freedom to') and negative ('freedom from') liberty, Foner evaluates the competing meanings of freedom in American political discourse in periods from the Revolution through the mid-1990s, paying special attention to sorting out which groups of people stood to gain and lose power in each formulation. Such a framework can act as a prism that reveals the notion of freedom as one that can be refracted from many angles at once, often putting the same word, "freedom" (or its twin, "liberty"), to opposing ends.

For example, Foner cites a 1645 speech by Massachusetts colonial governor John Winthrop that exemplifies a conception of freedom that seems counterintuitive to modern ears. Winthrop focused on the importance of "moral liberty... a liberty to do only good," which represented a kind of inner freedom of self-abnegation "compatible with severe restraints on freedom of speech, religion, movement and personal behavior..." and ultimately with submission to secular authority (Foner 1998).

After the Revolution and Declaration of Independence, freedom was only truly available to "those within the circle of free citizens" which was limited to white, property owning males. As Foner writes, "the Revolution did not undo the obedience to which male heads of household were entitled from their wives, children, employees, and slaves."

In the period leading up to the Civil War, the notion of freedom was bent to the purpose of defending and justifying its diametric opposite, the institution of slavery. In the writings of southerners John Calhoun and George Fitzhugh, these arguments took the form of a critique of relations between capital and labor. Calhoun (1856) described the situation in this way:

The fact cannot be disguised that there is and always has been, in an advanced stage of wealth and civilization; a conflict between labor and capital. Slavery exempts Southern society from the disorders and dangers resulting from this conflict. This explains why the political condition of the slaveholding States has been so much more stable and quiet than that of the North.

In those terms, slavery was posited to free Southern society from the discord caused by labor's alienation. Fitzhugh (1857) took the tortuous logic of this line of reasoning to its logical conclusion, in an essay called "The Blessings of Slavery," writing:

The negro slaves of the South are the happiest, and in some sense, the freest people in the world... The free laborer must work or starve.

In this argument Fitzhugh directly asserts slavery as itself a form of freedom—a freedom *from* the anxiety associated with self-determination (positive freedom) in a capitalist system. Such diabolical flexibility anticipates the concept of doublethink associated with *Nineteen Eighty-Four*, in which a slogan of the book's English Socialist Party of Oceania reads: "Freedom is Slavery."

Given the plasticity of the term, it's clear that any assertion about freedom is worthy of at least some level of inspection and interpretation. This framework for untangling the contradictory and oppositional conceptions of freedom became a critical resource in making sense of the divergent and counterintuitive views that emerged from interviews with our managers of surveillance.

EMERGENT THEMES AMONG MANAGERS OF SURVEILLANT SYSTEMS

Our conversations with IT and security managers made available the language they used to describe their organization's use of video in stores, workplaces, and civic spaces, and the beliefs and attitudes they expressed about its use, potential, and meaning. These conversations, then, enabled us to see areas of convergence and divergence among respondents' descriptions of surveillant systems. As will be seen, throughout these conversations, the ideology (and in fact, multiple competing ideologies) of freedom played a particularly prominent role.

Surveillance of Employees

Language managers used to describe their tracking of employee activity was striking in the ways they revealed tensions between managers and workers. While the levels of pervasiveness of tracking varied, most managers expressed sensitivity to the risks of making that surveillance visible to employees. The head of security for a marijuana supplier described their practices as mostly retrospective, but carrying significant consequences for employees.

Employee activity, we don't monitor unless there's a situation, then we'll go back and review tape. I have a guy in South Carolina that does random spot checks, my super-secret guy in South Carolina that does all my spying for me... Mostly the video and audio that we get from it is almost entirely used for human resources. The HR department always needs a good reason to fire somebody.

The head of security for a pharmacy chain used similarly hidden approaches to track down cases of employee theft.

At the support office, we have a team that data mines data from the point of sale POS... and they then look at anomalies that would indicate fraud or theft. And then if they get to the point that indicates that what they may have then they use the video to determine what they have. And very often, every day, on the front end they're sending out investigative packages via email that contain the data and video to a guy in the field that says basically saying "Hey this employee is doing this bad thing, stealing, go get him." And then the field guy goes out and talks to the guy and finishes the investigation.

Both of these depictions indicate that these organizations go to some trouble to create infrastructures to definitively respond to employee theft, and at the same time keep surveillance hidden from view of employees. At the same time, the marijuana security had suggested that he believes employee anxiety about the potential of surveillance can impact their behavior, presumably for the better.

Our employees think they're being watched 24/7. There's something about perception you know what I mean... [uncomfortable laughter]

A marketing lead for a retail technology startup expressed similar sentiments:

You know these days I think almost everyone involved in retail has that feeling [that they're being watched], because in a lot of cases it's true, so... [uncomfortable laughter]

For managers, awareness of surveillance was imagined to temper unwanted employee behaviors, but too much exposure was imagined to potentially lead to backlash and confrontation. One of our informants, a regional manager for an apparel company, whose office was based in a store, and had close working relationships with his store staff, explained his concerns:

Undercover Boss could never happen here. We can monitor video, but it's a double-edged sword. If you use it in a review it can go bad on you pretty fast, a little too Big Brother... Referencing it in conversations can feel micromanaged.

The COO of a retail fashion manufacturer described his staff's reaction to the installation of cameras in the workplace.

People got a little excited that we installed cameras in warehouse. If you're behaving appropriately why worry?

The phrasing used by these managers indicate a preference for keeping employee awareness of surveillance beneath the surface, out of sight of employees and out of discussions with them, to prevent uncomfortable conversations. In effect, the fact that employees were never fully aware of the extent of their subjection to surveillance meant that they couldn't directly address or change the situation. Surveillance persists with a slow-burning tension in relations without becoming openly contentious. Secrecy is a privilege of management that both emerges from and maintains imbalances in power.

Other practices managers described included using methods that didn't connect with video monitoring. Rather than direct observation of bodies, these methods relied on proxies for work done, like an apparel store operations manager tracking the number of units processed (here meaning boxes unpacked) per man hour. Similarly, the CEO of a chain of 'better burger' restaurants described tracking sales per server in his restaurants.

The security lead for a pharmacy chain depicted a team in his headquarters office who use video data from the pharmacy to plan labor workflows and training protocols for pharmacy staff.

They used to go out into the pharmacy with a clipboard and take notes and you can imagine how that corrupts the data, so to speak, cause you know people behave differently, when there's someone standing there with a clipboard. Now they watch video from here, out in the stores, and can kind of make annotations.

On the other end of the spectrum were owners of smaller businesses who kept tabs on their workers using methods that were more persistent and invasive. The general manager of a family-owned commercial equipment repair company described how she tracked repair trucks using GPS, and reviewed open job logs in their ticketing system during the day to assure herself that her repair people were active and productive.

Even more extreme was the owner of a number of pastry franchise locations. He laid out his biography as a series of rational economic decisions. Having assessed his

opportunities while studying for a CPA in Chicago, he relocated to Phoenix (“the fastest growing city in the US at the time”) to start a food business (“it’s easier to scale a food business—everybody needs to eat”), particularly as a franchise with a company “with a good track record.” He described the multiple methods he employed to keep tabs on his stores, to “get a good pulse.” In addition to getting data from his point of sale (POS) system, and occasional “unannounced quality restaurant inspections,” he described his practice of pulling weekly employee audits to see how employees were performing and to make sure that there was no indication of fraud, like “no-sales.”

It’s not always about punishing, it’s also about rewarding... whoever gets the highest sales, most drinks, we give them a gift card. That’s how we spin it to employees. Really, it’s more like, checking everything, making sure there’s nothing fishy going on, people not pulling their weight.

He also described how he leverages the video security systems he installed in each store. He described being able to access these systems from his home office, or even an app on his phone. He described being able to check in on one of his stores is in a mall, near a children’s play area:

I was checking our cloud-based POS and saw that one store was really busy, so I turned on the cameras for the store to find out why. Are we doing something right, or is just busy at the mall? I use that reverse method. I’ll say, “You got through that line really fast, you’re killing it out there.” But really, you should know that I’m using that camera... They know it’s good that I make those calls so they know that I’m always watching but they don’t know when.

This video security system replaced less expensive “nanny cams” that came with built-in microphones and speakers. In describing how he had used that system he shared this story:

These cameras didn’t record, I just had them on the counter pointing at customers, and it allows for audio, had the two-way audio thing going, and from my phone I called “There’s no one at the front, we need somebody here now!” They thought it was a ghost. But I was just messing with them.

The manager also described his greatest challenge in being the difficulty of hiring and retaining staff. It’s tough, he explained, “finding those right people, people you can trust, count on, especially at the manager level.”

These approaches of measuring and monitoring employee exemplify forms of “scientific management” that would be recognizable to the original proponents of Taylorism, who similarly counted (and prescribed using arguably arbitrary calculations) the tonnage of pig iron Hungarian steel workers carried to trains in the course of a working day (Stewart 2006).

The worldview that underlies scientific management is built on a belief that labor, once freely exchanged for capital and in submission to oversight, abandons some aspects of liberty in relation to labor. As Louis Althusser (1971) stated it in Marxist terms, “all the agents of production, exploitation and repression, not to speak of the ‘professionals of ideology’ (Marx), must in one way or another be ‘steeped’ in this ideology in order to perform their tasks ‘conscientiously.’”

In the history of the United States, multiple positions have adopted the language of liberty. Even today, Melissa Cefkin (2014) pointed out that in discourse around emerging

forms of peer and open work, ‘freedom’ from hierarchies in the workplace can also be seen as leading to the “neo-liberal feudalism, the demise of job security.”

In the late 19th and early 20th century “freedom of contract” was used to denote an ideology that governments ought not interfere with companies’ right to make contracts freely with individual workers. In competition with this concept, “freedom of labor” was used to describe “freedom to participate in decision-making through strong unions, freed from management hostility and court injunctions” (Foner 1998).

The head of security for a pharmacy invoked another kind of freedom in justifying employee surveillance, harkening back to the Puritan model of “moral liberty,” here in the form of freedom from “bad choices.”

So we have video pointing at all the cash registers, because we know this is retail, and sometimes people make bad choices sometimes, and they either take money, employees, or they might pass merchandise to a friend of theirs...

This type of freedom, the freedom from making bad choices, has roots in the early history of the US as well. As Foner (1998) explains it, “Puritans were governed by a “moral” liberty, “a liberty to that only which is good,” which was compatible with severe restraints on speech, religion, and personal behavior.”

In each of these examples, it’s clear that competing definitions of liberty are at play in justifying systems of surveillance in the workplace. For many of these managers, the freedom workers have to chart their own course as agents in the labor market (in accepting terms of employment and accepting wages) means abandoning freedom to do as they choose within the confines of the work environment, and thereby submitting themselves to ongoing surveillance by management, on management’s terms.

Backstopping of Surveillance by Police

It’s become natural, living under the implacable gaze of cameras, amidst visible signposting and prominent monitors above store doorways, and among narratives shaped by narratives like *Nineteen Eighty-Four* and the panopticon, to presume that an operator at some remote location may be actively watching our every move. While managers described relatively intensive surveillance of employees, many reported expending much less energy monitoring the behaviors of consumers or the general public, whether to generate business intelligence, or even to prevent theft. Based on manager accounts, that is not typically the case. Most participants reported looking only occasionally at video footage, and then only after the fact, when alerted to a problem. As the vice president of a large coffee chain explained, “We don’t touch that. We’re not looking at LP (loss prevention) from the customer side at all.” While the occasions were rare, managers’ stories did highlight the connection between private and state assemblages of surveillance, through practices that included of handing off video footage to police in support of investigations.

A marketing executive for a bank provided an explained how footage his company captures can end up being used by law enforcement organizations:

I haven’t looked at it in a long time. Except the time we had a robbery. Actually, over time we caught a bunch of them. I’m not gonna say we have ‘em all the time. A few a year. Usually we just

give police snippets, and they make photos that they give to the FBI. The Cross-Dressing Bandit, they name 'em, not sure if that comes from the news media, or the FBI, not quite sure.

The security lead for a pharmacy chain explained that his company's footage is shared with police as well, rarely but according to established protocol:

In the course of a year there are gonna be a half dozen things that can happen, theft, slip and falls, they're gonna have to be able to pull the video, burn it to CD, send it to the police, if the police are out there, if it's a robbery they'll—so they have it there.

The head of maintenance and facilities for a regional transportation agency described his organization's connections to local police as well:

We do supply video to the sheriff's office when there's an incident that requires it... we review incidents that happen on the bus, whether it's a trip and fall or graffiti or any kind of damage to the bus to ferret out who did what.

The owner-operator of a pastry chain provided a recent example:

I had to look at some like a month ago, we had someone who was stealing from us. I had to get police involved, copied some footage for them. It was a shift manager. Deposits in cash were there, but credit cards were not. When they sent the workbook at end of the week, didn't reconcile to POS.

The connections and enunciations between private and state systems of surveillance is not trivial. As Althusser (1971) explained, "the State is explicitly conceived as a repressive apparatus... which enables the ruling classes... to ensure their domination over the working class." The practices connecting private and public systems of surveillance—transmission of data, copying of tapes, phone calls and practices of collaboration—enable the expression of the system's inclination toward furthering enclosure. In Althusser's depiction, the distinction between public and private is a false one on its face, since so-called private institutions in any case serve the interest of the state, and the ruling class. More importantly for this analysis, in the accounts of managers these traversals appear as mundane, taken-for-granted facts in their social worlds that don't require further explanation or justification. They are simply common sense.

Limited Surveillance of the Public, and Abbreviated Ethics

Managers did grapple with the meaning of surveillance of the public. Their responses displayed a wide range of attitudes about the ethics of public surveillance, and situated those attitudes in a kind of balance with other concerns.

Even in sheriff's jails, video wasn't likely to be monitored live.

Yes, we have security cameras for guarding and watching facilities. Mostly for security. Most of the cameras aren't monitored live. It's for going back and reviewing later if there are concerns.

The head of IT security for a marijuana dispensary had no qualms with monitoring the public.

They're in a public place they have no expectation of privacy, nor do my employees. I record audio, I record video. They shouldn't have any expectation of any privacy or any type of anything.

The head of security for a pharmacy chain described a tangle of beliefs. In the first place, he felt the public is given fair warning that they'll be surveilled.

There's lots of signage. When you walk in the front door, there's a public view monitor there if you look up. It should either have a sign on it that says "video recording in progress," or the new ones have an embedded sign on the video itself that pops up that says video recording in progress. Then we have these public view monitors in four locations in every store: one at the front, one at the pharmacy pickup window, one on the drug wall, and one in cosmetics wall and all of them have that same sign. And then we also have a sign at many stores on the front door, for safety and security, video monitoring, alarms, time delay safe.

Though minimal, he did describe some dissatisfaction with customers in being watched, that also hit at the uncertainty some members of the public hold about the potential power of surveillant technology.

In the retail space, everybody knows there are cameras monitoring activity. I have a hard time thinking of any time we had issues with that. The pharmacy space, we have had an occasional customer... that says "Hey that camera can see my prescription!" And we can very, very easily demonstrate to them that it can't read it.

Prompted about extending the capabilities of his deployments to track customer activity for marketing purposes, the same pharmacy manager described concerns about public reaction, *Nineteen Eighty-Four*, and the pharmacy's brand.

A lot of that has been discussed, and obviously there's technology issues there, there's privacy issues there, there is perception issues there. We talk about you know the cell phone data and tracking that data, that person, and even if it is anonymous so to speak remember, we're a healthcare company when you walk back into that pharmacy, HIPAA [US federal privacy] laws apply. So we're very, very sensitive to that. We give thought to those things. One, we're always compliant with HIPAA and then we want to appear to do the right things for our customer, even though it might not have to do with HIPAA, we don't want to give the appearance that we're not doing the right things with our customers data. So that tracking of cell phones and that Big Brother and all that kinds of stuff we really have to think about, ah... um, a lot.

The chief information officer of a sheriff's department invoked the publicity around CCTV deployments in the UK, and Las Vegas, to describe the relative limits of deployments he manages in public space.

It's not like England where we have constant facial recognition. Here there are specific legal requirements, and also civil liberties concerns. Ironically, people fear what government and law enforcement do, but we are the least progressive. In retail and gambling there's a lot more identification going on. You can't walk anywhere in Las Vegas without being recognized.

A bank vice president responsible for marketing described the challenges she faced when rolling out a remodel, and the balance she tried to strike between crime deterrence and branding.

We had to incorporate cameras into branches, so we had to design cameras and branding. Sometimes it was a little off. Like we have the big red wall as part of branding, and sometimes the cameras were in awkward places, uneven, or standing out in a weird spot, but they want their cameras in certain places. It's very important.

I don't know how the customers feel, I guess they're being video'd anyway. I wonder how the employees feel, but cameras capture employees anyway. But showing that data to a wide variety of people? Probably want to limit that. It's somewhat an invasion of privacy, though employed.

Could we repurpose it for customer tracking? I haven't thought of that but it's a good idea. It's a little Big Brother. There are all these privacy requirements.

In these accounts, managers invoked a broad array of ways of justifying the deployment of surveillant systems on the general public, in relational rather than moral terms—relative to 'expectations of privacy' (a narrowly legal definition), relative to surveillant interventions (like Las Vegas) deemed to be more intensive and widespread, relative to its visibility (i.e., the fact that it's literally signposted in public spaces), and in relation to brand expectations. Concerns about civil liberties were construed through the lens of regulatory compliance, which served to domesticate ethics as a form of technical requirement familiar to managers of information technology projects.

These statements also can be seen as underlain by claims about the nature of freedom under regimes of surveillance, in a way that connected with the notion of privacy. We saw that 'privacy' tended to be invoked in alignment with 'civil liberties,' and in opposition to 'Big Brother,' a shorthand for top-down, 'creepy' surveillance. In that sense, privacy could be seen as a stand-in for a commonsense type of freedom—freedom from being made visible to agents of institutions of power. Put simply, privacy is equated with freedom from surveillance.

Reviewing popular discussions of surveillance, key terms like 'control' and 'trust' can also be seen as relating to this definition of freedom, specifically as a desire to choose which agents are able to negate a freedom from visibility to the powerful.

In these conversations, the metaphor of Big Brother was invoked as a kind of line in the sand, a stigma to be avoided. The threshold for crossing into that arena, however, appeared to be set by the imagination managers held about the perception of the surveilled public rather than on the basis of an internal moral distinction. This seemed to be operationalized as an assessment about how a given surveillance intervention would compare to what managers imagined public to find 'expected' or commonplace.

Managers under Surveillance

Managers expressed a range of attitudes about their own perceived exposure to surveillance, demonstrating a mix of stances from insouciance to resignation. While very aware of the limitations of their own systems, they didn't seem comfortable dismissing the possibility that

systems run by others—who were not within their own lines of sight—could be more sophisticated, efficient, or totalizing.

The security lead for a marijuana dispensary demonstrated resigned savvy.

I mean on a personal level, I mean heck you're on camera the minute you drive out your driveway pretty much. Can't get away with much...

The vice president of marketing for a sensor startup shared a similar view.

I can't remember the exact numbers, but they're shocking. It's like the number of times somebody's captured on video was insane, it's like 200 or... [laughter] I was counting them last night driving home. I was at a major intersection and there were, sure enough, 12 cameras on one intersection! Like, "Wow, I can't believe..." Palo Alto's a very secure city I might say.

Asked about his own concern about being surveilled, the chief security officer for a coffee chain explained flatly, "I don't care."

The chief financial officer of an apparel company wasn't sure about his own subjection to surveillance within the company, saying "I don't think I'm being monitored. I'm not aware that it's happening to others, but anything's possible."

As mentioned earlier, the sheriff's chief information officer also referenced privately owned sites of intensive surveillance, saying "You can't walk anywhere in Las Vegas without being recognized."

For one informant, his experience coordinating retail technology conferences tempered his assessment of the state of the art, and represented a divergent view of the capability of systems that weren't under his direct supervision.

Are these systems widely adopted? No, not at all. People are playing so close to the vest in terms of what they release to the public. I think there's a wide gap between what we see and what is actually in the marketplace... The science fiction stuff that we get excited about is not widely adopted yet.

These accounts highlight a picture of surveillance that is more complicated than common top-down models that posit two primary actors—agents of surveillant institutions with power, and the citizen-consumers subject to their gaze. Instead, these narratives show managers entangled within the surveillance of others, connecting the dots and reading into what they imagined was happening behind the scenes, their lines of sight limited in their role as surveilled subjects in the domains of property owners. Managers here applied a similar logic in making sense of their own surveillance to that which they applied over their own organization's employees, and the public. As employees themselves, they understood that they were possibly trading away freedom from surveillance as a contractual term of their employment (though to what extent was unclear), and as members of the public, they had little expectation of privacy for themselves. Though they understand the limits of their own technical systems, they were capable only of imagining the potential of systems beyond their lines of sight.

The Mundanity and Intensity of Surveillance Management

Managers' stories indicated that many of the workplace challenges our participants explained were mundane, representing the familiar everyday challenges of any information technology project manager, from wrangling contracts, to acquiring budgets approvals, managing resources, and meeting deadlines.

The head of security for a marijuana dispensary described a new building project to overcome his biggest challenge—bandwidth—which he had begun planning and budgeting to address through a custom buildout. His language was typical of participants.

Biggest thing holding me back is bandwidth in some of the locations I have... Everything is on Comcast broadband but one site is on microwave. I'm building my own 100-ft tower and building my own wireless network. The ROI will be within a year, even if I spend 50k building all this out.

Bandwidth limitations were echoed by many of the managers we spoke with, including a project manager for a pharmacy, the head of IT for a lumber company described being behind the curve, and the IT director for a fast food chain. The sheriff's CIO also described challenges managing fiber bandwidth and network architecture but also detailed the headaches of complying with IT regulations that enforce civil liberties protection.

Keeping up with technology trends is important. Cloud is complicated because we deal with PII, PHI, restricted law enforcement info, intelligence. You need clearance to look at this information. Dealing with all of these different data with different access structures, is complicated. Custody is complicated. Lots of information is crossing boundaries, including health, intelligence and all these other categories.

And yet the mundanity of IT abuts the responsibility these managers take on for preventing extreme violence on behalf of their organizations. Asked about his top urgent project priority, the chief security officer for a coffee retailer flatly explained:

I'd like to get more predictive about terrorist attacks.

The top priority for the pharmacy's head of security was preventing robbery.

The biggest problem we have on the security side is robberies. Robberies are a stick up... where someone pulls a weapon. We're throwing everything we have at it but we still have a problem we're always looking for anything with technology that will stop those things. Alarms, safes, always looking for ways to do things better because those can be very bad for our employees.

In the sheriff's department, even for the chief information officer, shootings were a top concern.

If I have an employee involved in an incident. I have a deputy who got involved in an off-duty shooting, or it could be part of my managed operation, like a rogue IT person doing something they weren't supposed to do.

Haggerty described the will of surveillant assemblages “to bring systems together, to combine practices and technologies and integrate them into a larger whole” (Haggerty and

Ericson 2000). The fact that physical violence hangs in the balance for managers in their everyday responsibilities looms large in the decision-making that goes into choosing and deploying technological systems of surveillance, and can feed a tendency to move continuously toward more extensive interventions, and more complete enclosure of surveillant systems.

SCHOOL SECURITY: ENHANCING OUR FREEDOM

Many of the themes traced above were evident in depiction of the physical security information management system (PSIM) provided by the school district's head of security at the opening of this paper. He summarized the array of machinic components of the system that had been deployed in that time. These included automated cameras with a view covering areas of the surrounding neighborhood, automated locks on classroom doors, intercom systems, motion detectors in classrooms to confirm rooms are cleared during SWAT team sweeps, "mini command centers" at reception desks, "duress pendants" worn by secretaries, along with buttons installed in their desks, and cell phone tracking systems within buildings. All of these fed into a central command center at the district office with wall-sized banks of monitors enabling security staff to look in on and manage situations they were alerted to "aggressive situations" by people on campus or automated notifications. He also touched on themes of surveillance of the public and employees, ethics, and the mundanity and intensity of managing security and surveillance projects. But while most participants justified surveillance in terms of tradeoffs (for wages, or public safety, for example), he evinced a unique approach to making sense of the program of surveillance he had instituted, justifying it as a freedom-enhancing, positive good.

At the beginning of our conversation, the director gave an overview of his career. He was in his 27th year at the district, having worked there since a four-year stint in the Army as a military police officer. It's notable that in Althusser's terms, his career began as a member of the Repressive State Apparatus (doubly as military officer and police officer), and moved to the most crucial of Ideological State Apparatuses (the school). He described his district in terms of the number of schools in the district, the area covered, number of students, the educational awards the district had won, and the fact that their response times to an active shooter event was estimated to be in the range of "immediate to two minutes."

The Active Shooter Incident

One devastating incident loomed in the background of this conversation, though he alluded to it mostly in passing references. Four years previously, at a high school in his district, a student brought a gun to school, unfortunately using it to murder a classmate. While the systems and procedures he and the district had implemented were credited by an investigatory committee with preventing more extensive violence, they were not able to prevent the tragic event. Further, these systems were deemed to have broken down in important ways. For one, the network was overwhelmed as multiple law enforcement jurisdictions attempted to access the school's cameras. Secondly, the video management system's time stamps proved to be out of sync, so review of footage after the fact was hindered as the events were being investigated.

In large part as a response to that traumatic event, over the last few years, he worked with the school board to raise funds to increase staffing and invest in a new technology infrastructure. Surveillance researchers have argued that this type of security response after the fact of tragedy amounts to a kind of “‘actionism,’ in which surveillance’s advocates consistently argue that doing something—CCTV installations, pat-downs, shoe-scanners—must be better than doing nothing” (Hannah 2010).

The director described the PSIM as “open” in terms of its technical architecture, which allows the use of cameras from any manufacturer, and is easily extensible. In addition, following the guidelines set out by a partnership between two industry lobbying groups, the Security Industry Association (SIA), and the National Systems Contractors Association (NSCA), he began training the entire school community in incident response protocols, bringing together all of his technology assets, along with the school community into a unified technical and human system. In his telling, this system involves the neighborhood, the parent community, teachers, staff and students in a unified mission.

Empowering Teachers

A key theme the security director returned to was the idea that the installed system “empowered” the members of the school community.

The empowerment piece is, for example, I mentioned all those staff members we have working for us, we also have everybody is technically a staff member and every student is potentially a security officer for the school district.

They are also empowered to have their own mini command stations or security interactive, or how do I say, security technology that they use on a daily basis to keep their school safe. So those 175 people, even though they don’t work directly for us, they—we have 175 additional eyes using the technology we have out there.

[In a] lockdown, where anybody can call a lockdown, I mean a staff member or a high school aged student, or middle school, where they see something that is potentially violent or could bring harm to them, they can call that, it’s not just something that can be you know the old traditional way, you’re empowering people to react to things that might be detrimental to them.

He further described the change of attitudes in the district in recent years, with people who may have initially rejected a stronger surveillance system now finding value in the protection it afforded.

When we started in the 1990s, there was a lot of pushback to it, surveillance. “That’s Big Brother,” when we started installing call boxes and visitor management. We don’t get that pushback now because it’s keeping their kids safe... people who were apprehensive about it kinda retired, it’s like a team.

The PSIM in Action

The director provided a few examples of how the system, now fully implemented, operated in concert to react to potential threats to the campus. These examples proved rather

extraordinary. In one instance, a person not associated with the school attempted to gain entry during school hours, which triggered an alert and action by the school staff.

This person tried to get into the school, maybe intoxicated, and he collapsed on street. They got him help, and it turns out he was mentally challenged, and very nervous about starting his first job. He collapsed, they got him help—hey, that’s what the technology and practices are there for, He was not a potential threat, and they got him help.

In another example, the automated systems detected another disturbance after hours, this time in the community surrounding a school, rather than the school itself.

We had domestic violence this past weekend, abusive drinking, this couple had 32-ounce bottle of Coors Light, they were fighting on street. The intercom started recording their argument, and a neighborhood patrol and law enforcement all respond.

The following night, the system detected a false alarm, with an amusing result.

The next night a guy and a girl with paint brushes were picked up on camera. The analytics picks it up, alerts us, we respond, but it turns out they’re not bad guys—they’re people who study spiders! They’re in there in the cracks of wall with brushes, to get spiders to come out. But from the video you can’t tell what they’re up to, it’s bizarre.

His final example occurred the very first weekend they installed automated cameras at a school, resulting in the arrest of thieves posing as construction workers.

The first day we put cameras in place, part of the school was a construction site. The cameras went online, and pick up guys taking roofing materials, welding equipment. The cameras hadn’t been tuned, but they picked up motion. They auto-tracked them, these guys were disguised as constructions workers, and tracked their car out of the lot. They were caught by 6pm, with no analytics, awesome. So my job’s tremendously easier.

These anecdotes demonstrate the director’s understanding of the power of a tightly integrated system of surveillance, linking motion-detecting cameras, monitoring by school staff and security personnel, and connections to local police departments.

Relations with the Community

The PSIM system, as described in the examples above, engages the community in multiple ways, beginning with the security and surveillance provided by the cameras, microphones, and motion detectors that cover neighborhood areas beyond school campuses. Again, the director provided an example.

The security cameras are quite noticeable, a deterrent in themselves. we’re seeing reduced vandalism. In the 1990s we got tagged almost every night, windows broken. It was usually a student or something, but since cameras have gone up that’s been reduced by 95 percent. A neighborhood could be Graffitiville, but not on the school! There’s a perception that cameras see into the neighborhood, so those parts of the neighborhood don’t get hit.

Schools are also of course an important part of the fabric of the community. One dimension of this relationship is economic support. When funding was required order to build out and maintain the PSIM system, the district proposed a US\$5M bond measure which was passed with citizen support. This funding was supplemented by a federal grant secured by the director and his team. The director explained the positive economic feedback loop between school and community.

Property values are tied to safe and high-performance schools, which leads to higher equity for the community. That was an important part of the pitch to raise money.

At the same time, he described efforts to prevent security interventions to present a negative impression of the school or the neighborhood.

Signage is critical, to have it at strategic points, every school ground has it at entrance points, and on the structure of the building there's another sign that says 'Attention video surveillance, trespassers prosecuted.' But it's not like a prison... Administrators are like, "I don't want my school to be turned into a prison."

He also described ways in which community members were entrained in the program of surveillance.

Our surveillance system is also empowering the community. We have neighborhood watches that we call Watch Dads. Our school buses report back when there's any kind of issue, and we're working to build apps to get information about threats or concerns from parents and the community.

At the same time he described ways in which the schools provided resources for the community, to a point.

After hours, 10pm to 4am people are gonna walk dogs. It's important they're not getting too close to the bricks, not throwing things at the window. We're not gonna go harass them, but if somebody's got a can of spray paint we want an alert... We don't have a problem with taking a walk at night, even though it says 10pm

It's an open campus, students can come and go. But walking down street and you need to use bathroom, go into a K-5 school, those days are done.

Descriptions like this, told from the point of view of an administrator of school security, have implications beyond the vantage point of IT project management. Between the lines of his depictions of community and police relations, are resonances of issues like public space, economics, race, and power that call to mind Mike Davis' *City of Quartz* (1990), which described the social history of Los Angeles. In Davis' telling, the "suburbs demand segregation and ghettoization" where "neomilitary syntax of contemporary architecture" keeps "good citizens at home in private spheres of consumption, bad citizens on streets illegitimate," and "sheriffs relentlessly restrict public space, hurt freedom of movement of the young."

In the story of the spider hunters mentioned in the previous section, it's clear that the ideology the director has assembled for himself fails to anticipate the desire, on the part of

members of marginalized communities, for freedom from violence that can accompany encounters with police—agents of the State Apparatus authorized to deploy sanctioned violence. What was an amusing story in this instance could easily have a much less amusing outcome for another group of neighbors.

Manufacturers as Collaborators

In multiple instances, the director expressed an enthusiasm for vendors, integrators, and manufacturers of security components, at one point saying to an interviewer, “keep improving the industry. It’s just fantastic to see. I feel like I’m in Star Trek world.” He continued:

I used to dread manufacturers coming back when I had no budget now. I’m open to it. With all this new technology, feel like a kid in a candy store.

I’m open to integration, always wowed by things, envious. We have an open architecture system, the whole point is I have one VMS [video management system], but I can buy whatever fantastic camera you have, even if I can’t afford your VMS.

He also mentioned the role of industry groups in supporting his efforts.

[The industry group], they provide a tiered continuum that helped us immensely, they helped us to get our funding.

This connection with industry, along with his enthusiasm for industry partnership hints at the practices and relations that support the reproduction of the broader phenomenon of surveillance.

Looking to the Future

Asked about what he saw in store for the future of his district’s school security program, he again expressed enthusiasm.

It’s a Renaissance period. Every day there’s something new, I’m hoping that the industry continues to do that. I’d love to see more user-friendly Android apps, more integration of VMS and visitor management. I’m a huge proponent of video.

He imagined future scenarios enabled by further integration.

But what about... you take a picture for a background check, but what about before they enter the building? We could work with [vendors] and integrate a driver’s license swipe or whatever background check before they enter the building. That’s the final frontier for great access control, to identify the sex offender... that’s my dream, not saying any perverts got in.

He further imagined scenarios in which the PSIM system could provide automated warnings to people identified as potential threats, imagining what amounted to buildings acting autonomously as agents of security.

It could be like, “You in the red jacket!” An automated response. That’s exactly what we’re looking at once the [new] system is online, those kinds of features. “Welcome to the school.” But if you stay too long, a voice comes over and says something, that to me is wonderful.

These depictions suggesting futures imagined for the surveillance system he manages demonstrate not only his plans (in cooperation with members of the security industry), but also the will of the assemblage itself to become both more integrated and totalizing, and more agential.

RESOLVING DISSONANT CONCEPTIONS OF FREEDOM

The pivotal statement in the conversation with school district security director was this surprising and puzzling assertion.

I believe this technology enhances our freedom. That’s just my thought.

In that moment, his characterizations seemed to have gone past the point of euphemism into the territory of ‘doublespeak,’ of *Nineteen Eighty-Four*. In summarizing the effect of the array of technologies that comprised the systems that he’d implemented in the schools—and perhaps slightly more broadly, the array of technologies made available by industry to people in his position to bring, both now and increasingly in the emerging future, new levels of security (and surveillance) to schools—it was difficult to see how increasingly circumscribing civil liberties in public places could be seen to enhance or advance freedom. The most peculiar aspect of the statement, and that which most diverged from that of other managers, was the positive relationship he posed between surveillance (an imposition of power over the surveilled) and freedom (associated with privacy, or the freedom to act without visibility to the powerful). To help make sense of this statement, it is helpful to think of the statement through the lens of ideology—as a commonsense belief, drawn from concepts made available by dominant discourse. Further, the fact that this statement represented a site of ideological contention is supported by its inconsonance with the many other narratives relayed by other participants. His language represented an inversion of the typical rhetoric in this space which tends to construe security and privacy (a kind of freedom) in opposition with each other, or seeks to find some sort of appropriate balance between the two. His statement moved to align the concepts, in an unproblematic relationship of mutual reinforcement.

Tamara Dinev (2005) has pointed to the rise of rhetoric “consolidating security and privacy (“security and privacy”) rather than antagonizing (“security vs. privacy”) these two seemingly polar values.” That rhetoric was deployed in a 2001 speech delivered by President George W. Bush in response to the September 11 attacks, in which he announced the creation of the Department of Homeland Security (followed shortly by the USAPATRIOT Act which dramatically expanded the ability of governments and police to surveil the American public). In that speech, Bush stated, “I will not relent in waging this struggle for freedom *and* security for the American people.” This language joined freedom and security (and implicitly, surveillance), but stopped short of saying one actually enhanced the other. A reasonable interpretation would allow that those values might be pursued with a sensitivity to balancing or managing trade-offs between them.

More recently, there have been some signals emerging in popular discourse that support the director's assemblage of freedom. As one Fox News commentator put it recently, "The civil liberties faction who hate surveillance operate on a lie: that security infringes on freedom. No, security enhances freedom, which insures [sic] our survival." (Gutfeld 2016). A writer in *Security Magazine* (also a security industry executive) provided what might be a clearer interpretation, writing "Basically, 'security' is 'freedom from danger.'" (Mech 2006).

Freedom from death, freedom from danger, freedom from trauma. All of which, put in such terms, seem like worthy, if not the ultimate forms of freedom. As Hong (2017) has pointed out, "The 'right to be let alone' appears a relatively indulgent, bourgeois quibble when placed into such stark conflict with the 'right to be free from death and violence.'" Further, given the director's first-hand experience with, and sense of responsibility for, the trauma that accompanies unpredictable violence, make a great deal of sense that he would draw on and reproduce a narrative strongly bolstering his justification for action.

CONCLUSION

This paper demonstrates an approach to making sense of interview data by focusing on commonsense assertions as expressions of ideology. Understanding these statements as part of a process of cultural reproduction, in which subjects internalize ideology as part of their own identity construction, enables these statements placed in relation to popular discourse, as well as in relation to historical context.

In these discussions of surveillance, freedom emerged as a key concept, and as a site of contestation. In some cases, the concept of freedom was invoked directly by participants; in others, freedom could be seen to underlie other concepts like privacy and trust. Focusing on these contested meanings of the ideology of freedom enabled an analysis of the key themes that arose in our discussions of surveillance and to resolve apparent contradictions. Foner's framing highlights three aspects of any assertion about freedom: evaluation in positive or negative terms ("freedom to" or "freedom from"), characterization of the social conditions that give it definition, and identification of the group of people inscribed in the circle of its entitlement. Seen through this prism, it became possible to think more flexibly about potential variations of meaning, and to investigate sources that can clarify ideological assertions. In this case, one can see the ways in which the security provided by surveillance (through the PSIM system), represented a kind of freedom from arbitrary violence and trauma. Freedom (as perhaps any ideological signpost) indeed can function as 'doublethink' or even 'multi-think,' enabling a subject to internalize conflicting meanings within the same concept and identify the term as their own, as part of a process of developing or maintaining an epistemic identity. Because these meanings continue to thrive in modern discourse, attention to this history helped to resolve ruptures in meaning encountered in these discussions, making visible the particular ideologies managers brought to bear in making sense of their own experiences.

Mobilizing this framework, in addition to providing improved lines of sight into the worlds of our participants, allowed us as researchers to reflect on our own positions within fields of contestation. This reflexivity brought into clearer view the values at stake in a commercial and technological project with distinct ethical and political dimensions. Reframing the interests of disparate stakeholders—including managers, students, the surveilled public, and our team members—using a single set of terms in turn opened the

possibility of enabling those interests to be evaluated, discussed, and balanced or differentially advanced in a more coherent way.

The data analyzed here arguably also demonstrate a bottom-up, phenomenological account making visible the structural process of interpellation described by Louis Althusser. In these cases, interpellation of individuals by competing ideologies within a society could be seen to give rise to dissonance among ‘commonsense’ interpretations of freedom. Recognizing interpellation as a key process in social reproduction, the consequence of the director’s assertions about surveillance technology enhancing freedom can be understood more clearly as well. In his puzzling statement, it could be argued that he both borrowed from dominant discourse and, as a leader in his community and his field, contributed to and reinforced that discourse. Much as the director imagined a future in which surveillant school structures might call out to would-be criminals, the director himself has already been hailed by a particular ideology of freedom. Seeing the director’s statements as both drawing on and reproducing this ideology of freedom-through-surveillance can be seen as signal of an emerging form of justification of not just the sustainment of existing regimes of surveillance, but expansion of the scope of surveillant enclosure.

Recognizing articulations of common sense as statements of ideology—representations of imagined relations to material conditions of reality and assemblages of beliefs and knowledges situated in the identity of subjects—allows those statements to be evaluated in the context of popular discourse, and as sites of historical contention and contestation. In addition to providing practical assistance in resolving ruptures of meaning arising among participants and researchers in qualitative research, this framing additionally allows those statements to be analyzed at a structural level. As examples of the process of interpellation, whereby individuals are made subjects through their recognition of their own identity in ideology, these statements can be read as moments of cultural reproduction, drawing on and reproducing narratives that support existing social phenomena, in this case the phenomenon of surveillance. The ideology expressed in the director’s statements can in particular be seen as a signal of an emerging rhetoric justifying intensification of surveillant practices in the name of a new form of freedom.

While this approach to analysis proved particularly well-suited to making sense of interview data, which consist largely of knowledge claims, Althusser emphasizes that ideology is manifested in practices and acts, not just narratives. This analysis suggests that much more investigation is warranted in making sense of the worlds of those involved in administering surveillant systems, especially as the systems of surveillance continue to grow, align and connect, extending the lines of sight of the apparatuses power.

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Papers 3 – Vantage Points

The Mixed-Up Files of a 21st Century Librarian: Changing Demographics, Conceptions of Democracy, and The Public Library

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With the rise of the internet, the role of the public library as a distributor of education, skills, and cultural capital has come under question while continuing to grow increasingly vital. This paper examines how libraries are dealing with changing technology while negotiating their relationship with their diverse patron populations. Using the concept of chronotope, a specific space and time that gives rise to a particular understanding of a person's character or an idea, this paper explores conceptions of patrons through systematic assumptions about patrons' background and needs. Through the library's continued inclusion of technology in its services, it seeks to reach out to more patrons and support existing ones. This paper makes clear the connections between the current state of the library, its diverse audience of patrons, and the need for new ways of measuring library usage to generate a more nuanced understanding of patrons.

Keywords: Chronotope, Public Libraries, Technology, Third Space, Generational Differences

INTRODUCTION

Today, city financial woes combine with concerns about poverty and crime to position the library as a possible way for the government or other area residents to attempt to help, though education, those hit hardest by poverty. These ideas of government action, amongst many others, are then enacted by librarians and through library programs and services. Much of this paper examines how the library and librarians within it deal with changing identities due to social and technological change as well as how the ghosts of chronotopes of past libraries are still influencing how governments and sectors of the population view the scope of library services.

The internet make many forms of information available to people that previously only existed in books as well as offering a new world of social media and technical skills. These skills and social expectations of knowledge are only accessible to those with internet access, becoming markers of cultural capital, a form of social standing. Younger generations are growing up in a society where an online presence is often socially necessary and where the ability to navigate social media and complex technological programs are necessary for a variety of job opportunities. Due the the appeal of technology to younger people, many institutions and businesses seek to incorporate technology in their company or institutional image to attract generations that might otherwise associate the company or institution with older generations. In Chicago, the public library system is trying to broaden its appeal to younger audiences while also confronting the growing technological gap between lower income and higher income residents. To make the best of limited budgets, the library needs to reevaluate how its patrons use the library resources and space, as well as developing better metrics for understanding the variety of ways librarians serve patron needs that are not currently taken into account when measuring the productivity of libraries. Changing how the library measures usage and librarian activity will yield more accurate data of the complex and

changing role the library, as a social and informational institution, is and must continue to change to meet changing societal needs.

METHODS AND THEORY

My research consisted of a number of observation sessions in various parts of the Park Library and interviews with the three main librarians who worked there. I also conducted an extensive survey of the paper materials librarians hung in various sections of the library, which advertised not only library events, but also information on the local area and other governmental resources. Examining the material artifacts of the library helped me understand the ways that the librarians conceived of their patrons, evidenced in how they planned and organized library spaces and events. I was thus able to construct a partial picture of the relationship the librarians had with their patrons, which I then compared to my observations of how people actually used the library, which often conflicted with how some of the librarians conceived of a librarian's place within a community. I did not interview patrons and other library employees because the librarians were concerned about my work interfering with the patrons' own activities as well as the limited schedules of the librarians.

I view the library as a civic institution that is subject to the identity of its employees and patrons, as well as changes in the informational landscape. The library is subject to both local and national discourse making its specific region of Chicago and even particular neighborhood locations highly relevant to policy changes. Librarians frequently made reference to how things were in the past and how they must operate in current times, making a review of temporal assumptions about library activities essential to understanding their commentary and relationship with the city government and the main library branch. Since time and space play such a large role in understanding the identity of not only the librarians but also the changing demographics of Chicago neighborhoods, I found the framework of Bakhtin's chronotope (Bakhtin 1988) extremely helpful. Since the idea focuses specifically on the way that time and space influence identity and reconciles the present with the past, it provides a language to discuss how assumptions about how the library functioned in the past are influencing how libraries and librarians deal with current issues.

LIBRARY DYNAMICS

The Park library, as the first purpose built neighborhood library, showcases both historical ideas of what a library should be and the changes that neighborhood branches have made to appeal to modern patrons. The building itself consists of a large reading room with long wooden reading tables, a nod to the reading rooms popular at the time it was built; however, it now houses almost a dozen computers to meet patron internet needs. The majority of the patrons I observed in the library were older, over the age of 50 or 60, people of color and they tended to congregate in the large reading rooms checking email on library computers, reading newspapers, flipping through magazines, or becoming deeply involved in their own research projects that required a number of books and yellow notepads. A smaller reading room was also rarely empty as the two small tables were frequently populated by patrons working on their own computers or using library books. Since this was the room all of the teen materials were stored in, it was also where a few teens came to study for various college

entrance exams, but teens were largely absent from the library for reasons to be discussed later. Adults in these areas often spent anywhere from 20 minutes to a few hours, often without checking out materials but nonetheless using library services via the free library wi-fi, an internet session on a library computer, or paging through books or magazines. Most of the patrons who spent significant periods of time in the library were older and/or people of color whereas the second major user group I observed, younger white families with children, often bolted for the children's section, chose a few materials, checked them out, and left without spending much beyond 15 minutes in the building. White adults, whether with or without children, did not spend a lot of time in the library for themselves, either focusing on materials for their children or picking up their own holds. I was often the only white person under the age of 50 using the library wi-fi or working at one of the tables.

The children's section is the most highly controlled space in that no one over the age of 14 is allowed in without a child under the age of 14 in order to make sure that the resources there can focus on children. The only group of kids that spent significant time in the children's section, during my periods of observation, were children of color ranging from 6 to their early teens who met with their tutors on a quiet Saturday afternoon. According to the children's librarian, there was also a large daily influx of children after the school day the block let out for the day as kids waited for their parents. The librarians' offices were mainly located in the main circulation area across from the circulation desk and in the children's area, but given that there were only three main librarians, they were rarely in their offices.

The Park Library offers a chance to see how an organization like the Chicago Public Library adapts to different regional and generational integrations of technology. The neighborhoods in Chicago cannot uptake technological innovations in a universal way due to socio-economical stratification throughout the city. At the same time, younger generations are growing up surrounded by internet culture, regardless of their ability to access the internet from their homes. The technology the library offers is not just a framework for understanding the multiple ways various socio-economic classes are taking up technology, but also how these differences are reproduced in new forms in new generations. Chronotope gives a frame for discussing these multi-level and multi-dimensional time-spaces relative to each other as "space" is defined not only in terms of geographical location, but also social spheres and available government resources. "Time" can then be defined in terms of generational differences, technological development, and types of technology interactions or uptake by residents of the area and users of the library.

Librarians

The role of the librarian is highly relevant to the discussion of the changing informational interface since librarians are the interactional face of the library system for patrons. Despite the passage of time, librarians are often still imagined as authoritarian figures who yielded or denied material access to patrons or enforced strict institutional policies on silence (Wiegand 2015, 120) or as the happy, almost always female, educator (Leigh 1950, 25). In the 1940s and 50s, The American Library Association asked The Social Science Research Council to conduct an extensive examination of how libraries were used and what roles librarians had within them. Three assumed functions of librarians were listed: Maintain the physical collection to promote citizenship and enhance personal lives, be a source of accurate

information, and offer opportunities for continuous education (Bryan 1952, 5). In the 1980s, Abbot, in his survey of a variety of professions, included giving access to entertainment (Abbott 1988, 217). While this last one was not stressed in the more recent handbooks for librarians (Prentice 2011, de la Peña McCook 2011), the majority of the collection at the neighborhood branch I observed was fiction and included movies, music, and fishing poles. While fishing poles may seem a little odd, they are actually part of a movement of libraries across the country finding new ways to reach out to patrons. Other libraries loan out board games, devices to check electrical connections in power outlets, and various other non-book materials that patrons may want or need. The main branch in Chicago also offers board games and puzzles to play or complete while in the library. This suggests that technology and a widening idea of what resources can be made available to patrons is not fundamentally changing the idea of a library as a space where all are welcome. These past evaluative frameworks suggest that, despite a significant passage of time, the essential idea of the purpose of libraries, and thus their staff and some elements of the institutional character, perseveres.

The Patrons

To begin unpacking the chronotopes involved in the public library, it helps to break down the categories the Chicago Public Library system currently uses and the implicit expectations of users in each group. The public library formally divides its patrons into three major age categories, and allocates resources and imagines identities accordingly: Adults, which the library generally defines as those over 18, Children, who are under 14, and Teens, who are 14-18. The creation of a teen-specific subset of patronage is a relatively recent development in Chicago and throughout public library discourse. In consequence, funding and human resources originally allocated to the broad category of children aged 0-18 was divided between the two departments. Children are supposed to learn academic skills like reading and socializing, following the skills-focused pattern of technology classes that one of the librarians sought to implement. Teens, in this particular branch, are largely left out of branch-programming. Adults are often discussed in terms of seeking further education for themselves through online and in-library resources like librarian-lead classes or through books and library computers.

Adults – Adults showed the highest diversity in ways of using the library space and technology within the library. They are the clearest example of the ways that different people inhabit different technological presents. Presents in this sense acknowledging that there are multiple ways of living with current technology: some brought their own laptops, smart phones, or music players while others used library computers. The primary space for adults to spend significant periods of time was a reading room which visually evoked the reading rooms of years past and seemed to maintain similar standards of behavior. In photos of the original organization of the branch, this room had long tables that stretched the length of the room and dominated the space (City of Chicago 2010). Over 110 years later, long tables still dominate the space; only shelves and a dozen computers have been added along the walls and parallel to the tables. This room also offered a prime viewing opportunity of the ways different groups use the library space; use patterns which, in my observations, seemed to follow racial and age lines.

Across from me in one fairly typical observation session was a black man, probably in his late 40s to early 50s, wearing two small gold rings, one on each ring finger, a NY sports-team sweatshirt whose logo I could not make out, and glasses. He had a laptop in front of him with a wireless mouse, a yellow pad of steno paper, a laminated sheet of paper, and white earbud headphones. He sat down at the table not long after me, opened his computer and never got up for the two hours I was there. Down the table from him was an older Asian man, maybe in his sixties, with thinning black hair. He was also there for quite a while, at least an hour and half, quietly reading a book or newspaper of some sort which, from my chosen seat, was obscured behind the other man's laptop.

Facing the walls was a set of library computers where people circulated more frequently. Patrons could access the library computers by using their library card to login to the terminal for up to two one hour sessions a day. People came, logged on, and spent anywhere from 20 minutes to two hours doing various things. There was a young black woman, probably in her late twenties, who sat down at one of the computers half an hour after I arrived, leaning against her purse. One computer over from her sat an older Asian woman wearing a brown sweatshirt. The one time she looked up, it appeared she was reading a webpage with Chinese or Japanese characters on it. People were not just using the computers or tables as a workspace, but also as a space to relax, watch a few YouTube videos, read magazines, or stay abreast of current events via the newspaper collection. This was expounded upon in my interviews with the two librarians responsible for the adult area, with one librarian explicitly pointing to a stated library goal of becoming a third space, a space between home and work. This allowed the library to expand their services beyond just providing informational resources, as a social space and a place for people to go and spend their free time pursuing entertainment or resources like the internet.

This use of the library shows how the library must contend with diversity in social space and circles divided along lines of age (an element of time) and race (social space), with more people of color and people over the age of 60 spending significantly more time in the library space. I was one of only two or three white people who sat in the room working, the other white patrons mainly standing in line to check out materials at the circulation desk. The white patrons tended to be younger, in their late twenties to early thirties, and did not seem to stay very long at the library. This pattern of usage turned out to be quite common throughout my time there and I quickly found myself thinking of this space as primarily an adult area. The behavior of the patrons suggested that there were different chronotopes of library usage in play within one physical space, each bound by age, race, and socio-economic class. The older patrons, patrons of lower socio-economic status, and a higher number of patrons of color depended on library services to access current technology in the forms of basic internet access. Younger patrons, patrons of higher socio-economic status, and a higher number of white patrons used library technology like the website to turn the physical space into primarily a material retrieval space.

Adult usage of the Chicago Public Library system reflects a growth in diversity of library services in recent decades as some adults use the library primarily as a borrowing service, others as a third space, a place to be social or pursue their own interests, and still others as a place to access various types of government aid or information. Each of these usages depend on the current technological presents, those of the variety of patrons in the area see well as the library itself. These presents are in a dialectical relationship with patrons, with limited technological access potentially limited people's socio-economic status. This

also influences how people in different socio-economic spaces interact with the physical and online space of the library. These categories of usage each represent a distinct chronotope, a space time that a patron or group of patrons inhabit that describes their technological needs and desires. However, these chronotopes also depend on the relative age of the patron, adding an additional temporal dimension to consider. The majority of the adults I observed in the library were using the library as a “third space” (Chicago Public Library 2017) which the library explicitly states on their website as being a place “where people come to improve their lives, nourish their intellect or savor entertainment” (Chicago Public Library 2017). Unlike children, where many of the programs are explicitly educational, and many of the people I observed in the Children’s area used the space for this purpose, adults can seek more than just library materials. Here the library is a conduit to broader community interests and resources. The librarians, in the name of creating this third space, post flyers and display handouts with information about the locations of job-retraining services, the locations of the nearest food banks, phone numbers for legal advice for seniors, and veteran’s services. The librarians do not make these posters but rather the posters are sent to them from the main library office if they are governmental in nature or brought in by local non-profits and posted at the discretion of the head librarian.

For example, against a back drop of library computers and the adult audio-visual collection, two rotating cork boards were covered in posters addressing low-income adults looking for opportunities for self-improvement. Most of the board was plastered with neatly arranged social service themed posters advertising food pantries, legal advice for seniors, career training, veteran services, applying for federal aid for college, and a poster advertising tax preparers with tear-away phone numbers. The posters themselves offered a limited color pallet and stereotypical clipart or photo images of smiling people, or mournful images of a flag for the veteran’s affairs one. The paper handouts and posters are the library’s main way of informing their patrons of area services. There is no comparable area on the library website. This means that the city and area services who use the posters to inform area residents, assume that residents in need of these services go to the library in person and do not rely solely on e-books or the library’s online presence. The library, as a system, is thus making assumptions about who has internet access, assumed to be younger and wealthier residents, and who is spending more time in the brick and mortar branches, those of socio-economic status and/or people in need of governmental assistance. The forms of assistance advertised varied between a few library branches in terms of what types of handouts were available, with the Park library focused on food pantries and employment services and the major branch downtown offering classes on passing immigration exams, as well as resources for questions on recent changes in immigration policy. While my observations to some extent support these assumptions, the assumptions still simplify the reality of the complexity of technology access and economic status. For instance, there was a man who brought his own laptop to the library but who could be found on a street corner with a cardboard sign asking for money when the library was closed for the day. The concept of chronotopes helps understand the apparent oddity of this patron by offering a multi-dimensional way of understanding the social and physical spaces this patron inhabits as well as the technological present and economic times he faces.

Technology in the adult section highlighted the diversity of technological and economic space-times that patrons inhabited. The librarians were aware, to some extent, of the diversity of the technological landscapes their patrons inhabited and the librarians tried

to support this diversity by offering a few different types of computer classes. Suzanne, the Adult librarian, talked at great length about a series of upcoming programs she was organizing to create social learning circles, where people could socialize and achieve self-development by completing a free online course together. While that class assumed a higher technological fluency, another class she offered showed the wide-range of technological realities patrons faced. In a previous month, Suzanne offered a class on creating websites which filled up quickly due to a shortage of library computers and the number of individuals interested who did not have a personal computer. Based on enrollment numbers, Suzanne's classes were successful in that the topics generated a lot of interest and filled up quite quickly. Keeping track of just how fast various classes fill up and how many more people may want to take such classes would be a possible way of gauging how community needs are changing as well as suggesting ways to continue to improve patron services. The target audience of many of these library programs are those adults who do not currently have desirable skill sets and could not possibly afford classes or the technology to develop such skills without the aid of the library. Such patrons were continually called upon by the librarians to justify the continuing need for libraries in the future. In a city like Chicago and especially on the South Side, there is no apparent shortage of such possible patrons.

As a city, and even within the neighborhood of the library, the wide range of socio-economic standings of patrons and the ensuing range of types and levels of technological access possible underscores the challenge of program and material development for the Chicago Public Library. Technology usage within the library highlights preexisting socio-economic inequalities within the larger society but also points to the technology divide between those of higher and lower socio-economic status and how continued technology development can further the divide. Recent library funding cutbacks from the government limit the types of books an individual branch can buy but makes resources available online, showing how tough economic times makes serving the diverse space-times of patrons difficult if not impossible. This makes measuring how the library is used differently in the neighborhoods all the more important for understanding how to develop better library budgets that meet the needs of area residents while also dealing with financial short-falls. The holes in understanding how patrons interact with library and what they are looking for make trying to understand how library systems are made up of diverse patron needs and community patterns challenging in the best economic times. In an era with heavy budget cuts, such information could lead to better decisions about ways to adjust budgets in ways least likely to affect patrons and their librarians.

Children – Technology does not divide all social groups in the same visible way. Technology use in relation to children in the library was more rare but there was a similar level of concern about self-improvement through library resources. Children, as the Chicago Public Library defines them, are those who are under 14, and are the population whose presence in the library is the most often talked about and worried over. Librarians are charged with guiding young minds to resources that are appropriate for their developmental age, but also with recognizing the possible dangers of some materials or situations children might face in the library. While my neighborhood branch did not discuss what materials it deemed unsuitable, one of the librarians did share the branch's rules for who was allowed in the children's section. The stated policy, which was also posted in the library by the main librarian's office, which was a significant distance from the children's room, was that only

children under 14 and their accompanying adults were allowed. This rule did not seem to be enforced, however, as it was quite easy for me to peruse books or work at tables in the space. However, as the noisiest space in the library, there were not many people who seemed to want to spend time there without being associated with a child. Despite the presence of computers in the Children's area, there was no explicit mention of helping children develop technology skills, instead the focus was on measurable forms of institutional education, like completion of school assignments.

The educational aims of the librarians are seen in the physical design of the room which advocated educational play and in its ability to provide a space to seek additional resources for completing school work. The section featured 5 wooden round tables with 4 chairs each, spread around one corner of the room. There was a long row of 8 computers in the center of the room, also on short wooden tables, as well as two more computers at the far end of the room, closer to the door connecting the room to the rest of the library. Like the other sections of the library, there are high ceilings and tall windows that let in a lot of natural light but, compared with the adult section, there was less artwork on the walls. There was only one piece of artwork, an image of a small black girl sitting under a tree, looking at a large orange/yellow moon and some flowers. The main form of decoration in this section came in the form of a collection of educational posters taped to the sides of the shelves, outlining the names of planets, how fractions worked, and different musical time signatures.

Although white families appeared to spend time in this room beyond that required to acquire their desired material resources, in contrast with the social patterns observed elsewhere in the library, the area nevertheless continued to reinforce racial patterns where white patrons still spent significantly less time there than patrons of color. Frequently on weekends there was a flurry of tutors meeting their students in the library. Since not all the tutors used library materials, they demonstrate another way of using the library as a third-space.

In a clear age-difference within the library, the library provided toys and puzzles in the Children's area, where in the adult area patrons could use books, magazines or a computer as primary sources of entertainment. The toys, like the fishing poles in the adult area, show a way that the library is trying to adapt to the variety of possible patron uses for the library. The toys, in addition to providing social interaction between children, also facilitated the adults' ability to examine library materials and paper materials in greater detail. The pamphlets offered information deemed of interest to the caretakers of children, including changes in the public school curriculum, the Teacher in the Library program, a game day, variously aged fiction book clubs for school-aged children, and a trifold explaining the benefits of reading as preparation for attending school. By including toys and information about the school system, the library is creating a third-space for children and parents while also recognizing the space of the local school system and a time marked by recent curriculum changes. In this case, time is defined less in terms of technology uptake by patrons and more about the level of scholastic achievement necessary for children to be considered successful. Computers in the area were infrequently used but multiple librarians mentioned them in terms of facilitating children's ability to complete school assignments. While there were only a four computers in the children's area compared to the dozen or so in the adult area, the rate of usage seemed to be much lower despite the demand the librarians perceived. However, the computers in the children's section were also subject to more strict waves of usage, since kids were in school for more of the time the library was

open in a given week. The question of access to computers for homework was not at nearly the same level of concern for the librarians as their concern about adult access. While they gave no explicit reason for this difference, it may be that schools have a significant number of computers that children can access if the technology is needed for homework. Weighing computer usage as a function of both the target age group and the amount of time patrons in that age group use computer as opposed to other activities in the library would yield a better picture of how generations have similar or different needs within the library. Such a measurement would allow for better budget planning in the future and a more dynamic understanding of the diversity of patron needs. The chronotopes of child patrons are defined by play spaces, their developmental ages, and the technical skills like reading and math required for academic achievements rather than the employment objectives and technical fluency and access of adults.

While technology is not an explicit focus for younger children in terms of library programming, developing social skills necessary for success in school were the foci of library programs and informational pamphlets. The children's librarian described the importance of early literacy programs as not just because they expose children to reading materials but also because they are group gatherings that let children learn how to play with each other and allow parents and guardians to socialized with one another. Here the role of the library was not focused on those of lower social economic standing to quite the same degree as in the adult section, because in order to participate in the early literacy programs children need a parent or guardian who can take them to the library in the middle of the standard workday. However the programs for school-age children assume that more children have guardians who work long hours or who are otherwise unable to help with homework assignments. The after-school homework help and the educational focus of many library programs offered a chance for children to get learning support beyond school and home. The librarians stressed that many children use the library as a place to wait for their parents or guardians after school and the homework help aids kids whose parents or guardians might be busy at work or do not have the knowledge necessary to assist kids with homework.

There are two major chronotopes of possible child patron-library interactions, those of younger children who have more temporal access to their guardians during the day, and those of school-age children who need the library to provide extra support in place of guardians. Technology, while not at the forefront, is still a key element of defining how children can interact with the library because children depend on parents and guardians to bring them. A child is thus socialized to use the library based on how their parents use the library. If their parents use the library as a space to meet tutors or access computers, then the child is more likely to see the library as a third-space. If a child's parents rely more on the library website to order books and make only short trips to pick up books on hold or do a quick selection of picture books they are less like to see the library as a social/work/third space. Technology does not act in a primary distinction for how children use the library but rather as a secondary force through what children observe their parents doing and thus how they are socialized to think of the library as they continue to grow.

Teenagers – Teens in the library, unlike children, are assumed to be interested in technology, but this group suffers from more funding difficulties than children and adults in the library. The teen space of the library shares a small room with the new Adult books, the large-print collection, and audio books. The distinctly 'teen' aspect of the space was in targeted

messaging about tech programming. On top of the waist-high bookshelves there was a set of postcards/bookmarks in a small plastic display stand, behind some books, that advertised the library's technological services through a program that is offered at multiple branches of the library, but not this one in particular. The program offers teens, and only teens, access to many cutting-edge computer programs and classes relating to media creation and editing. In the main branch downtown, the library has sound mixing boards, video and photo editing software, and classes on how to use them. This YouMedia project is heralded as an icon of teenage productivity and ingenuity in mayoral statements and by the Chicago Public Library Foundation.

Faced with substantial budget cuts, the library system is increasingly dependent on the fundraising efforts of the Chicago Public Library Fund, run by a number of local high-ranking company executives, and the Foundation. With the blessing of the mayor, the focus is technological development around teenagers, with specific aims to keep teenagers using technology in socially approved formats. The YouMedia program offers those between 13 and 18 a chance to use high quality audio-visual media editing software often with the aim of teens learning skills to make them employable in growing industries. This program is also part of a larger national discussion within libraries about how to make the libraries relevant to 21st century teens in a variety of class and cultural identities (ALA 2011, 2012, 2013, 2014, 2015, 2016). However, this program ignores the needs of older adults struggling to learn new skills to stay in the job-market and types of technology use outside of employment or academic needs. The program itself does give teens access to classes in employable skills while assuming a higher level of technical competency but is less available than adult technology classes. Whereas most public libraries have computers and varied classes for adults, depending on what the librarians at that particular branch decide to offer, YouMedia is only offered in a few branches, making teen access to technology classes more difficult. To date, only 12 of the 70 libraries in the system have a YouMedia program, leaving much open space for Teen program development. The library system foregrounds technology as a way to appeal to teenagers who are more online and thus may not need to visit the physical library as much. This contrasts with how the library presents adult programming, which assumes the presence of adults as well as a lack of technological capability.

Part of the technology approach to reaching out to younger patrons was a covert acknowledgement of some existing suspicions about young people on devices in public spaces and some continuing library concerns about teens in the library space. The branch manager told me the same story, more than once, about a group of kids sitting around a table texting on their phones without really acknowledging each other or using any of the library resources. Her concern seemed to center on how teens were not making appropriate use of the library, evident as she voiced concern about teens being unoccupied. However, she never complained about the number of adults using their phones or their own electronics in the library, suggesting that while the library supported technology use and the use of the library as a third-space, there was still some concern that the younger generation was not using the library in an appropriate way.

Technology in the teen area highlights not only how teens are perceived differently from adults and children, but also how the library is still undergoing a continuous process of integration and development with technology. Teens live in a different social space than children in that teens are more independent from their parents and their technology usage might be more unmediated, but they are also different from adults in that they have grown

up in the world of social media. Even if one does not have social media accounts, one still lives in a social culture dominated by social media influence. Because of this assumed technological fluency in teens, libraries are seeking to adopt highly technical classes or devices to appeal to this social group that grew up in a very different technological present than their parents. Librarians are still running into the economic challenges technology poses due to the high cost of gaining access to program or devices, and because this is a main part of their outreach to teens, budget limitations are more keenly obvious in this area.

Another key difference between how the library views adult and teen technology usage is that the adult computer classes are led by librarians and are managed by librarians within the individual branches with no additional budget, while YouMedia is a city-wide program and has a completely different funding source, the Chicago Public Library Foundation. YouMedia is a more expensive set of classes to run, not only because the classes tend to require higher quality technology, but also because the people teaching the classes may not be librarians and may require more physical supplements. One librarian described having to find outreach programs with new budgets while another said that it was basically impossible to get a YouMedia program at the Park branch because there was not enough space in the library building for the teen-only area and technology storage required by the program. The challenge of the Chicago library system's technology programs is not just that adults are expected to be less technologically capable and/or have less access than teenagers, but also that the teen program calls for a specific physical space while the adult classes are open to all over 18 and occur in pre-existing open library spaces.

The social distinctions between children, teens, and adults exist outside of the question of technology in libraries, but the compact physical and social space of the library point to more specific and detailed ways that chronotopes bound by age and technology usage socially and economically divide people. Teens, as a middle ground in the age categories and a marker for new levels and styles of technology integration into society, offer perspective on how these various elements interact within the library as the library continues to develop and move forward with technology.

TECHNOLOGY: A CHANGE AND A CONTINUATION

In order for the Chicago Public Library to adapt to recent technological and demographic changes while simultaneously maintaining its objectives, libraries need to take better stock of how their librarians currently spend their time and how patrons currently interact with the library. Because the public library is open to any area resident to spend time in, and is controlled and partially financed by the city, state, and national government, the library serves as a way for the government to interact with a potentially wide sector of the population on an intimate level. In this capacity, the library offers a network of support for area residents who need additional educational, career development, or other services but cannot afford them through other institutions. Recent technological developments have made more services available through online interfaces, offering a way to cut budgets by eliminating physical resources in times of economic insecurity. However, the apparent boon of technology has a hidden cost to library users. Moving library services online and not offering physical equivalents assumes that all library patrons have access to internet devices when the reality is that many of the library's frequent users in cities like Chicago are low-income and depend on the library for computer access. Changing regional demographics and

library policies offer a chance to view the shortfalls of governmental and institutional assumptions about patron behavior as well as the challenges of actually supporting those who are economically disadvantaged.

To move forward the library needs to, once again, change its stated goals and systems of measurement to highlight how, despite the internet, people still need the library and its services. The library started out as an institution to support the idea of liberal education but has moved back and forth along a continuum of focusing on education and focusing on serving as a third space, a space between home and work. Current library procedures design programs and spaces around simplified ideas of patrons' needs and desires and current measurement practices do not sufficiently allow for recognizing the variety of patron needs the library is called on to serve. Many outside of the library take its existence for granted when in reality many libraries across the country are shutting due to a lack of funds. Through a brief examination of the history of public libraries in the US and then an analysis of a neighborhood library in Chicago I sought to understand how some librarians view patrons and recent changes in library policy. In particular, I was curious to understand how librarians and libraries were dealing with changing patron basis and patron needs and desires in the era of the internet and rapidly changing technology. Recalibrating how the library measures its role in different neighborhoods offers a chance for librarians to better understand the effect of time, like generational difference in technology usage, and space, such as social space and socio-economic status, on their patrons. By understanding the space time (chronotopes) of their patrons better, libraries can better their services and justify library funding to city officials facing difficult budget cuts.

Technology is not just about the continued existence of a public institution like the library, it is also about changing conceptions of education and what skills are deemed socially valuable, like the ability to use social media, or skills that translate into better-paying job opportunities, like coding or video editing. In this way, the Chicago Public Library's technology efforts are just a new strategy for supporting local residents' educational and informational success. A 1970s study financed by the US Office of Education to aid in the government's efforts "in defining its relationship to the public library" (Wellisch et al. 1974, xiii) argued government support of the US library project offered the chance to "exploit the potential of the public library for providing information and educational success" (Wellisch et al. 1974, 256). While Benjamin Franklin might not have imagined a self-selecting elite chosen through technology access, the idea of class and education playing a large role in the political process follows his assertion that an elite would emerge in a democratic society. The technology programs offered by the library recognized a wide diversity of level of technology access while the move to offering some materials at fewer branches and online assumes that all patrons in the city have equal access to the internet or technology devices. The reality of levels of access is supported by librarians like Suzanne who suggest that many of the library users in this particular branch do not have computer access at home. Technology access and skills are a new form of cultural capital, skills that can mean the difference between pay grades in various sectors of employment and wider social standing. In offering programs to help patrons learn how to use technology, the library is trying to offer patrons a chance to improve their social standing through education that a patron may not have been able to afford otherwise

Limits on the cultural capital and leisure time of individuals restrict their ability to participate in politics because they do not have the resources to learn the official language of

power, namely how to navigate the upper echelons of society (Bourdieu 1991, 172). Cultural capital is a social resource that is not equally distributed throughout society but it provides social standing for those who have it. Librarians then do not just maintain a physical collection, but rather act as delivery people for cultural capital. The library serves many sub-groups, each of which has its own exact criteria for cultural capital, but the main concern librarians must contend with is whether or not materials are “appropriate” for various other sub-groups of the library, historically women, now mostly just children. This makes the control of what the library collection contains an often political challenge as librarians and community members seek to create the collection in their respective imaginaries of what materials are the most representative of the conception of the library as an educative, and third space.

The boundaries of these different sub-groups can be understood in terms of the chronotopic dimensions of space and time that affect the patrons, the library branches, the librarians, and society at large. The social space, online and physical space of the library, the geographical location of a person or a library branch within the city, and the socio-economic space provide a patron’s background and influence what a patron needs or wants from a library, if anything. The age of the patron gives clues as to how a patron may be socialized to think about a library with regards to how much a particular age group and social class is expected to depend on technology for cultural capital and hireable skills. Technology keeps moving forward but libraries and patrons alike uptake technology differently and live in different technological realities. As there is no universal answer to how humans use technology, there is no universal answer to what libraries of the future should look like and how they should function. Thus, understanding the time-space of patrons and their branches is essential to providing the best possible services and third-space options possible.

IMPLICATIONS

The Chicago Public Library exists within a specific time-space determined by current technological developments, the principals and authors of system-wide messaging, and the current understanding of liberal democracy and access to information. Technology is part of an ongoing library effort to re-imagine what a public third space, something between home and work, looks like and how it functions in a city where economic disparities and wide cultural differences offer a variety of perspectives on library usage. Key to this development process is understanding the diversity of factors affecting how people are actually using the library. Instead of just finding new ways of measuring library productivity, the library also needs to find ways to qualify the differences in patron usages of the library. Based on the limitations of this study, I cannot suggest specific programs to enact but rather ways that the library could change its internal measurement system to better depict the needs of its community members. Reevaluating the imagined patron types, the chronotopes, involved would facilitate a more accurate institutional understanding of the current and possible future roles for the library in the various neighborhoods in Chicago and allow the library to more effectively reach their target audiences.

Currently the library primarily measures its productivity based on the number of internet sessions, books circulated, and visitors to the library’s physical locations, which ignores the differences between users who spend significant periods of time in the library as a third-space and those who attend programs, but counts those who checkout e-books or

use online library services separately. It also leaves what librarians do during their shifts more opaque than necessary. It is clear that the librarians are busy, especially at branches like this one where there are only three main librarians to cover all of the library's open hours, but the time break down of what they do, how long it can take to answer more complicated questions, how many questions they deal with, event set-up and the like are not clearly measured. In the time I spent there, there was almost an un-ending stream of patron questions, even on days the librarians claimed were "quiet times." It was also hard to find some of the librarians when I arrived for the interviews as they were almost never at their desks but instead bustling around the building completing various tasks like breaking down boxes, letting in elevator maintenance people and the like. However, these various duties are not immediately visible to policy makers, making it easier to cut their positions or ignore the challenges they face when they are short staffed. To these ends, I suggest that a tally sheet be made with very broad categories such as "location" for people looking for restrooms, computers, and other general features of the library, "reference" for questions about books and materials, "services/programs" for those asking about specific programs at a branch or in the wider area, and "area questions" for those looking for information about the general neighborhood or city. This list is by no means exhaustive, but a list of 4-5 categories where librarians simply have to make a tick mark next to each type of question they answer on their shift would be a cheap and fast way to understand the types of reference questions librarians are getting asked nowadays.

New measurement procedures would allow for more data collection about patron needs and habits within the library as well as giving new ways of discussing patron identity within the institution and what identities the system or a particular branch wants to curate within a community. These new measurements would also show policy makers that the library is not just serving as a distribution center for books and technology, but that the librarians themselves are still serving a variety of informational roles that cannot necessarily be replaced by technology. This might make it harder to cut library budgets and lead to re-evaluating how library budgets are balanced to better reflect the use patterns of the libraries in various neighborhoods rather than a blanket policy. The library could also foreground the attendance of their events and the number of books circulated within a branch but not checked out. This gives a better, though not perfect, understanding of what patrons are doing within the library and how long they might spend there. It is not just that perhaps more books are getting used, but rather trying to find a way to measure how long patrons spend in the space without violating patron privacy. For the library website, they can measure the types of comments patrons leave on various materials via the commenting feature already in place. These comments, if managed correctly, could help foster a community for those who cannot be physically present in the library. If these results were tabulated and compared across branches and librarians given more freedom to manage their neighborhood branches, the system could develop a better understanding of the diversity of chronotopes affecting patrons and their needs that are currently being largely ignored.

CONCLUSION

Technology in the public library of Chicago offers the library system a chance to challenge established ideas of what patrons do in the present idea of a public library in an era of concern about democratic processes and equal access. Recognizing the differences and

similarities in the space times of the variety of patrons a library in an area serves and how technology is both reflecting and creating social divides can yield productive conversations about what democratic institutions should look like in the future. With its focus on education, entertainment, and being a third-space, the public library can change what equal access looks like and also serve communities as a neighborhood institution that understands that not all citizens of an area are the same. Questions of access have new meaning in the 21st century because of the internet and technology, and libraries have a chance to make a huge functional difference.

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Papers 1 – Making Culture Visible

Seeing and Being Agents of Hope: Human-Centered Designers, Transportation Planning and Drip Irrigation Kits

EMILIE HITCH

Rabbit

How is hope a driver of change? This paper explores hope in two cases: rural Cambodia, through the adoption of drip irrigation by subsistence farmers, and an urban center in Minnesota, through the planning of infrastructure improvements for a freeway corridor. It also explores the argument that, with the rise of neoliberalism and global capitalism, the capacity of societies to distribute hope is shrinking (Hage 2003) and thus, in both cases, as people envision possible futures, they seek other agents of hope. Associations of hope with tangible things (e.g. drip irrigation kits, bridges, roads) drive change in the lived experiences of farming and transportation planning. For practitioners, this type of ethnographic work challenges their role regarding the value of skills in non-western and non-welcome marketplaces, the ethics of design, and their own participation in designing agents of hope.

INTRODUCTION

By the end of an eight-hour van ride home to Phnom Penh from fieldwork on subsistence farms with vegetable farmers in Northern Cambodia, our two human-centered design teams found ourselves swimming in post-it notes. Our initial analysis and sharing process had involved storytelling of each of the farm visits by each of the teams, while everyone else jotted down notes and ideas. These notes were then gathered up, affixed onto a huge wall back at the office, and organized into meaningful themes and threads regarding drip irrigation kits, mechanical farming equipment, seed sellers and the phases of agricultural development in rural Cambodia.

“You know what was most interesting to me?” I asked. “The farmer who said he invested in drip irrigation because he hopes his daughter will grow up to have a job with a pen. Should we talk about the state of secondary education in rural Cambodia for a bit? I mean, that’s potentially a big impact this thing is making...” The response from the director of the project was clear, direct, and predictable given the business context. “We’re not talking about anything that’s outside the scope of how to market the product to these users – that’s what the client asked us for and what we need to deliver next week.” In other words, she didn’t want to explore the imagined, possible futures of people, or our role in them. She wanted to sell drip kits to the right users.

Two years later, sitting in a meeting with city planners, county officials and residents of a community slated for “improvements” to a nearby freeway, a woman explained to a state employee that she wasn’t interested in hearing the presentation about the sound walls he had come to show; “I don’t want to hear about those walls,” she said, “I hope that you reconnect the two halves of our neighborhood that were torn apart when I was a kid; I hope that my grandchildren’s childhood memories will be filled with trees and bicycles.” The response of the project director in this case was similarly clear and direct. “Thank you for your comments, I’ll pass them along to the right person” – however, as I’ve heard time and again

over the past two years working in transportation planning, the response from that “right person” is actually extraordinary. That “right person” is a whole team of people working on public engagement for possible future projects in a freeway corridor. And one of the goals is, just as this woman asked for, to think about how to reconnect divided neighborhoods. In other words, one of the explicit goals of the Rethinking I-94 Project is to address the visions of possible futures for which residents along the freeway hope.

Obviously – and I in no way mean to make light of how – the rural poor in Cambodia and the neighborhood residents of Saint Paul, Minnesota have differing orientations to community, trust, morality, and the past. In Cambodia, orientations are influenced by years of violence at the hands of the Khmer Rouge (often their own community members) and the decades of poverty that followed (Zucker 2007; Boua et. al 1982; Chandler 1991; Benedict 1985, 2007, 2008; Ung 2000) while in the USA, orientations are impacted by the process of freeway construction in the 1960s, which leveled neighborhoods and tore communities apart. These historical contexts are an important part of each story in how they set the stage for the cultural foundation in and on which hope exists. In this paper, however, I will focus on the future. Specifically, I will explore the ways in which possible futures are embodied in products, the built environment, services and people, and the ways ethnographers find themselves as unlikely, sometimes unwelcome, and usually uncomfortable participants in the design and/or creation of these objects and ideas embedded with hope.

Embracing a collaborative role as ethnographer and designer creates value. The work of applied ethnographers often does the obvious thing of helping designers build products to transform users’ homes, cars and offices. But, what if we thought about it a bit differently? If we understand the outcomes of ethnography and design as embodiments of people’s hopes – not just objects that serve a users’ needs. I pose that from two different fieldwork cases we can begin to build on existing theoretical discussions of hope.

The first fieldwork example comes from ethnographic research and service design within a Human-Centered Design (HCD) lab in Cambodia. The lab is a part of a larger global NGO and manages HCD projects in many of their country offices around the world. The project involved ethnographic fieldwork with rural farmers and was centered around drip irrigation products. What we also learned, however, was how the possible futures – hopes – of farmers became embedded in the drip irrigation products themselves.

The second example is from a project called Rethinking I-94 – a public engagement design project for the Minnesota Department of Transportation (MnDOT). This project is current and ongoing, with the purpose to both create a new model of public engagement, and to pilot this model in both visioning and designing changes to infrastructure within the I-94 corridor. Insight from this project shows how hopes can become embodied not only, as in the Cambodian case, in products (in this case – roads, bridges, ramps, etc.) – but also in the design process which leads to the creation and/or transformation of the built environment.

Whether a drip irrigation kit that holds the hope for affluence or transportation infrastructure that could be the future spaces of childhood memory making – what is the place of the ethnographer in these possible futures? We work on teams designing not only the future embodiments of people’s hopes in products, but also in the physical built environment in which they live and the processes to design them– in the best cases, with the actual people who will live in them. Arguing that hope is a driver of change – and can be

embedded in things and processes, allows us to see these products of ethnography and design in a new light – and, thus, see an opportunity for applied ethnographers and design anthropologists to think differently about what we do. In other words, when we recognize the ways hope is invested in the products and processes we influence and/or design, we can also recognize and explore our role – for better or uncomfortable – as change agents.

ETHNOGRAPHIC FIELDWORK

Cambodia

Between 2013 and 2014, when I was employed as a design research fellow, the iLab in Phnom Penh, Cambodia employed various practitioners from graphic designers to industrial engineers, marketing professionals to anthropologists. During the ten months I spent working for the iLab, we also conducted research from an ethnographic approach in two, drip irrigation project-specific, fieldwork locations with rural farmers in both Siem Reap and Oddar Meanchay provinces. One key takeaway from this project was that, as these kits were being delivered down the last miles of dirt paths to farmers, they were purchased in hopes that modern equipment and farming practices would lead to a future in which their children would grow up educated and capable of jobs outside of subsistence farming. (Hitch 2017)

In Cambodia, where almost 80% of families live in rural areas, and only 36% of all rural households who own more than 1 hectare of land are able to produce more than they need to feed their family (UNICEF 2012), the introduction of “modern” farming products and practices can make a big difference. Purchasing agricultural equipment – such as a drip irrigation kit – and using it to raise a profitable vegetable garden often leads to a situation where farmers can afford both the cash and labor costs of sending their children to secondary school. This situation matters in a country where only 46% of males and 45% of females attended secondary school between 2008 and 2012 (UNICEF 2012) – often brought about because they were needed at home to work on the farm.

At the same time, in the cities, we witnessed a new middle class emerging. The first post-Khmer Rouge generation of children in the city had college degrees and jobs in government and business industries. Ex-pats called them the Khmer Riche – and consumerism was an almost palpable characteristic of these twenty-somethings drinking lattes in western style coffee shops and partying past dark in the few brand-new night clubs downtown which didn’t cater to foreigners. A new, Japanese-owned, mall opened just blocks from the traditional Cambodian house that had been my home. Cars were beginning to clog streets once used only by bicycles, motos and pedestrian traffic, and the young, married 25-year-old daughter of my landlady moved the furniture in the ground level living room each night so she could pull one car into the house and the other into the driveway; there was nowhere to park on the narrow streets outside the gate. Each time I traveled to Singapore or Hong Kong, she sent me photos from her smartphone depicting the exact Coach handbag or item of Chanel cosmetics – unavailable in Cambodia – that she wanted me to purchase for her at the duty-free shops in the airports. The child of a Khmer Rouge work camp survivor (a woman who had been a senior flight attendant for Air France before watching friends and family members killed before her eyes), college educated, and married to a government employee with a job so good they could own two luxury SUVs, she was the living embodiment of a parent’s hopes fulfilled.

In the countryside, however, in the years since the drip irrigation focused fieldwork, my colleagues have reported their frustration in seeing little transformative change. Farmers invest in agricultural products and adopt modern practices – and their vegetable gardens are visible and impressive... but iLab employees say systemic improvement in the lives of rural farmers has yet to materialize beyond some new motos parked in dirt driveways and a few solar panels. As much as these farmers invest their hope in the products of the human-centered design lab, and although there may be more children attending high school in the rural areas here and there, the effects of these changes are slow. While three years ago, the drip irrigation project team wondered, uncomfortably, what kinds of cultural change may result from their work, they wonder now, instead, if the work made any difference at all.

Minnesota

In the 1960s, America built freeways. In many cases, these freeways were built right through the hearts of cities and neighborhoods – neighborhoods which were often of poor minorities. There were no permissions needed, only bulldozers and engineers. Since that time, federal regulations have changed, such as the National Environmental Policy Act in 1970 (NEPA n.d.), and new policies and procedures have been put in place. To build a freeway today, NEPA and other policies have ensured there are federal regulations and mandates as to how to evaluate the impact of potential construction projects, and processes for permissions and approvals.

These days, however, Americans are no longer building many freeways. In some places, like San Francisco, Milwaukee and Portland (Walker 2016), decisions have been made to actually take them down. In others, like Dallas and Seattle (Walker 2016), freeways are being covered with land bridges, or “lids,” which reconnect the neighborhoods divided by the 1960s trough of concrete separating homes, businesses and other meaningful spaces.

Minnesotans don’t know what the future of this particular freeway, I-94, holds. That’s the point – there’s a whole corridor of concrete that, in the next 40 years, will need work done on every one of the 13 miles of pavement within the project area (MnDOT n.d.). However, what makes this corridor project unique in the state, is the way the transportation agency is approaching the freeway as not only the infrastructure carrying the lanes of traffic, but also the neighborhoods surrounding it, which, in their words, will be “impacted” in various ways by construction plans and projects.

The history of this particular freeway is complex. And in the past year, much of what was invisible in that history has been illuminated by different organizations and happenings. For example, a play was written about the building of the highway and performed by a local theater company. *The Highway Men* tells the story of two possible routes for the freeway – and the decision that was made to put the freeway through black, low-income neighborhoods in the southern route instead of taking the costlier route to the north (Preston 2017).

The state transportation agency itself has embraced a story of healing and rebuilding. As the project took shape, the commissioner of transportation began to speak with members of the communities who had been ripped apart. For the first time since the 1960s, the transportation commissioner publicly took responsibility for the actions of that agency at the time, recognizing wrongs and speaking to the need for healing (Constantini 2017). Mayors and county commissioners followed suit.

The real change brought about by the I-94 corridor project was due to the fact that the usual contracting became, in fact, unusual. Recognizing that public outreach and engagement were major areas of the project needing a different approach, the agency separated out what is usually a sub-portion of a major technical engineering contract organized to manage the entire “study” of the corridor, and issued it in a separate Request for Proposal (RFP) for public outreach and communications in the corridor. Their model of public engagement, they had decided, needed a re-design. Two months later, the RFPs for Rethinking I-94 were released: one for the technical/engineering work, and one for engagement. The engagement RFP included language about the agency’s desire for the awardee to use human-centered design in learning about the multiple communities in the 23 neighborhoods on the 13-mile-long stretch of state freeway. The learning from this “study” would, they posited, inform the design of a public engagement plan for the corridor for the decades-long duration of the Rethinking I-94 initiative. In other words, MnDOT wanted to learn how to engage with the people who live, work and drive along the corridor from the people who live, work and drive along the corridor. To the person, each of the various organizations we contacted for potential partnership – all of them having extensive experience working with MnDOT and other state agencies – commented to us that they had never seen a contract written with this sort of language, nor one with such an explicit structure dedicated to public engagement as its own entity.

The Rethinking I-94 “study”– technical and engagement research designed to meet the objectives of listening to technical experts and the community and stakeholders before embarking on any constructed projects – consisted of a mixed-method approach. For the engagement contract scope, both secondary and primary research were conducted by consultant teams, and both qualitative and quantitative research “listening” in each of the 23 neighborhoods occurred over the course of eighteen months. In this same time-frame, additional research and analysis was done on technical information, and fieldwork conducted with partners and stakeholders (city and county staff, elected officials, over fifty community organization leaders and staff, etc.).

While not a project explicitly investigating hope, per se, what the project revealed – and is continuing to reveal – along with a landscape of values of the community members (“ladders”), key communication methods and engagement tactics, and a vivid picture of shifting demographics and communities of interest, is that hope for the people in the corridor is not only embodied or invested in a tangible product, per se. It is invested in the built environment, yes, but also in the process of designing it.

One community organizer spoke about why they thought proposed changes to this particular freeway were so fraught. “The people here remember a different kind of life,” he said. “A life of safety and bicycles and walking to church and their businesses in a thriving neighborhood. And then the government people knocked on their doors in the dead of night and told them they had to leave their houses. They had no control over their future – no part in the decision making – no hope of doing anything themselves. The homes and businesses were torn down, a trench was dug where bedrooms once were, could no longer walk to their grandparents’ house just down the block. The freeway was in the way. Now, they have a chance to change things. The future possibility of building a land bridge, or a lid, over the freeway – and the organizations actually working toward that vision – give them hope of living again in neighborhoods where their kids can create those childhood memories

... Even hearing MnDOT talk about process changes and more opportunities for public input has given them hope.”

The components of the freeway – and, to be specific, a vision of the future freeway and surroundings yet to be built – are embedded with hope by the people living near them in this context where real opportunities for contribution and collaboration are being created by the designers and decision makers. The residents of the 23 neighborhoods along the corridor hope for a possible future where cultural and social vibrancy comes back into the urban landscape and livable space. This corridor vision and the story of Rethinking I-94 demonstrates a case of hope investment in process – not long ago, the vision for changes to this corridor didn’t exist in anything other than the hopes of community members. But, that hope has become a real driver of change.

In the past six months, an organization called the Urban Land Institute has conducted an analysis of the feasibility of three sites for new types of built structures – such as potential land bridges (ULI 2016). The USDOT selected Minneapolis as a site for a “Community Design Workshop” to discuss and vision the future of two different sections of the freeway (MnDOT 2017). And from all of these separate happenings, community members and other stakeholders met each other and created a LLC called Reconnect Rondo which is a coalition of multiple community organizations and individuals (Reconnect Rondo n.d.), they have secured funding for the coalition for a year, and they are working with all of the necessary parties (legislators, state, county and city staff, business interests, artists, residents and neighbors) to make their hope a reality.

HOPE AND THE ETHNOGRAPHER

For applied ethnographers, our work is often situated in the context of capitalist consumerism. We investigate the things people desire, what they need, what it means to accumulate these things... and what these accumulated things mean to people. I’ve thought about why people desire hockey skates, or rifles, why they buy hay balers or fleece jackets – and how they buy them. But, in Cambodia, with drip kits invested with hope, and in Minnesota, where possible futures have transformed public contribution to the process of transportation planning and design, the why is about more than just accumulation, or desire. It is also about hope.

Vincent Crapanzano (2003) argues that the difference between the concepts of hope and desire ultimately lands on what he calls their “agent of fulfillment.” He states that “one acts on desire,” but that hope “depends on some other agency—a god, fate, a chance, an other—for its fulfillment.” (2003:6) Hope is, according to Crapanzano, the “passive counterpart” to desire. (2003:6) Hirokazo Miyazaki (2004) explores a more active concept of hope, calling it not a category of experience but “a method.” His fieldwork on Fijian gift-giving explores the interplay between gift-givers and receivers, and identifies therein what he calls “moments of hope” in which people can defer “their own agency, or capacity to create effects in the world” to others as they wait in turn for their gifts to be reciprocated. (Miyazaki 2004: 7) Miyazaki’s hope, like Crapanzano’s, does depend on some other agency for its fulfillment, but his concept is more active, more forward thinking. Hope, for him, is a method for future creation – beginning with an action that places that very hope with someone, or something, else.

Miyazaki also explains that hope is always pregnant with a foundational understanding that things can change. He says hope is “anchored in [an] understanding of culture as a creative and inventive process.” (Miyazaki 2004: 7) What – or who- drives that invention and creative power is at the crux of that question that tends to make ethnographers and/or designers uncomfortable. We wonder “How do we know we are doing no harm?” “What role, in the transformation of culture, is ours?” “Is there good and bad when it comes to the fulfillment of desire? When it comes to hope?”

With some consumer goods, this question is easier to answer. Buying a hockey skate is about both desiring the product and hoping to win a championship. The ethnographer has nothing to do with it. You can’t win the game without the skate, true, but, the skate isn’t what wins the game. Hockey players can’t accumulate skates or sticks as a means to success – they must continue to act. They have to practice and play. Hope is the driver of those changes – changes to the routine, to the mindset, to the purchases of better and better equipment. Act on desire – purchase. Act on hope – practice and play. Seeing that hope is a driver of change, I disagree with Crapanzano – hope is not always passive.

Nor is it to be taken lightly. We applied anthropologists and ethnographers talk and write endlessly about how products represent identity, status, happiness and desire... but we rarely talk or write about hope. Crapanzano suggests we don’t talk about hope because it is possibly at odds with “today’s aggressive individualism or to a consumerism that cultivates instant gratification” (2003: 5). I suggest that hope and consumer culture are crucially intertwined in the creation of long-term futures. It is in this future creation that hope can, actually, be aggressive. No one knows this better, I think, than ethnographers. Often asked to speak for others – whether in an “insights report” or “user-need-based design principles” – we dance around the work delicately, referring to appropriation of voice or activism or intervention... but one of the moments when we feel most uncomfortable is when we see a light of hope – maybe false, maybe possible – go on in our subjects’ eyes. When we think our very presence, even in academic research without goal of solution or design principle, leads people to, as Miyazaki (2004) says, defer “their own agency, or capacity to create effects in the world” to us? We reflect.

A farmer’s hope for a future in which a child goes to school, grows up, and becomes something other than a farmer is embedded in a tangible product – a drip irrigation kit. Step one: hope. Step two: purchase. Hope for a future in which a pedestrian bridge exists because of public participation is embedded in a new state planning process. Step one, hope. Step two, participate. The existence of hope drives the purchase of a product and the active participation in a new process to fulfill it, and while neither hope can be fulfilled without “some other agency” – in these cases, however, that agent is not a god, a fate, or a chance... it’s an outcome of ethnography and design.

The idea that something or someone can be an agent of hope can be a weighty concept to carry. There are many contemporary and examples of agents of hope. Presidential campaigns are run on this concept. Nurses and doctors provide care, medicines, and treatments that can act as agents of hope every day. The people who answer the phones at a suicide calling center describe themselves as givers of hope, as do interns who send emails from LGBT refugees with nowhere left to turn. Humans answer many questions with hope. They cling to their ability to imagine possible futures. They find it in things, or turn to receive it from others when they can no longer hope for themselves. Hope is a crucial motivating force of social and human life.

So then, what does applied ethnography have to do with “hope as a driver of change?” When considering that design is essentially a practice of creating future worlds, the opportunity for ethnographers to make meaningful contributions is obvious. Especially now.

We live in a time thick with two things – global capitalism, or “the rise of transnational capital, a transnational capitalist class, and a transnational state,” (Robinson 2014) and neoliberalism, where “market relations and market forces operate relatively freely and play the predominant role in the economy” (Kotz 2015). Taken together, we can see the fading realities of many elements of what citizens once experienced as “the nation-state.” Against this backdrop, Ghassan Hage argues that the capacity of societies to distribute hope, to be that other agency, has been considerably weakened (Hage 2003).

What else might have capacity to, as Hage puts it, distribute hope? Innovation? Collaboration? Programs? People? Products? It is obvious, as many have said, that hope is situated (and transmitted) in culture (Hage 2003; Miyazaki 2003; Bloch 1986; Toren 2003; Fong 2004). Therefore, these emerging agents of hope must be acceptable within the culture and context of the time. A recent book of case studies in design anthropology discusses how we might study “ethnographies of the possible” – “the basis of which we imagine and create possible futures.” (Smith et al. 2016: 4) The authors define the future as “a multiplicity of ideas, critiques and potentialities that are embedded in the narratives, objects and practices of our daily lives.” (Smith et al. 2016, 1) As I discuss in *Culture Change from a Business Anthropology Perspective* (Hitch 2017), we don’t live for the future – we live *with* it. And we don’t just *live* with it – we design it. In that volume, I’ve written about hope using assemblage theory to demonstrate how the ways “farmers act upon the world in the present depends on their access to other agents of hope – elements in the assemblage such as designers, innovative irrigation equipment, and teachers – to bring about a possible future.” (Hitch 2017) Piece by piece, drip irrigation kit by drip irrigation kit, farm by farm, road by road... city by city.

In both Cambodian and Minnesotan fieldwork contexts, the designers of these possible futures are outsiders – non-Cambodians working in international development organizations who intervene in daily life with new products borne from “innovation,” and, in Minnesota, non-residents to the communities along the freeway who intervene as applied ethnographers, engineers, project managers, and city, county, state and federal stakeholders. They are all, in a sense, designers of futures – potential drivers of change. For many of us, used to a tradition of critique, not a tradition of intervention, it’s an uncomfortable position. What if we carve out a little bit of that category of experience, however, and think of change through the lens of hope as something to be invested in things?

When applied ethnographers see hope as invested in – and a driving force for – change and know it’s being invested in things, we can add value to the design process by finding ways to ask different and meaningful questions about the hopes yet to be invested and the things themselves. We can reframe the investigation of desires and needs for these things, services, and infrastructure to better represent and articulate, essentially, hope. In other words, ethnographic exploration of the hope in things can help design processes and outcomes to better serve the people who will live in the future worlds we design.

THE ROLE OF THE ETHNOGRAPHER

Hope and change are (obviously) not only of value to the business community. Politicians also utilize their mechanisms, as do religious leaders. However, I think that to make a critical

examination of change through the lens of “hope as invested in things” gives us a different way to think about what we do as researchers and designers, and leads us to new fields in which we come full circle to the value of long-term, ethnographic fieldwork.

Another piece of that global capitalism, neoliberalism, big picture-ism story is how the lines between industry and government, government and NGO, for-profit and non-profit, are blurring. As Hepworth states in a case study regarding a communications design project to gain widespread public approval for neoliberal reforms in Australia, people are “reframing local governments as business ventures, and their citizens as customers” (2017: 30). Further to this idea, Bason (2014) articulates, in *Design for Policy*, that design “emphasizes people’s experiences rather than the system’s priorities. Design enables collective participation in generating and exploring new solutions” and “design for policy changes the processes of policy-making.” (2014: 276)

Transportation planners talk often about “community before concrete” and “people before pavement.” We hear often how the vision people have for this corridor is that it won’t be designed with a “cars first” mentality. “Getting more cars down less streets faster and safer” is not, actually, what people hope for. To that end, they are changing the processes of policy-making to earlier and more often incorporate visions for the future (the hopes) of the people who live on and near those streets. And to figure out how to do it, they employed an applied anthropologist.

The value of our work in applied fields is something to which multiple EPIC authors have spoken in the past, our role and our contribution is often questionable and in question – not only by the community, but by ourselves. As Maria Bezaitis pointed out, “we need to be able to continuously redefine the parameters and content of [our] relationship to industry.” (Bezaitis 2009: 154) This relationship, Gerald Lombardi reminded us in the same year, is that we’re often faced with “a well-known design and engineering project triangle: Good, Fast, Cheap: pick two.” (Lombardi 2009: 47) He argues this unwritten rule is one that threatens the de-skilling of our work as ethnographers. In 2011 Alexandra Mack asked us to take up Flynn and Lovejoy’s call to “redefine perceived value beyond our immediate contexts of praxis” (as cited in Mack 2011, 18) and Stokes Jones called on a balance of theory and ethnography – and of “putting individual performance at the center of ethnographic practice” (Jones 2010) – to do so.

In terms of the role that we play, Merietta Baba calls on us to be collaborative (Baba 2000) and Sam Ladner explains how applied anthropology can challenge a researcher’s essential view of themselves and turn us into purveyors of “uncomfortable knowledge” – or, the “bearers of bad news” to established belief systems within companies and organizations (Ladner 2015; Colson as cited in Ladner 2015). The identity of the applied ethnographer is often challenged as well. We, depending on the day, self-define ourselves as humanists, technologists, interpreters, truth tellers, researchers, and designers. We help to build not only objects or products with tangible value, but also to design services, public engagement, and other processes in the public sector which shape the world around us.

Even within many of the agencies for which we work, consultancies, advertising, design, etc.; we see a shift from “creative” to “innovative” with strategists and developers solving many problems once solved by copywriters and art directors. The difference in the public sector, however, and in long-term, slow-moving contracts with government agencies, is that ethnography is ever happening. “User research” is often conducted with stand-ins for future customers (Cohen 2005). However, engagement research and design can happen with the

actual people who will use the actual service, product or experience. By their mere presence in the process, those ethnographers working in such fields help to design the world neighborhood by neighborhood or system by system.

Reorienting our work to the hope people invest in things can show us both what is in the “possible futures” we help to design and also the mechanisms by which people “act upon the world” to bring them into being. When we broaden our definitions of “industry,” “findings,” and “deliverables,” there is an opportunity for the work of the applied ethnographer to not only share the findings we “see” in “users” standing in for later customers, but also to be co-creators of possible futures with the people who hope to live in them.

Designing in real-time the worlds in which we live takes design consultancies, IT professionals, industrial designers, developers, meaning finders, and meaning makers all together. Solving systemic and social problems (like redesigning the healthcare system), especially amidst disintegrating nation-states and fragmenting markets stretching to meet changing consumer desires, will take corporations, start-ups, government agencies, technologists, designers, strategists and ethnographers. There is a need for long-term fieldwork with application to design and other practices in real-time. It’s fieldwork as design project, or design project as fieldwork – or both. There is, essentially, a need for participant observation at its best.

CONCLUSION

Bronislaw Malinowski told us that anthropology is about making sense of the “hold life has” on human beings (Malinowski 1922). The hold life has, I know, has something to do with hope. It might actually have everything to do with hope. When we see people as beings with agency – it’s not actually the hold life has on us, but the hold we have on life that drives us. The hold we have on hope. When that hold becomes brittle, tenuous, distant or absent? Well.

Ethnographers face uncomfortable moments when we realize that “the hold life has” could have something to do with us or we could have something to do with it. We often wonder if we are doing great work that could impact a generation or if we have no business working where we are at all. For example, the realities and barriers of otherness between native Cambodians and the international development community are vast and complex. For some, the foreign aid is welcome, to others it is an imposition. And ethnographers often have a problem with imposition. We wonder if we are doing good or doing harm and the answer is not always clear either way.

Psychology tells us, however, that grounding our work in designing and creating agents of hope is beneficial to people. Hope is the positive catalyst of optimism and change. It alone does make people’s lives better regardless of whether or not it is ever fulfilled – as long as it’s not given up. The act of hoping itself is a healthy one, and hoping is the first step to change.

Gabriele Oettingen, a psychologist at NYU, describes throughout her work (Oettingen 2017) how “big hopes” may be difficult to fulfill, but they are “the beginning of action.”

They give action the direction, but they don't give action the necessary energy. In fact, when we induce participants to positively fantasize, to ideally depict the positive future, then we find that the blood pressure goes down, and then we find that the feelings of energization go

down, and we find that people feel already accomplished. So they relax. They relax because mentally, they're already there.

Hope is the first step, and once someone is “already there,” they can begin to think about the obstacles in their path and the actions they will need to take to fulfill their hope. Hockey players make practice schedules; freeway corridor residents organize, plan and participate. Oettingen’s work provides solid empirical evidence that a process of turning hope into action brings people closer to successfully fulfilling their dreams (Oettingen 2017).

Hope is a crucial driver of change. Of the hold we have on life. Where people invest it and how they share it are, I think, great anthropological questions. If we, the applied ethnographers, can see hope as a driving force for change, we can ask different and meaningful questions about its agents. We can ask about the desires and needs for the things, services, infrastructure and, essentially, the future worlds we help design of the people who will live in them. Knowing hope can be invested in “things,” we can bring this knowledge to the designing of products and processes. By aiding in designing things well, applied ethnographers can (or perhaps inadvertently or even unwillingly do) take on a role of change agent, bringing to life products and processes that are more or less likely to lead to hoping and hopes’ fulfillment. The work of transportation planning and social impact design are complex with expectations, perceptions, injustices, and issues of equity, promises, funding surpluses and shortages, and realities that engineers and designers work and people live within. But this work is also hopeful.

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Papers 1 – Making Culture Visible

Autonomous Individuals in Autonomous Vehicles: The Multiple Autonomies of Self-Driving Cars

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We take the polysemy at the heart of autonomy as our focus, and explore how changing notions of autonomy are experienced and expressed by users of self-driving cars. Drawing from work-practice studies and sociomaterial approaches to understanding technologies, we discuss how driving as a task is destabilized and reconfigured by the introduction of increasingly automated systems for vehicle control. We report on the findings of a hybrid ethnographic experiment performed at Nissan Research Center – Silicon Valley, in which we video recorded interactions of 14 participants inside a simulated autonomous vehicle, and conducted semi-structured post-interviews. We look at the responses of our participants in light of three different themes of autonomy, which emerged through the analysis of the study data in the context of a broader program of ethnographically informed research: autonomy as freedom from the task of driving; autonomy as independence and individual labor; and machinic autonomy's ironic opposite, an increasing interdependence with human-machine systems that raises new issues of trust and control. We argue that AV development will have to address the social dimensions of roadway experience, and that this will require a multi-perspective approach (speculative work alongside other empirical examinations) to the specific ways human autonomy and sociality is aided, altered, or undercut by these systems.

“Finally, when everything else has failed, the resource of fiction can bring—through the use of counterfactual history, thought experiments, and ‘scientification’—the solid objects of today into the fluid states where their connections with humans may make sense. Here again, sociologists have a lot to learn from artists.” (Bruno Latour, *Reassembling the Social*, p. 82)

INTRODUCTION

“Could you turn on the autonomy for me?” A few beats of silent confusion follow. “See the little button on the right side of the steering wheel that says ‘CRUISE ON/OFF’? Press it for me.” After a moment’s pause, the participant has found the button and things start to move. The system management displays tucked behind the simulator show the little vehicle icon beginning to glide along schematically represented streets. This being a simulator, the car itself doesn’t go anywhere, but around it, on 360 degrees of screens, the virtual terrain begins to shift, a little sickeningly. “Ok, press it again. Good. When I ask you to start the experiment, just press that button again.” The simulator car’s cruise control button, made unnecessary when the vehicle was immobilized—engine removed and wheels propped up—has been co-opted to instead switch the software automation systems. This button, in the lab’s parlance, turns *the autonomy* on.

But what is really being turned on and off, being enabled and disabled, in this interaction? *Autonomy* is a multifaceted and complex notion. It can evoke the autonomy of the liberal individual, the autonomy of the nation-state, and the autonomy of the self-operating machine. The language of *autonomy* is in tension between technical and colloquial use.¹ Speaking of the *autonomous vehicle*, then, often elides the question of “what kind of autonomy?” Or “whose autonomy?” Autonomy from or relative to what? There is a seeming self-evidence in the notion that the machine is autonomous because it is somehow operating outside of human control. But we suggest that when people talk about the “autonomous car” they do not simply mean “the car that is autonomous,” but also “the car that makes *me* more autonomous.” So what needs to be asked may be less about the technical capacities of the system, and more about its human meanings. What kinds of new interactions are being produced? What do users give up to gain the convenience, or “autonomy,” they believe they want? And do they really want it when they have it?

This dynamic highlights the strange polysemy at the heart of autonomy: one may be freed from certain tasks but also further embedded in sociotechnical systems that are beyond individual control. Here we explore this dynamic as a speculation on a future with increasingly automated vehicles in our midst. As developers of automated vehicle systems, we are implicated as part of the source of users’ struggles; we too are trying to come to terms with what kind of a world we are involved in producing, even while we attempt to direct it for the better. This study is an attempt to reckon with the direction of that future. First we further develop the background and approach to our investigation, which takes the form of a hybrid “ethnographic experiment.” Then we examine three key themes that emerged in our research: the contingency of autonomy, the awkwardness of monitoring and being monitored, and the difficulty of trusting in humans and machines. We argue that the price of achieving one sort of autonomy is perhaps the sacrifice of another; and that users recognize this, as they struggle to come to terms with the ways their existing ideas about trust, and practices of interacting with vehicles, must shift in relation to machine autonomy. Finally, we reflect on our use of a speculative approach to elicitation in our attempt to design new relationships between human and machine autonomies.

BACKGROUND AND APPROACH

Our theoretical and methodological perspectives draw from literature in work-practice ethnographies, actor-networks, sociomateriality, and grounded theory: in this tradition, we take seriously the situatedness of human action. Ethnographies of all manner of practice have long exposed the contextual nature of meaningful human action. What we do is dependent on our environment. As Jean Lave describes in *Cognition in Practice*, the shopper may not know quite what she is buying until she sees it on the shelf, and is confronted by the options before her (Lave 1988). Or as Hutchins shows, pilots communicate and form plans, not as individual brains with separate mental capacities, but as a “cockpit system” with “cognitive properties” defined by social and material factors: people, radios, gauges, pips, and paper cards (Hutchins 1995b). Technical approaches to driving split driving into multiple kinds of tasks—e.g. Strategic, Tactical, and Operational components, that break down the act of driving into trip planning and route selection, maneuvering, and split-second responses (Michon 1985). In contrast, we attend to driving as a cultural and sociomaterial practice. In other words, driving is a practice that happens in relation to others and the

world, emerges from the interactions of social actors and material objects, and which makes meaning as it serves practical needs. Drivers do not just perform tasks. They have bodies and cultures. A focus on the embodiment of work likewise exposes, in what might have seemed empty from an information-processing vision, hidden plenitudes; an ancillary activity such as accounting (Suchman 2011), or in our case performing responsibility in mobility, may become a key source of social meaning.

For example, Lutz and Fernandez suggest that automobiledom has become implicated in the “myth that good parenting” in the modern cultural mode “means ferrying one’s children in the car” (Lutz and Fernandez 2010, 26). Such ferrying is not simply operational, getting one’s passengers from A to B, but is about caring, providing for, and performing the role of guardian. Thus we should not expect that replacing the parental driver with an autonomous robotic chauffeur should leave participants’ affective relationships unchanged. Even the Vatican, hardly the first place one thinks of as a bastion of revolutionary sociology, has identified driving as a social act: their guidelines for Pastoral Care of the Road state that driving is “basically a way of relating with and getting closer to other people, and of integrating within a community of people” (Lutz and Fernandez 2010, 158). The social extends beyond the technological frame of driving as mechanical control.

Science and technology studies work has shown that supposedly autonomous systems are rarely so in practice; “full” autonomy is a mirage, and even systems that might seem quite outside of human control, like Mars rovers, are part of complex systems of human oversight and joint action (Clancey 2014; Hutchins 1995a; Mindell 2011; Mindell 2015). Nissan has taken the approach of embracing joint human machine control. One manifestation of this is the Seamless Autonomous Mobility (SAM) concept, in which remote human vehicle managers can step in to instruct the automated vehicle (AV) in problem situations. This “teleoperations,” or human supervisory control, approach (Sheridan 1992; Woods and Hollnagel 2006) keeps humans in the loop to handle edge cases and novel situations not yet learned by the system. It also opens up all manner of new human-machine interaction considerations. The literature in human supervisory control is likewise clear about the fact that automation does not merely eliminate, but changes the tasks performed. But sociomateriality extends this reductive, task-based thinking. Humans in cars do not merely move wheels and pedals in functional ways. They negotiate and wayfind (Brown and Laurier 2005; Keisanen 2012; Laurier, Brown and Lorimer 2012). They express their autonomy as mobile subjects (Bishara 2015). Humans in automated cars will share many of these practices. And these practices matter for how vehicles will be thought about and used.

The characteristic elision of sociomaterial complexity that underlies “autonomy” is not unique to automated vehicles. It appears across modern design and engineering practice. Any organization that tries to make a product or service better, easier, faster, or more efficient for the user inevitably faces the question of who their user really *is* (Cohen 2005), and what their disruptive innovation really *does*. For whom, and from what perspective, do things become easier? Or more difficult? Ethnographic studies of collaborative work practice (Cefkin 2014; Cefkin, Thomas and Blomberg 2007; Suchman 1998), and sociomaterial approaches to technology (Orlikowski and Scott 2008; Scott and Wagner 2003; Suchman 2007), have exposed the complexities of these kinds of questions. Technical interventions reconfigure existing ways of doing things that have developed through intermeshing of human needs and technical affordances. The social and material develop together, and

change each other; but sharp breaks in the material properties of work systems force corresponding restructurings of social processes.

For example, Suchman and Jordan (1989) argue that information processing tasks in the workplace are often automated without attention to real complexities, focusing instead on the small task components that are amenable to ICT-based approaches. The resulting tools, awkward and often ill-fitting prosthetics for labor, require new adaptations by remaining workers. This pattern of “appropriation” (Suchman and Jordan 1989) applies equally to the automation of driving. Since the task of driving is more than rule following—staying in the lane, obeying lights and signs—to drive is not only to navigate through physical space, but through a social space of symbols and cultural signals (Bishara 2015; see also Goffman 1963). When one extracts the mechanical components of driving and replaces them with a new sociotechnical system of automation or “heteromation” (Ekbia and Nardi 2014), one gets the sense that automation could proceed from partial to complete in a piecemeal fashion. But this is an illusion: the task of driving, and its social meanings, would not remain fixed in this transition.² Practices are moving targets.

Appropriations in design are always partial. What tasks can be productively automated, and how, is a constant problem for the development of automated systems—and a key issue for us as autonomous vehicle designers. Many questions emerged for us in thinking about the human side of supervised autonomous control: How would human passengers respond to oversight or intervention by remote human beings? How long would they wait at an obstruction for a vehicle manager to bail them out? And how comfortable would they be about that interaction? How would they perceive their new relationship to the vehicle system? Adding autonomy to vehicles is a moment in which we must ask how the rest of driving practice, cultural and psychological, will respond. But we face the difficulty of how this can be investigated empirically.

These changes are still speculative ones, as the systems that stand to precipitate this restructuring are still in development. Building on critiques of the doctrine of studying the “out there” and in the spirit of anticipatory or speculative ethnography (Halse and Clarke 2008; Lindley, Sharma, and Potts 2015; Nafus and Anderson 2006; Venkataramani and Avery 2012), we have had to make our own microworld in which to observe these phenomena.

This paper draws especially from data gathered during a simulator experiment performed by social science researchers at Nissan Research Center – Silicon Valley. On first glance, our materials are not particularly ethnographic. Participants experienced a series of interactions as if they were in an autonomous vehicle that was driving them to a meeting on NASA Ames campus. The simulator used had 360-degrees of screens around a real vehicle at its center. Each participant experienced two short drives in which events in the simulated world required the vehicle to come to a halt. We video recorded their responses to these situations, and performed post-interviews. We gathered approximately 7 hours of relevant video data, and 7 hours of interview data, from a total of 14 people. However, we did not approach this data from a functionalist, experimental perspective (for example, one interested in measuring reaction times, or quantifying the user’s gaze). Instead, we examined the data anthropologically, looking at users’ interactions with the system as material that expressed their perspectives on the system, their beliefs about it, their comfort or discomfort with it, and their needs, wants, desires, and systems of meaning and interpretation. This experiment was one of several elements of a broader program of research into the social

implications of autonomous vehicles (Vinkhuyzen and Cefkin 2016), which also included field observations, interviews, and other ethnographically informed approaches.

In this particular study we observed participants as they encountered two kinds of obstacles in their autonomous vehicle, a construction zone and an accident. In real life navigating such instances requires drivers to assess the appropriate maneuver—to wait (and for how long) or to go around (when it is appropriate to do so)—and to make a potentially illegal move that is nonetheless consistent with the expected rules of the road in this instance: crossing a no-crossing line (in the United States, a double yellow line) and passing on the wrong side of the road. The AV would require a new path to pass the scene, and it was here that a remote supervisor was available to assist. Using the on-board sensors, the remote supervisor could assess the situation and send the AV new instructions. Our question was whether participants would take over for themselves—they were free to take over manual control at any time, though they also had secondary tasks to perform on their devices—or let the remote supervisor do so. We also wished to identify when additional information or status from the remote supervisor would be sought by the participant.

After participants experienced the two drives, we performed semi-structured interviews with an eye toward eliciting why participants chose to preempt or wait for the automation system at various points. And we sought to identify what aspects made them comfortable or uncomfortable, how they made sense of these issues, and how they would feel about using a similar system in the real world. This hybrid mode of investigation, building from design anthropology, is a way for us to overcome the difficulties in studying speculative objects. Technologies that do not yet exist must be imagined or brought into being as they are investigated. We undertook this study with an ethnographic sensibility, intending to examine the patterns of life that would emerge in the day-to-day interaction with the technology.

This investigation exposed a variety of fascinating responses to the experience of being conveyed around by an automated vehicle in a simulated world. Autonomy, as our participants describe, is a partial and contextual thing, which must be negotiated between humans and machines. It also implies a freedom from restraint that conflicts with, and must be rethought in light of, remote human monitoring. And it demands a level of trust in human-machine systems that brings with it concerns about privacy and surveillance. These multiple autonomies (from labor, from others, from oversight) are the stage for coming conflicts about the value and purpose of mechanical automation, on and off the road.

WHEN IS MACHINE AUTONOMY DESIRED?

The automobile, as perhaps the ultimate tool for individual mobility, is intended to be convenient. Buses and trains run on schedules. They require waiting at stations, and transferring from one to another means even more waiting (or, even worse, missing connections entirely). A person who hops on the train cannot simply go where she wants—the train traveler, as in *The Practice of Everyday Life*, is regulated and immobilized by the chiasm of the window and the rail, which makes change visible but prevents the subversion of motion (de Certeau 1984). The car, by contrast, is the choice of the liberated individual who wants to move on demand: where she wants, when she wants. Automobiledom promises “independence from reliance on the schedules and desires of others” (Lutz and Fernandez 2010). Our participants revealed to us that vehicle autonomy is indeed desired when it adds to human autonomy, and when it frees people from tasks they dislike, but not necessarily

when it limits their perceived freedom. Machine autonomy is contextually, not universally, good.

This whole notion of car-based freedom is, as Fernandez and Lutz point out in *Carjacked*, a pleasing and socially costly illusion. The automobile as a tool of individual mobility has been historically inseparable from a new kind of experiential imprisonment. Car travel is in its own ways profoundly constrained and inconvenient. The traveler finds that the roads are never clear just for her. Other people get in the way. Highway hypnosis, road rage, headaches; accidents, traffic jams, finding parking; wide avenues and suburban sprawl; breakdowns, maintenance, repair; even smog and pollution: these are the costs of the automobile. So the autonomy of automobility brings with it the convenience of going where one wants to go, but also the inconveniences of traffic, risk, and mental and physical labor. And these are among the problems the automated car seems poised, perhaps, to solve. The car, as a latent space of inefficiency and un-productivity, is perhaps ready to be “reclaimed” for sleeping, reading, eating, or most ironically for many of us, “productive” labor. (We would challenge the notion that time spent in the car, thinking, seeing, listening, and experiencing, is truly waste, but no matter.)

The participants in our simulator received a taste of this life of mobile leisure: whisked around a virtual map of NASA Ames, from one imagined “meeting” to another, they were free (and encouraged) to be on their laptops or phones as long as they were comfortable that the vehicle was operating safely. And most at least seemed to be. They glanced up a lot, especially at first, and a couple spent enough time looking out front that they did not finish the preparatory tasks we set them (fictional preparations to make for their meetings). But most were eventually engrossed in their devices. This level of focus sometimes produced amusing results. Nate, a 22 year old intern, suffered a simulator glitch that teleported him inside a truck—his simulated AV instantly jumped 25 feet down the road due to a human error in our configuration of the test. As the screens around him went entirely white, he looked up, shocked and confused, unsure of whether the vehicle had crashed into something while his attention was elsewhere.

In general, passengers possessed a marked ambivalence toward machine autonomy. It was convenient, to be sure. Though participants’ responses were clearly colored by knowing they were safely ensconced in a simulator, they reported enjoying the freedom to surf the web, write emails, and even to take in the simulated scenery without concern for crashing. But different participants displayed different levels of comfort with the operation of the system in the test, and imagined different responses to it on real roads. What is most surprising is that these responses were not binary, yes or no, “I would use it” or “I would not.” The context of use mattered significantly. Our post interviews exposed that participants perceived commuting to work or going to a meeting as qualitatively differently acts of driving than driving with one’s children or on weekends. These are different sociomaterial practices, and put the driver (or erstwhile driver) in a different relationship to safety, risk, and responsibility by virtue of their social relation to others in the vehicle, and their reasons for travel. Multiple passengers suggested that they would be more willing to entrust their *own* safety to the system than that of friends, coworkers, or family members. Responsibility to others in the car would be performed, our participants’ responses suggest, by taking over. If his partner was in the car, one said, he would turn the automation off. Exposure to quantitative measures of risk and safety—reduced accident rates—and more experience with the vehicle might alter these responses over time. But these responses show

that the quantitative measures of risk that dominate the discussion of AV development and AV ethics are disjoint from the actual experience of responsibility. Being responsible means more than being numerically safe. It means being accountable, acting, being in command.

By virtue of our working in a car company in Silicon Valley, many of our coworkers are white-collar “gearheads” (one author included). And so our population of internal testers skews toward this demographic. They are information workers with long commutes, for whom an automated car really could be an office on wheels. And yet many of them love to drive. As such, they might seem to embody a contradiction as they work to automate away something they love to do. Indeed, many of our passengers suggested they would override the autonomy in real life, or might turn it off in particular circumstances, relying on their own skills instead of programmatic ones. But even the car enthusiasts among them expressed contextual preferences rather than flatly opposing the use of vehicle autonomy. Not everyone who is excited about driving and motorsports is interested in always controlling their vehicle. Emily, an administrative assistant, declared that she looks forward to being able to be on the phone in her car, despite also being an avid motorcyclist. When asked if she wanted a self-driving motorcycle, she denied this vehemently. She replied: “I want to drive when it’s fun to drive and I’m in the mood” and not have to drive when tired, in traffic, or when the drive is otherwise “uninteresting.” Questions about comfort with autonomy have no blanket answer; participants generally differentiated situations in which they would comfortably use autonomy and situations in which they would not. So whether or not to use vehicle autonomy is a choice that is made and remade, not a single binary decision.

This feedback suggests that any solutions for teleoperated remote control of a vehicle must also be sensitive to contextual preferences. Its efficacy may vary depending on the passengers present, the purpose of the trip, and the conditions on the road. Humans inside the vehicle may wish to interact with the autonomy and supervisory systems in different ways. Where these lines are drawn may be deeply personal, and we have no general answer—though Emily’s response distinguished the city from the mountains, and traffic jams from the open road, others might cut up their world through a different sort of analytic. Driving is a social act in the quotidian sense of interacting with others in shared spaces, but as Bishara points out, driving also produces special kinds of socialities within the vehicle and between those in the vehicle and their environment (Bishara 2015). The road may be subverted, experimented with, made into a field for the construction of a driverly identity; particular roads or locations may be haunted by past events—accidents or breakdowns—and thereby require special attentiveness (Verrips and Meyer 2001). And car ownership and use itself may be a medium for social ties of responsibility to others (Myers 2017). Driving is a “technique of the body” (Bishara 2015, 36), and autonomy destabilizes its practices. Machine autonomy is not a natural good for people in cars, always, all the time. It is another thing that people may wish to turn on and off, something that must be made sensitive to the needs and desires of passengers on a particular trip.

THE AWKWARDNESS OF HUMAN MONITORING

The American imaginary of the automobile puts the lone individual on the road facing off singlehandedly against the wilderness. One need look no further than automobile marketing to see the preeminence of this idea. Across deserts, through green forests and urban jungles,

up and down mountainsides, our objects of automotive desire are flaunted before us as things untethered from the strictures of daily life. Though this image is always beyond our reach as the product of a carefully produced mediated fantasy—as the tiny white text on these advertisements often says: Professional driver. Closed course. Do not attempt.—it still manages to compel. But the autonomous car, whatever its name, will never be “fully” autonomous. The automated car is a networked device, dependent on interactions with global information networks for everything from maps to traffic data to vehicle-to-vehicle or vehicle-to-infrastructure communications, so it is likely these vehicles will never be able to be unplugged (Stayton 2015). They will be, like our phones, connected devices; and, like aircraft, trucks, buses, and other fleets of vehicles, they will be remotely monitored and managed. Passengers may well become accustomed to this kind of connected experience, but the responses of our participants suggested this will be no easy or simple transition. Being monitored by a remote supervisors involves a distinct kind of driving experience.

Nissan’s SAM concept in particular puts remote human managers in charge of helping AVs through difficult situations. And the experience of this kind of remote management is fundamentally new to the average driver. Assistance services like OnStar exist, and already provide a significant amount of information to the personnel who manage the vehicles, but they do not yet direct the path of the car. Remote starter interrupt devices—installed for example by “Buy Here, Pay Here” used car dealerships to disable the cars of borrowers who get behind on their payments—get closer to the phenomenology of the remotely managed car. But these can only stop vehicles rather than making them move (Hill 2014). For all our participants, their simulated drive was the first in which they had been told that a human vehicle manager, located remotely, would be monitoring their vehicle’s progress and intervening if the vehicle came to a stop at an obstacle that the autonomy could not handle on its own.

Participants were told at the start of the experiment that there was a human teleoperator who would be monitoring and could provide assistance. In addition, passengers were always notified of the human teleoperator’s engagement. A display in the dashboard provided the car’s status: “Waiting for Supervisor,” “Supervisor Engaged,” “Following Supervised Path,” as the vehicle waited for assistance, registered its connection to a remote manager, and then carried out that manager’s instructions. This low-impact approach meant that for many participants, the supervisor faded into the background even to the point of invisibility. When they had to wait, they were waiting to see if “the car” could “figure things out.” Several, including Charlize, a 25 year old analyst working in human resources, reported that they did not think about the involvement of the remote human until they had been stopped for some time—agitated, looking ahead at the construction zone in front of her, she touched the wheel to take control just as the supervisor’s instructions made it to the car, some time after her vehicle had reached the scene; “Okay then” she muttered under her breath, her tone conveying surprise mixed with some annoyance. A rare few, like Emily, never thought about the supervisor at all.

But when they did think about her—when pausing caused participants to reflect on the nature of their relationship to that remotely located human they had potentially never met who was about to take control of their vehicle—responses turned to interesting directions. Nanak, a summer intern working on vehicle simulation, said he did not try to contact the human operator because he did not want to “bother” her. He explained that he could clearly see and handle this situation himself. So why would he involve a skilled operator whose

services might be needed elsewhere? The assumption that the operator was busy dealing with more complicated tasks than his led him to try to handle the situations alone: had something very complicated, difficult, or confusing come up, he suggested, he might have preferred to trust this professional to handle it. The teleoperator in Nanak's vision was an expert resource for extraordinarily difficult or challenging situations, not simply an effector for routine maneuvers that are still beyond the capabilities of the autonomy alone. Passengers using their vehicles day-to-day would certainly have greater opportunity to become accustomed to teleoperation, and evaluate when it is helpful to have a remote vehicle manager involved in operations, but this passenger's comments suggest that the use-cases for human supervision are open to individual interpretation. And the presence of that supervisor brought a new social politics into the equation of driving: that of the value or sanctity of the individual's labor. Another participant suggested that the mere presence of a human supervisor somewhere in the system acted to prevent his own overriding of the vehicle. He reported an awkwardness around "taking away their job," a feeling that would not have been present had the system been a fully computerized one. The remote human, unlike the machine, still has a certain dignity, and one may feel the need to respect her time, skills, and execution of her tasks. Being in a supervised vehicle presents complicated questions about the social mores of intervening with the work of people located elsewhere, mores that are not yet set and therefore likely all the more awkward to negotiate for the first time.

But this awkwardness was apparently a mixed experience. On the one hand, this participant reported reluctance to interfere with the human-machine system of autonomy: "I don't know if I can" take over, he said in our interview, recapitulating his previous thought process, because "somebody else is in charge of my car." His affect, delivering these lines, evoked concern. He seemed troubled. But he also experienced what he described as "a little relaxation that happens" on seeing someone else in control of a situation. He phrased this relaxation as a general principle, a lay theory about concern and responsibility: obviously, someone else being responsible would make you feel at ease. But this lay theory did not hold universally. The status of the supervisor as a component in the system—what that supervisor was presumed to be there to do, and how much information he or she was presumed to have—seemed to have much to do with participants' varied concerns about their interactions. Joshua, a summer intern working on connected vehicle systems, trusted the operator more than he trusted himself: the sensors would be better than his eyes. He explained that he assumed that operator would have sensor feeds from multiple cars, and would therefore know more about the situation than one human's first-person view could ever show. This utopian human-machine system made him more comfortable than he would have been in a cab: it, unlike a cab driver, was "programmed" to keep him safe. His increased comfort, however, does not negate the potentially awkward aspects of now being under the authority of some remote and unknown person. And Joshua's comments cut against the grain of statements by many other passengers who wondered how a remote supervisor could ever react as competently as they could, with their own first-hand knowledge. For these passengers, contending with this remote human agency was uncomfortable and destabilizing, a new practice of negotiating conflicting desires (to take over) and responsibilities (am I allowed to take over?). These different views, and their different affects, suggest different assumptions about the technical capabilities of both vehicle and vehicle management center: Joshua was working on a project to collect vehicle

data from On-Board Diagnostics (OBDII) ports, and centralize it on a cloud data platform. His assumptions about connected vehicles and their capabilities are perhaps more reflective of his own work than the simulated drives he experienced. This exposes an important point about mental models of supervised operations: what passengers *believe* will be formative for their interactions with the system.

Interactions with remote vehicle supervision systems require passengers to remake assumptions about the individuated driver cocooned away from the rest of the world. Participants were called to reckon with their new interrelationship with another human being capable of controlling their vehicle. And this relationship could be an awkward one; for some it brought to attention the expertise and status of the remote operator: What sort of tasks ought she be called to attend to? Is it rude to preempt her labor? For some, supervisors seemed remote, in knowledge as well as location; for others they were more present and capable than someone actually on the scene. But all these questions of authority, comfort, trust, and jurisdiction are embedded not only in the issue of capability, but that of responsibility. The interjection of autonomy and a remote supervisor into the car changes the sociomaterial practices of driving responsibly. Driving does not remain the same when the driver's individual agency—albeit mediated and constrained by law and custom—is no longer wholly in charge. Old assumptions no longer hold. Who should do what, and whether new parts of the system have responsibility to us (or whether we have responsibilities to them) must be determined anew. And drivers express their experiences of figuring this out with an affect of concern and discomfort.

TRUSTING IN HUMANS AND MACHINES

The central irony of the development of automated systems is that, at least in some ways, the more automated the system is, the more interconnected it must be with vast networks of humans and machines outside the individual vehicle, which must be trusted to operate appropriately. The individual human in a truly manual vehicle can navigate the world. They cannot do this entirely autonomously—bound by social systems, by law and custom, by prior knowledge of the environment, by past experience and sensorimotor capability—but they can at least convincingly mime that autonomy. The autonomous vehicle must be bound and controlled by code, and so can never be so free. This means that passengers within are forced to contend with new networks of control: human supervisors can be directly compared to the computer systems delegated to perform the watching-over on a moment-by-moment basis. We asked our participants to trust this system, to leave it on as much as they felt comfortable. Though they were able at all times to take over and drive manually, none did unless the car was headed for one of the obstacles we had set up to provide reasons for human intervention. When participants encountered these situations, responses varied widely. Some took preemptive control to bring the vehicle to a stop and then turned autonomy back on; others took over only after the vehicle had been stopped for some time; and still others left the vehicle to its own devices throughout the entire situation. But leaving autonomy engaged was not a sign of complete trust. Both taking control, and monitoring the progress of the system while leaving it in control, are ways to moderate a distrust in its capabilities. And issues of trust were not limited to mechanical, operational parameters. What the system *knows* may be just as important as what it *does*. This trust has gradations, and treats humans and machines in different ways.

Participants had diverse feelings about placing trust in a human operator. Mark, an intern with the vehicle autonomy team, felt the remote supervisor, “in [his] book, could do no wrong.” Obviously a professional, this supervisor would be able to handle issues without difficulty. Doatea, who spent several years working in India where she was chauffeured around every day, recognized no meaningful difference between a driver in the car, and a supervisor outside of it. But many participants seemed less willing to trust a human than a machine. As Emily put it, she would rather trust software “that’s been created to make this work,” by “hundreds of engineers spending hundreds, or thousands of hours,” than trust a human of unknown skill and professionalism. Jean Loup, an intern with Renault and co-worker of Nanak’s, described that with a computer, “you trust software, security, encryption,” but how can you be sure you can trust the remote human? This sort of thinking was a common refrain, though most who felt this way came to see the situation more positively when they were informed that the supervisor was not “joysticking” the vehicle (taking direct control of the wheel and pedals from afar), but was instead just plotting a path for the autonomy to follow.

The standards for performance between human and machine could go either way: James would allow some “delta to [his] expectation” before intervening with a taxi driver, but supposed his tolerance was less here; Nate, when he found out a human error had caused him to go over a curb, was less forgiving than he would have been to the machine: “You could have done a better job! . . . You are a human, so that’s different.” But in any case, the automated safeguards that were operating at all times seemingly provided a reasonable basis for trust, as they meant the unknown vehicle manager could not, presumably, cause the passengers harm. Many passengers still had trouble conceptualizing why a human was important to the system at all, but felt safer knowing the autonomy still handled moment-by-moment decision making. This privileging of machinic reliability over human caprice is widely recognized, in various ways, across studies of information technologies. The 2016 revelations about Facebook’s trending topics (Nunez 2016), for example, dramatize the collision of algorithms’ putative mechanical objectivity and humans’ putative biases: it was shocking and controversial that these trends, supposedly representing major discussion topics on Facebook, were curated by human analysts rather than being generated by a presumably “neutral” computer model. This tendency toward Latourian disciplining and delegation—“never rely on undisciplined men, but always on safe delegated nonhumans” (Latour 1988, 305)—assumes that nonhumans *can* be made safe and dependable, moreso in the absence of human inputs. It is a belief system, not a statement about reality, which has more to do with cultural preconceptions about the properties of the organic (creative, capricious) and the machinic (predictable, dependable) than it does about their actual operation. Human involvement appears as risk in part because we are not accustomed to thinking about its ubiquity. The value of joint human-machine systems is difficult to parse from a perspective that trusts the reified technical object, and does not attend to the continued human effort that is *always* required, in some form, to get such systems to behave properly. When joint-ness is seen as a weakness, rather than a strength, trust in the system decreases with human involvement.

That is not to say that our participants were ignorant. Far from it. The virtues of humans and machines are up for debate, and we did not select for expertise in human-machine systems engineering. However, our participants were measured in their preferences, and subtle in their critiques. Charlize explained to us: “I think the remote supervisor does make

me more confident in it [the car], but what if they aren't paying attention?" In this view, the unreliability of algorithmic responses can be compensated for by the joint involvement of people. But those people remain at least potentially untrustworthy. Many participants expressed such lay theories about trust and its distribution. A few made interesting suggestions about how to heighten a feeling of trust: Jesse, a visitor from another Nissan lab, wanted to know "the name of [his] guardian angel, even if [the system] lied to [him]." The simple touch of seeing a human name would have made him feel better, more connected to the person partially in control of his fate. Another participant, Marianne, stated a preference for an "Uber-like" star rating of the vehicle supervisor, so the passenger could have a sense for the skill and training that the supervisor possessed. It is unclear how a passenger would respond to an unrated or low-rated operator (one assumes not well). But these comments, taken together, seem to suggest that human-ness is not a one-way street: it does not monotonically decrease trust.

Putting a more human face on the supervisor might help some people get comfortable with a remote human role in vehicle operations. The skill, professionalism, and training of remote supervisors, and how the vehicle users are made aware of these qualities, may be critical to the acceptance of teleoperation as part of a new practice of driving. The association of remote teleoperators with call-center customer support representatives, explicitly made by several passengers during our interviews, invoked serious doubts about the capabilities and motivations of the human components in the vehicle management system. Emphasizing an appropriately professional work culture among teleoperators might go a long way to addressing these types of concerns. These findings should not be that much of a surprise, in the context of our prior discussion, as they lead back to the issue of responsibility, and the social contract between driver and passengers. The unknown and remote person cannot be trusted because their relationship as a responsible party is not clear. They cannot be held to account. Making that supervisor somehow known starts to engage them again with preexisting expectations for delivering care—the apex of that responsibility being that of one family member to another.

While the operational integrity of vehicle managers might be more positively framed by association with air-traffic control than with customer support, issues of trust that fall outside of the operational, into realms of security and privacy, may be more difficult to solve. While some passengers felt that a human operator made the system "friendlier," this was generally interpreted as coming at an inherent cost to privacy. Recognition that other services like OnStar already involve vehicle tracking made the teleoperator more palatable to Jean Loup. But he still wanted to be able to turn supervision off in order to drive unmonitored. Ling, a design intern working on vehicle interfaces, expressed in his interview that if there were a human supervisor with knowledge of his location, he would feel as if someone were "stalking" him. His use of this particular term conveys a personalized dimension to this kind of monitoring. *Surveillance* is an impersonal thing, doubly so the notion of "mass surveillance." But *stalking* is personal, human-to-human, a direct invasion of expectations of privacy. Talking to a virtual agent instead of a person would, Ling suggested, solve this affective problem for him, even if the data collected by the system was the same. But if there were ultimately a human pulling the strings of that agent, some of his privacy concerns would remain. And as Marianne, a service designer, was quick to point out, it would be inappropriate to hide the level of human involvement. People have a right to "know what is real" behind the operation of the system, she urged. While a more human

face to remote vehicle operations seems likely to help some people trust those involved in vehicle control, it may make the privacy risks more obvious to others. And at the heart of all these comments lies a paradox worthy of further study: if the *information* collected is the same, why did participants' lay theories consistently lead them to be more concerned about a human than a machine having access to that information? It is not necessarily true that the engagement of humans really makes one's information more vulnerable than if data is only being mined by automatic scripts! This is a complicated question with many possible answers depending on how data is stored and used. But if these participants' responses are indicative of a generally held perception, they represent a challenge to the involvement of a human operator in the supervision of vehicles on the road.

The issue of how human the operator should seem is therefore a tricky one. Having the supervisors speak in their own voice could make them more human, but participants were not convinced they would enjoy that kind of experience. Ameila, a developer working on connected vehicles, expressed this as pushing up against the notion of the car as a private space, "my personal space"—which recalls responses to the telephone more generally, in its early days, when it was a site of potential transgression by outsiders into the sanctity of the domestic sphere (Marvin 1990, 64, 85). Many passengers preferred the idea of a Virtual Personal Assistant (VPA), or a human who spoke in the consistent voice of a VPA, to reduce the strangeness of an unknown person taking over their car's aural space. One suggested that such a computerized voice would allow her to develop a relationship with her vehicle, rather than feeling like others kept intervening, entering the private space of the vehicle cabin. But the idea of a VPA does not work for everyone—notwithstanding that VPAs often work better in theory than they do in practice. Ameila reported that she would still prefer a conversation with a person as opposed to one with a machine that tries to "translate what you say" and "Google the answers, Googles the wrong thing," etc. She has had bad experiences with Siri and Google Now not being able to understand her voice, and being otherwise unreliable even when they are able to correctly interpret her words. While technical progress may ease some voice interface issues, the operation of a motor vehicle is a sufficiently high-stress area that any communicative difficulties may be exceedingly detrimental to the passenger's experience. Moderating privacy concerns or feelings of unease by the use of a computerized voice may be a useful technique, but even its supporters agreed it risks treading into ethically worrisome waters if the role of the human being is too obscured. The imposition of unbidden voices on the personal sphere of the cabin is exposed here as a potentially fraught enterprise.

This leads to the third sense of our autonomy, and its opposite, the further imbrication of human action and its dependence on new technical systems. For humans to work, machines must work too. For automated cars, and particularly teleoperation systems, to work, data must flow out to remote locations, to be operated on by unknown combinations of humans and machines. Commands and queries must flow back, and become part of a new sociomaterial space for the vehicle's passengers. The autonomy of the human driver is complicated and impinged upon by these networks, which make possible the autonomy of the machine. What information a passenger is willing to divulge likely depends on a wide variety of factors—akin to those we have seen previously, related to safety and risk: Who is in the car? Where is the vehicle going? What is the purpose of the trip? The threat of the remote and unaccountable observer is very present for these commentators, though it is curious that this threat seems to be more alive in humans than machines. This sense of

threat goes hand-in-hand with the privileging of computational rules over bureaucratic structures of responsibility: the system has been programmed to “keep me safe,” but the cab driver, whose performance is still monitored, managed, and constrained by social, legal, and bureaucratic systems, has somehow not. Reckoning with these new sources of trust and distrust will be a key part of learning to live with automated cars in the real world.

CONCLUSION: AUTONOMOUS DRIVING AS A SOCIAL PRACTICE

The autonomous car that participants experienced is not *autonomous* in the most obvious sense: naively free from human engagement. It is and must be an arrangement of humans and machines working together, with all the challenges that implies (Bainbridge 1997; Casner, Hutchins and Norman 2015). As machines threaten to exhibit their true autonomy, the freedom and indeed propensity to err, to do things we do not want them to do, they are always at the boundary of struggles between human wills and material obduracy, mediated through systems of control that are neither clearly human or clearly machine: they are sociomaterial. The autonomies that were involved in this delicate dance were not restricted to those of a machine operating on its own. Our participants encountered aspects of machine autonomy that were experientially new to them in this context—assumption of risk, remote management, data collection—that they had to square with their own positions: as individuals responsible to others through their embodied skills; as independent decision-makers free from oversight; and as drivers valuing safety, personal space, data, and privacy both for themselves and others in their vehicles. The latent visions of driving that are explored here are not the same as driving today, nor are they the same as each other. Different participants’ lay theories about trust and responsibility colored their responses to the system that they experienced. The driver who no longer controls the car does not simply sit there with mind, hand, and feet newly freed; these all become occupied by new tasks, new potentials, and new concerns. Can I take over now? Should I? Do I need to brace myself? Is it safe for me to let the system run? What *is* that system anyway?

These details could not have been seen so clearly without putting participants in a position where the autonomy theater that they experienced was convincing enough to destabilize their notions of their own role. But without some theater, it could not have been seen at all. Our hybrid ethnographic-experiment reinterpreted the traditional tools of a laboratory user-study through an ethnographic lens in order to combine the unique strengths and perspectives of these two fields of endeavor. To do certain kinds of research, we need new vantage points. We need to be able to produce new interactions, knowing full well that what is produced is partly artificial and must be approached with care to the claims that can be made. Such issues are not new to design anthropology (Gunn, Otto and Smith 2013) nor to anthropology as a whole, as it has long examined people’s other worldly and future-oriented hopes and expectations.

We see simulation as a viable means to produce new ethnographic knowledge, though we recognize as others have in various contexts that the knowledge and experience produced by simulation is not going to be quite the same as the “real world” (e.g. Turkle 2009). All speculations are in a sense contrived, but simulation provides one way to get a glimpse into a possible future. Participants in simulated interactions get to experience, even if only briefly, a different set of sociomaterial relations. And these experiences can then be investigated with other methods of elicitation. We resist the idea that findings can be wholly prescriptive, that

they can tell us how to produce new systems whole cloth. But they highlight new questions, new lacunae that require further investigation. And these experiences can open up the participants themselves to new ideas: James, who hadn't thought that a supervisor would make him feel uncomfortable about taking over; or Joshua, whose assumptions about the supervisor's knowledge were challenged by his experience, have new ways to think about human autonomy in their own work as developers.

We do not find it sufficient for our purposes to engage in only this kind of research. An anthropological investigation into a speculative future, without sufficient grounding in the present, is at risk of becoming unmoored from any semblance of reality; and applying the fruits of this investigation in a principled way requires careful explorations of its foundations. It is therefore important to us that our experiments in simulation are only part of a multifaceted study of road-use behavior, from focused roadway studies using close readings of video data, to more traditional industry anthropology fieldwork within transit organizations, which in their own ways inform our treatment of the questions here. If the practice of ethnography is of a sort of apprenticeship into existing culture, this speculative ethnography is apprenticeship into new kinds of destabilization. But in our joint roles as social scientists, developers of AV technologies, and designers interested in producing a better future, we sometimes encounter questions to which the world "out there" is incapable of providing all the necessary insight. At least to open questions, if not to close them, simulation as a playground for experiences can provide access to new sociomaterial practices that can then bound and shape development.

In light of this, we end with some of the questions opened by our investigation. Key among the questions for developing socially acceptable autonomous vehicle systems is this: Whose autonomy, or what autonomy, matters? Does a loss of autonomy from supervision always accompany a new freedom from labor? Or how would this be balanced in practice? Do some of these autonomies impose limits on how the technology operates, which might well change the functioning of the resulting systems and their effects on things like accident rates? The answers to these questions are not obvious. Fundamental values are being negotiated here, about what aspects of technology are important. An intervention that favors certain aspects will look very different than one that favors others. And what new sociomaterial practices would emerge out of these varied interventions? We do not yet know. But as designers of new technological systems, we need to keep these changes to practice in the forefront of our minds. Thinking in this way about driving practice opens up the space for different interventions, besides the obvious technical ones of better sensors, better algorithms, better physical infrastructures. Engineers, in our experience, too easily assume that these alone will make AVs possible, pleasurable, and valuable. But we suggest that much of the problem and promise of automation lies outside the technical frame, in the social realm. Driving is a cultural practice. Mobility is not just about getting from A to B, but about when and how and why one moves. The sociomaterial lens applied here is a call for further engagement with the social and cultural dimensions of transportation systems, as these systems inevitably affect essentially everyone in some way, through direct use or through coexistence in shared space. And these people are remade—human autonomies are remade—by our machine interventions. Not causing accidents is not sufficient. We, both as developers and ethnographers of technology, must attend to the ways that practices will change, and the shifts in the personal and cultural significance of meaningful action that will follow.

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NOTES

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1. The authors recognize that *autonomy* is a fraught term, often used very loosely in talking about robotic systems. In prior work, Stayton has preferred to use “automated,” which does not imply the same complete disjunction from human control. But *autonomous* (or, colloquially, driverless or self-driving) remains a common way to describe highly automated vehicles. Our point in this paper is not to argue for whether or not it is right to refer to these vehicles as autonomous vehicles. Instead, we take a different approach and ask: since people *do* apply this term, what does it mean to them when they do?

2. This is not just an attempt to make the point that automation is always partial. Nor do we wish to sanctify “driving” as some sort of ineffable practice. Our point is simply that automation is not the movement of particular sections of an activity from one bin (the human one) into another (the machine one). It ends up reshaping, even if subtly, the entire activity, and thereby changes its meanings to those who engage in it and interact with it.

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PAPER SESSION 2

Shifting the Discipline

Curators: JULIA HAINES, Google & MICHAEL POWELL, Shook Kelley

Members of the EPIC community often find themselves working on projects in unique situations. In order to achieve their goals and consider the larger vision or scope of their work, ethnographers have explored new ways of thinking and working. The papers in this session use these experiences as an opportunity to consider ways of changing or shifting ethnographic praxis.

The authors ask us to consider recasting our practices and rethinking our traditional perspectives. Some offer different approaches to conceptualize ethnographic research. This may require incorporating other disciplines into ethnographic work, employing new conceptual or tangible tools or even exploring other dimensions in our approach. These papers also disrupt simple definitions of the ethnographer and ethnography, not to mention the accepted boundaries between ethnographers and adjacent disciplines. Some consider the tools of design to recontextualize their object of study or to allow new objects to emerge. Others insist on exploring an even wider range of potential inputs.

As a result, in these papers we see ethnographers exploring new pathways for intervention with the organizations they work for, with the potential to imagine new types of strategic partnerships and relationship forms.

Papers 2 – Shifting the Disciplines

Situated: Reconsidering Context in the Creation and Interpretation of Design Fictions

MARTA CUCIUREAN-ZAPAN
IDEO

Design fiction and ethnographic methods strengthen each other by creating a creative but rigorous scaffolding for interrogating expectations and reactions to the future. Design fiction can influence the activities, people, and places in which ethnography is done, and ethnography can create design fictions. Viewers and creators populate design fictions with their own past, present, and hoped for future. The intersection of these methods push ethnography beyond the edges of its thoughtful consideration of the present moment, in order to begin investigating the future.

INTRODUCTION

The uncertainties of the future confront communities, organizations, and businesses. Since the 1960s, they have turned to studying the future with the hope of effecting change by acting towards preferred outcomes. Expanding a time horizon is a perspective shift used to spur action on pressing issues such as technological change and resource shortages. Futurists are fond of Eliel Saarinen's reminder that one should, "Always design a thing by considering it in its next larger context—a chair in a room, a room in a house, a house in an environment, an environment in a city plan," (Keller 2015). The future and the past offer the next larger context to the present. By contrasting the environment, behaviors, and attitudes of the design fiction with those of the real world it is revealed in, project themes and goals are re-contextualized and therefore better understood. For applied professionals, the fusion of futures thinking and ethnography also offers the tacit allure of growing the scope and impact of the design process beyond the typical product or service development cycle.

Future oriented approaches are increasingly branded and marketed by design firms and other agencies.¹ The US military and think tanks like the RAND corporation began to deploy these methods at the mid-century (Bell 1996). Shell Oil used scenario planning in the 1970s to evaluate long term decisions. "The scenario planning exercise led Shell to adjust its business management practices to hedge against the potential for high oil prices by increasing the efficiency of its refining and shipping operations" (Peterson, G. D. et al. 2003: 363). The company's performance during the oil crisis endorsed the method in corporate settings. In the 1980s and 90s, scholars and designers formalized anticipatory anthropology and futures studies methodologies. These included design fictions, the idea of "designing *with* stories, or within the world of a story" (Lindley, J. et al. 2014: 241). The value of futures perspectives is a call to action, and design fictions are the means by which to induce the first steps. Robert Textor, an anthropologist who pioneered the fusion of futures thinking and ethnography, argued that "Systematic anticipation can thus serve as a powerful means for

¹ As covered in industry-oriented online publications such as Fast Company and The Verge.

clarifying and prioritizing the values held by an individual, a community or a society” (Textor in Mead 2005: 20). However, literature indicates a need to theorize and populate with examples the intersection of ethnographic and future studies methods in applied settings.²

This paper argues that in order to diversify the design process, the perspectives of stakeholders should be compared and contrasted among themselves, as well as that of the internal world of the design fiction. Supporting examples include original research commissioned by clients and first-hand experience in a community workshop series. Textor reminds us that, "There are no future facts. There are only facts about the past or present that a researcher... regards as relevant to the future" (In Mead 2005: 19). The facts deemed relevant by viewers in these case studies, even if inconsistent or extraneous to the design fiction, are necessary and relevant to its application. Design fictions do not have to be interpreted as a standalone world. The real world context influences the interpretation and reception of the narrative. This can include aspects of the environment like the informal economy and condition of infrastructure, or the behaviors and attitudes for which participants were screened for. In other words, ethnographic methods recontextualize the scenario described by the design fiction artifacts. For example, exploring a resource short, population dense scenario in urban China allowed a turning inside out of the design fiction into the ethnographic present context. This allowed a team working on a mobility project to amplify signals of the future that were weak in the present. Analysis of team, client, and participant reactions led to insights and final recommendations.

Because ethnography treats context as an inductive and guiding source of knowledge, design fictions activate and are activated by ethnographic methods. The use of the methods in combination explores assumptions by highlighting differences and similarities in the context of the real and design fiction world, including in the surrounding environment, structural factors, and positionality of the researcher and participants. An ethnographic approach can be influenced at different phases by the creation, selection, and interpretation of design fiction. First, the design fiction can inform the questions and activities in a research plan, including participant and site selection. Second, ethnography can help frame and illustrate a range of design fictions. Granularity, texture, and stories from the field can be adapted into the design fiction and then interpreted back out. In this case, the design fiction is a time machine that represents present expectations and desires for the future. Third, the design fiction serves as a scaffolding for analysis and synthesis, through which to compare and contrast observations and interpretations among team members. It focuses interpretation efforts and insists on a question that must be acknowledged by the group.

OVERVIEW OF APPLIED FUTURE-ORIENTED APPROACHES

Design is a forward-looking and optimistic process, particularly when considered through a capitalist lens. Brown and Wyatt describe this as: “Design thinking—inherently optimistic, constructive, and experiential—addresses the needs of the people who will consume a product or service and the infrastructure that enables it” (2010). Incorporating futures perspectives in design ethnographies expands the scope of impact beyond typical product

² Lindley, J. et al. 2014 on design ethnography approaches and Greenman, A. et al. 2006 on an “ethnographic walking tour” to enhance foresight exercises.

cycle timeframes and avoids “tempocentrism” in resulting recommendations.³ In consulting and corporate strategy, companies seeking to establish multi-year visions have engendered an interest in forward-looking but predictive methods such as forecasting and trend research.⁴ Anticipatory ethnography provides an alternative to singular predictions by embedding the generative potential of multiple futures within organizational decision-making.

The design field’s focus on problem-solving assumes that market-based solutions can and will be found. Critical design, which emerged in the 1960s in relation to avant-garde art, began questioning practitioners’ relationship to their discipline and the larger economic system. Emerging out of this movement, speculative design holds that traditional design supports the status quo by introducing new products to resolve “‘problem’ of technological alienation” (Mitrović 2015). Practitioners like Mitrović believe that, “speculative design envisages and anticipates the future, at the same time helping us to understand and re-think the world of today.” The corporate adaptation of speculative design, which can represent market-neutral or market-agnostic worlds, provides an opportunity to examine how the methods express themselves in applied settings.

Design fictions are a type or subgenre of speculative design, often in the form of videos, installations, magazines, or other mediums, which imply an internally consistent world story. For example, the firm Superflux produced a video featuring lime green colored smart objects like a fork and a cane that illustrates how these objects might control the behavior of an elderly man (2015). The video implies the world that these objects belong to, as well as its social and political dimensions, without overtly explaining the designed objects and their function. In another example, the Near Future Laboratory produced their own version of an IKEA catalog. The catalog uses images and descriptions that reflect the economic and technological forces that inform the everyday by featuring “self-subscribing” products and services (ikea.nearfuturelaboratory.com). “While both design fiction and speculative design operate around the basis of some form of prototype, speculative design typically creates objects outside of a defined future context, and doesn’t include an accompanying narrative” (Dunne and Raby 2014 cited in medium.com). Futurist Bruce Sterling is a main proponent of design fictions as “diegetic prototypes,” primarily objects but even services and interactions that are taken for granted as functional and native to the world around them (slate.com). He cites the iPad-like object in *Space Odyssey 2001* as one of the best design fictions in a science fiction movie because, “You see an iPad in this movie and your response is not just, ‘Oh, what’s that’s that?’ But ‘That would be cool if it existed.’” A design fiction includes its own context: the environmental, behavioral, and attitudinal factors that impact the interaction between human and object or system. It allows us to wonder how the world might evolve from the present context to the one it portrays.

While speculative design combines commercial and artistic practice, futures perspectives have a similar mixed background of military and corporate strategy, social science, and other fields. Futures perspectives developed through applied approaches by the military and think tanks like the RAND corporation (Bell 1996). As described earlier, “In the early 1970s, Shell Oil used scenario policy planning to evaluate long-term decisions” (Peterson, G. D. et al. 2003: 363). Jim Dator, a political scientist at the forefront of developing future studies, describes it as a field that “is interested not in itself furthering any

³ Textor describes tempocentrism as akin to ethnocentrism, in which we take for granted the situations and values of our own time frame (2005:17).

⁴ See profile on Tellart in *The Verge*, an online tech-oriented publication (Chayka 2017).

particular view of the future, but rather in furthering both narrowly professional as well as broadly participative inquiry into the future” (1998). Others like Robert Textor merged future studies with anthropology through methods such as the Ethnographic Futures Research interview protocol, which focuses on participant expectations for optimistic, pessimistic, and probable scenarios of the future. “EFR aims to produce meaningful anticipations of the future grounded in a specific sociocultural context,” (Ketudat, S., & Textor, R. B. 1990). EPIC papers such as Lindley, J. et al. (2014) on “Anticipatory Ethnography” have considered “connecting the dots” between design ethnography and design fictions, though indicate a need for practical examples to advance the theory. These approaches are branded by design firms and other agencies, including in projects like the Museum of the Future in Dubai. “In Tellart’s imagined future, the UAE of 2050 has it covered. In the projection, Emirati scientists combine the genes of jellyfish with mangrove roots, one of nature’s best desalinators, to create an ‘organic filtration plant that allows you to produce drinkable water out of the ocean,’ Scappaticci explains” (The Verge 2017). Expanding a time horizon is a perspective shift used to increase awareness of pressing issues such as technological change and resource shortages.

Anthropology and future studies intersect at a desire to affect positive change. Textor argued that, “The proposal is made that an anticipatory dimension to anthropology should be developed for the purposes of increasing anthropology's capacity to: (1) explain sociocultural change, and (2) contribute to the making of effective proactive public policy” (1985). Hybrid techniques⁵ have shown potential to engage communities in conversation and action around the future. Lindley, J. et al. argue that “We believe design ethnography and design fiction can be configured to work together so that the problems of one are solved by the strengths of the other, and vice versa” (2014: 238). Past work describes these techniques as a catalyst for participatory conversation that can lead people to take action towards preferred outcomes. For example, Stuart Candy describes working on an installation with the University of Hawaii around the four future scenarios of Hawaii in 2050: “None of these was intended to be taken as either advocating or predicting a particular path; the aim was instead to promote a broadened sense of what the possibilities could be” (2008). The artifacts that design fictions produce – objects, sketches, and spaces – are the primary stimuli for discussion of the potential futures of a place, community, or topic.⁶ The AAA awards the Robert B Textor and Family Prize for Excellence in Anticipatory Anthropology.⁷ The hope is that this type of work will result in structural or individual change like policy decisions or consumption choices. For corporate organizations, design fictions can serve as a generative tool of design that also provide organizational benefits, such as cross-disciplinary collaboration and alignment on strategy.

INTERSECTING DESIGN FICTION AND ETHNOGRAPHIC METHODS

The benefits of integrating design fiction into an organization’s research and design toolkit

⁵ Including anticipatory anthropology, anticipatory ethnography and speculative design

⁶ At the launch of the speculative design major at the University of California, San Diego, Benjamin Bratton argues that these objects pose an alternative to the mainstream (2016).

⁷ “Such contributions will allow citizens, leaders and governments to make informed policy choices, and thereby improve their society's or community's chances for realizing preferred futures and avoiding unwanted ones.” (AAA website)

include minimizing organizational risks, catalyzing cross-disciplinary collaboration, and creating a more holistic understanding of the experience surrounding a potential product. Combined with futures perspectives, as in scenario planning or critical uncertainties exercises, the navigation of multiple potential futures is an input into organizational strategy decisions. These methods can account for tempocentrism by expanding to a time frame that encourages teams to think beyond the next product development cycle. Like speculative design, design fiction can spur discussion and action. To go back to the Hawaii 2050 event, Candy described that, “It is planned as a kickoff for a series of community discussions about what I and my futures colleagues describe as possible, probable and preferable futures for the islands, all of which should culminate in A Sustainability Plan for Hawaii” (2008).

Intersecting design fiction with ethnographic and qualitative research provides more specific benefits. First, defining what the team hopes to learn and how the design fiction relates to these goals begins the work of team alignment and rapport. Second, the design fictions and their artifacts function as boundary objects, allowing interpretation by different communities and introducing non-verbal questions that we may not know how to ask (Cooper-Wright 2012). Third, design fictions as a tool for participant feedback offers a defined means of input for the conversations design fictions claim to create. Fourth, the methods and tools of design fictions become a mode of inquiry in and of themselves. One can as easily explore an element of the design fiction with participants as the fiction itself. In other words, the scaffolding of the fiction is as generative as the self-contained artifact.

This paper focuses on ethnography with and around design fictions – the world around the concept or idea – as a process to generate and diversify design solutions. This stands in contrast to the high-production installations produced to communicate an organization vision (Chayka 2017). Previous work argues that situating a design fiction by providing the context that makes it a standalone and believable world is key to its interpretation. “A healthy design fiction ‘situates’ the viewer in a prospective future so they can envision it in a meaningful way” (Lindley, J. et al. 2014: 241). This paper responds that comparing and contrasting the real context of the viewer to that of the internal world of the design fiction is a relevant and effective means of interpretation. Contextual factors may include but are not limited to the environmental factors around the viewer, or their behaviors, attitudes, and demographic criteria. Differing perspectives among audiences – research participants, design team members, and clients – recontextualize the design fiction and generate additional insight and ideas. Unlike linear or even iterative product development, this process introduces multiplicity and branches within the development process that may mitigate risk by preparing the organization for multiple outcomes.

CASE STUDIES

This paper considers examples from three case studies to argue for a fusion of design ethnography and futures approaches which foregrounds context as a site of contestation by multiple perspectives. Two examples are on the topics of personal mobility and home kitchens, and use ethnographic methods such as in-context interviews, participant observation, and open-ended concept feedback. The third is a community-based workshop series on the social impact of augmented and virtual reality technologies. The creation and debate around the potential futures is examined, including the analysis and synthesis of these perspectives alongside the creation of the potential futures into actionable outcomes.

The case studies below represent three different ways in which speculative design has been adapted as a generative tool. By having the methods of design fictions become a site of discussion, production, and contestation, the design fiction itself is not the only provocation. Specifically, the world of the design fiction becomes a research tool, rather than a finished communication. Design fictions shift the uses of ethnography in several ways: 1) by influencing the questions, activities, and participants that are included in the project, 2) populating design fictions with stories and characters, 3) providing a prototype that serves as a tangible prompt around a key project theme, throughout research, analysis, and synthesis.

Concept Kitchen 2025

Concept Kitchen 2025 is a collaboration between IKEA, IDEO, and students from Lund and Eindhoven universities “to explore the social, technological, and demographic forces that will impact how we behave around food in 2025” (2015). Based on the students’ research into attitudes and perceptions around cooking and eating, concept products were built with guidance from IDEO designers. In 2015, a full-sized kitchen was built with IKEA, exhibited at the Salone Del Mobile in Milan and EXPO Milano (see Figure 1). The kitchen represents an assemblage of speculative design objects, but the collaging of products and the common themes across design principles can be argued to form a design fiction. The research process began with ethnographic interviews with participants such as utensil makers and sustainable architect, selected in order to glean insight into what the future of food, family, and home might bring. Secondary research included in the brief to students filled out STEEP-like details (social, technological, environmental, ecological, and political signals). Students then conducted individual and group explorations into topics such as food and water waste.

During the second phase, extreme users such as an arctic explorer and insect diet proponent helped explore the changing relationships with food. In combination with observation and in-context interviews, boundary objects focused discussion on key project themes such as avoiding waste. This primary research, combined with trends and drivers, helped the team design with the implications of the future in mind. For example, what happens when drones make shopping easy and delivery almost instantaneous? (See Figure 2 induction cooling shelf, which creates visible storage to encourages the preparation of fresh food). The students’ ideas were synthesized into principles that structured the final kitchen, such as Mindful Design: “Crucial to the success of the project was preserving the tactile creative pleasure of the kitchen. Technology could easily make the space feel robotic and sterile, but this project was guided by the need to use tech to enhance the kitchen’s warmth.”

The resulting exhibit and the interactions it implied was a “tangible communication of the behaviors of the future,” in the words of one of the IKEA team members. An IDEO designer described how having subtle behavior changes come across in an exhibition was particularly challenging. For example, “The Mindful Sink pushes us to be more conscious of our water consumption with a basin that pivots left and right. It must be tipped to one side to drain toxic, or ‘black’ water, and the other for safe ‘grey’ water, which can be filtered and used in a dishwasher or as nourishment for the cooking herbs that grow above the sink” (see Figure 3.) Bleeker writes that, “A narrative that focuses too much on the technological gadgetry quickly loses its critical value by no longer providing the provocations that design fiction can offer” (2009: 27 cited in Levine 2016). The Concept Kitchen 2025, its name

recalling concept cars, some of the original speculative design objects, lives closer to a design fiction by uniting the concepts through human centered but future oriented design principles such as Mindful Design.



Figure 1. Concept Kitchen 2025 website imagery



Figure 2. Concept Kitchen 2025 induction cold storage concept



Figure 3. Mindful Sink concept

Augmented Realities Workshops

The second example is a series of workshops with design and social impact community members in Chicago, which pivoted around “critical uncertainties” and visual prompts in order to have participants create their own design fictions. The workshop asked participants questions to probe on the potential of augmenting social impact through VR / AR / MR technology. In order to situate the technology in social, economic, or other contextual factors, a 2x2 was drawn around the critical uncertainties selected. The first critical uncertainty was whether individual or collective action is key, and the second if technology becomes more immersive or more augmenting of the real world. A demo of Google Tiltbrush was available so that participants could experience the technology first-hand. Prompts in the form of images and a set of cards with emotions and activities were made available to the group (see Figures 4 and 5). After small group activities, a facilitated conversation took place. Key questions surfaced included:

- How might experiences of different bodies and genders inform social impact work?
- How might experiences that substitute for the real address or exacerbate inequality? e.g. VR travel for those who can’t afford it in real life
- When and how does the experience begin and end? Why does it matter?

The participants were given the raw materials to form a design fiction, and began taking the first steps in delineating those worlds. Ideas included time limits and immersion rooms that would help future users control the amount of spent plugged in. These got as detailed as particular interactions regarding how one begins a non-gendered interaction in a VR / AR / MR experience, by perhaps molding one’s own body out of a clay-like substance. By giving participants with related work and life experience the elements of a design fiction – technical as well as social contexts, immersive prompts, and a space to debate – new forms of the technology began taking shape based on the issues these worlds would confront. The context of their lives as designers and activists was funneled into these potential futures.



Figure 4. Augmented Realities workshop image

replace	sadden	excite	amuse
confuse	shake	globalize	localize
remember	attach	mark	store

Figure 5. Augmented Realities workshop cards as prompts

While the Augmented Realities workshop was not an ethnographic research interaction, it does suggest other uses of the method in more structured projects. Having the raw materials of a design fiction available on hand, in this case VR, images, and card prompts, encourages investment by the group in their feedback. During research, these materials create a tangible reminder of what we need to learn, and encourage the team to engage in framing the problem space. Like Concept Kitchen above and the personal mobility case study below, there are also implications for participant and site selection. We can consider the environmental, behavioral, demographic, or other criteria that signals indicate may play a significant role in future worlds. Finally, people populate design fictions with their own past, present, and hoped for future. These methods push ethnography beyond its thoughtful consideration of the present moment, in order to begin investigating the future.

The Future of Personal Mobility

The third example demonstrates the benefits of this approach in a multi-phase program, in which the design fictions were able to inform not only prompts but also participant and site selection. This is the turning inside out of the context – the story of the design fiction into the stories of the real world - that allows the design fiction to be a tool for inquiry as well as a final product. This project dealt with personal mobility within a 15-year time horizon. Methods were informed by an anticipatory anthropology protocol, elements of scenario planning, speculative design, and ethnographic futures research (based on Textor's work). The first phase used secondary and ethnographic research to create a set of four potential futures around mobility. For each of these futures, an animated narrative around a central character described their mobility story. For example, one narrative followed the lives of a family in a resource short, informal settlements. Communal bonds and technological changes like cryptocurrency and 3D printing allowed for the adaptation of community resources to move goods, create work, and stimulate the informal economy. This design fiction included the product ecosystem, but did not highlight it as the central element.



Figure 6. Two cardboard circles with removable stars on them that represent a user's profile rank based on data such as social media, job reviews, and operation history. Higher rank gives you more access to tools, job offers, and other rewards. In the activity, the participant was asked to share their status with the interviewer, and in what situations they would or would not do so.

The four potential futures were then used to select locations and participants for additional ethnographic research. Essentially, the team scanned the world for a divergent set of environments, behaviors, and attitudes highlighted in the design fictions. The design fictions were also used as prompts in the field, particularly with subject matter experts. Informed by Textor's EFR protocol, discussion questions included participants' reactions to the fictions – the optimistic, pessimistic, and likely implications of such a future. For example, Nairobi represented a location with a high rate of informal settlements and informal economy. Infrastructure barriers encouraged technological leapfrogging like mobile payments, the design fiction turned inside out into a best guess current context. The overarching narrative, and ideas linked with these worlds, allowed participants to project

their reaction to the underlying assumptions that informed the idea. On the surface, this looked and sounded like concept feedback. In the background, this allowed the team to tangibly explore the assumptions of the design fictions. Opportunity areas for the long-term emerged, as well as near-term designs representing the first step in these directions.

IMPLICATIONS

Looking across these case studies, implications emerge for the creation and interrogation of design fictions as a qualitative research tool. Rather than a finished provocation expressing the outcomes of a process, making and sharing a design fiction can be a valuable tool for generating insight and ideas. In particular, design fictions and ethnographic methodology shape each other through 1) influencing the selection of research sites and participants with the expertise and experience that provide analogies to the world of the design fiction, 2) using ethnography as a source to create design fictions, 3) introducing an ethnographic approach to analysis by comparing and contrasting the reactions of different viewers who co-create the design fiction, and 4) instilling branching, tension, and contradiction into the design process (as opposed to linear or even iterative processes).

The first productive intersection in these projects came from using elements of the design fiction to select locations and participants for ethnographic research, in order to respond to the challenge of researching future implications in the present context. In the language of futures thinking, this helped amplify the signals of the future that may be weak in the present, whether those signals take the form of technologies like cryptocurrency, attitudes around sharing and self-sufficiency, or a fragmented geopolitical system. The mobility project was able to investigate the assumptions of the design fictions through the context of participants' experiences. For example, this included finding subject matter experts working in relevant contexts, such as fintech in Kenya and energy in Korea. The team also drew on the context of participants' lives to explore the shape mobility might take. For example, shipping and delivery in Seoul, the capital city of Korea, a country recognized for infrastructure investments and high R&D spending. For the Augmented Realities workshop, participants with a background in social impact were invited for the expertise they had based on the context of their work. By reflecting on images and a set of cards listing emotions and activities, they began to infuse the space around the technology with narratives from their own lives. Concept Kitchen 2025 did not fully explore this territory, but revisiting the project might suggest setting up the kitchen in contexts suggested by the themes it explored, such as mindful consumption and multipurpose environments. For example, installing it in a co-op, utopian community, or dormitory and letting residents interact with it there. An EFR-oriented discussion guide could explore its applications: what would people do, store, prepare, and eat in this space? Who would be with them? What are the implications, benefits, or drawbacks of this speculative object assemblage in comparison to how they currently do things? By drawing on the contexts of selected people in selected environments, the narrative is catalyzed as though an additional character has arrived.

Ethnography is also a rich source for creating and populating the narrative of a design fiction. For example, in Concept Kitchen 2025 the student's and participants' aversion to food waste highlighted an emotion centered benefit of just-in-time and on-demand delivery by drones. Stories of political and economic instability in the mobility project played a role in giving the background of self-sufficient adaptations in one of the

future worlds. This made the use of technology such as 3D printing self-evident, rather than the center of the narrative. The creation of the design fictions, telling the story of the world and why people behave the way they do, incidentally turned out to be a powerful tool for analysis. Rethinking patterns or contradictions as a person navigating them in that world helped sensemaking as much as identifying themes and experience mapping.

Speculative design practice and futures perspectives share the hope of provoking people to action. At the intersection of design fiction as a subgenre and applied ethnographic methods, comparing and contrasting individual reactions is a source of analysis and growth for the project. Lindley, J. et al. (2014) suggest studying the process, the audience, or the content of a design fiction. Following their suggestions, the team is part of the process of creating the design fiction. The audience includes other team members, research participants, and the client. During the Augmented Realities workshop, debate arose around whether replicating travel experiences for low income communities who otherwise couldn't afford to travel would alleviate or exacerbate inequality. How would status, such as the social capital of having travelled to an exotic locale, translate to a virtual experience of a place? Is travel or movement in general a right or benefit? Would proposing a virtual alternative treat a symptom, rather than a cause, of economic and social inequality? Would this technology act as an opiate in a future world? Depending on their own class, race, and gender background, participants debated each side. In a next iteration, the values drawn from the present context, could inform a more preferable design fiction. During the mobility project, the design fictions assumed a particular role for the client's product ecosystem. The narrative form allowed an exploration of the team members' personal and professional history: what did they consider the socioeconomic class of their audience in comparison to regional demographic figures? Was this who they wanted to reach in the future and why? The animated, story-based narrative of a future user created just enough distance between the current state and future directions for these conversations. By comparing and contrasting the reactions of different creators and viewers of the design fiction, the inconsistencies and contradictions among their present contexts emerge. Whether a design fiction seems inevitable, preposterous, or desirable in the viewers' eyes is as useful to a project team as the internal consistencies of the design fiction.

Design fictions encourage multiple viewpoints in their creation and interpretations. The openness of the form invites exploration and experimentation. In the projects above, teams co-created design fictions in the mobility project and the Concept Kitchen work. This required a consensus around what moments and themes were important to highlight in the worlds of each projects. The narrative form provides an alternative to analysis and synthesis methods such as pattern recognition, affinity mapping, and customer journeys. In the mobility project, having to write the narratives forced the team to consider what the most important elements were, what tone to take, and the background context such as social or economic signals. In the Concept Kitchen project, individual explorations by the students were a source of information for synthesis along with the primary research. The explorations revealed additional knowledge. For example, the Mindful Sink (Figure 3) offered different interactions to control intensity and temperature of faucet water flow. Design fictions used to illustrate multiple potential futures also provide a framework for analogous research done for inspiration, as well as multiple types of data like primary and secondary research and client documents. In applied settings such as product development, it can introduce branches in the design process. For example, self-sufficiency may mean a product that 3D

prints its own parts and books maintenance appointments in one world and one that locates gig jobs for the user based on location in another. Varying interpretations inform analysis and synthesis, including which design directions to pursue.

The intersection of design fiction and ethnographic methods has limitations, primarily around subjectivity and strategy. Because the design fictions emerge from the team's choices and fascinations, they are likely to include bias and assumptions that should be stated and accounted for during the interview and interpretation process. The design fictions should not be conflated with the strategy, rather the strategy emerges from the organization's negotiating amongst multiple potential futures (Stuart Candy, personal communication). Finally, participant and site selection must be refined so that participant's experience and expertise allows them to meaningfully absorb and react to the content of the design fiction. For example, if a narrative includes on the effects of AI the participant must be familiar with or prompted with additional content within or alongside the design fiction so they can respond to the positive, negative, and likely implications of the fiction.

CONCLUSION

Design fictions could become a ubiquitous research tool beyond provocations or high fidelity deliverables of a future vision. By definition fictional, their openness invites creation, interpretation, and discussion. Design fiction and ethnographic methods together can push and strengthen each other by creating a creative but rigorous scaffolding for interrogating expectations and reactions to the future. Design fiction can influence the activities, people, and places in which ethnography is done, and ethnography can create design fictions. While a design fiction depends on a self-contained world that makes the products, services, and interactions featured recede to allow a viewer's contemplation of that world, its connection to present context is relevant and useful for the applied design process. Drawing connections and comparisons between the context of the design fiction world and that of the creator, viewer, or participant allows ethnography to generate new knowledge and bridge the gap between interrogating the future from the present.

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Papers 2 – Shifting the Disciplines

Towards Multi-Dimensional Ethnography

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Google, Inc.

In this paper, I argue for the value of multi-dimensional ethnography. I explore the potential for ethnography to venture beyond sites, into different dimensions. As an example of work moving in this direction, I present a new approach, dubbed TRACES, which emphasizes the assemblages that constitute our lives, interweaving digital, embodied, and internal experiences. Various data streams and sources provide different vantage points for analysis and synthesis. I illustrate how we have used these to gain greater insight into the human lives we study, with different data sources providing different perspectives on a world, then delve into our use of tools, data sources, and methods from other traditions and other fields, which, combined, give us not only a more holistic picture, but a truer one, which refutes the false dichotomy of the digital and the real. I argue that we must continue to adapt and extend ethnography today into such spaces, and that reformulating the sites of ethnography as dimensions enables us to envision future subjects and objects of study in different ways.

INTRODUCTION: A CALL FOR MULTI-DIMENSIONAL ETHNOGRAPHY

The spaces we study are changing. At EPIC 2016, a conversation arose around the “flatness of the world” in current ethnography. Some EPIC attendees pondered whether ethnographic work is less exciting nowadays, because often our participants are staring at “little screens,” thus rendering our work less experiential, less action-filled. The assumption was that we, as ethnographers, only study the embodied interaction with such a device, with no insight into the world of that interaction happening beyond. Counter to this perspective, I argue that not only is the world more action-filled with the extensions made possible by the little screens of our digital worlds, but it makes our work that much more exciting because it adds dimensions of exploration and understanding not possible before-- richer perspectives, and new opportunities for extending our practice.

The notion I present of multi-dimensional ethnography builds upon Marcus’s arguments decades ago around the need for multi-sited ethnography. Much as he argued “why this locale, rather than another” (Marcus, 1995), I argue that the embodied, physical dimension need not be the privileged one. Experiential spaces are not always physical places; they are also virtual, ephemeral. The notion of dimensions allows us to consider these spaces. And notably, while accounting for spaces is the primary way in which the word dimension is used, one of its less frequently used meanings is: “the elements or factors making up a complete personality or entity¹.” So, by taking a multi-dimensional perspective, we take into consideration both a variety of experiential spaces and how those spaces are integrated into the lives of those we study. Accounting for multiple dimensions of experience and utilizing different data sources provide us with different vantage points and a richer picture. And, as I will delve into later, it allows us to explore human experience and action while also accounting for machine agency and action.

There is a rich tradition of work that explores these realms, including Hine’s (2000) research on virtual ethnography, Nardi’s (2010) digital ethnography, Geiger and Ribes’s

(2011) approach vis-à-vis trace ethnography, and other work on cyberethnography, ethnomining, etc. I rely on, and aim to build upon these approaches in this work, also integrating traditions, data streams, and methods from other fields and using a variety of tools, such as Paco (Evans, 2016). I present this approach, which is manifest in a series of studies dubbed TRACES. This approach has allowed my colleagues and I to investigate our ever-evolving and creative assembly of a life through engagements with constellations of devices and apps, services and agents across different dimensions. Combining these dimensions and different streams of data has provided us with insights we could not have achieved with other methods or singular approaches. Practically, this has helped us to understand the assemblages that constitute our lives and given us a richer understanding. Philosophically, I believe it has moved us toward a reconceptualization of who and what we study.

As Boellstorff (2016) and many others have noted, both the digital and the embodied are “real”; separating them is a false dichotomy. Multi-dimensional ethnography provides us not only with a richer picture, but a truer one. Resituating subject-object across dimensions also highlights the agency of machine systems as social actors. In continuing to adapt and extend ethnography for the spaces and experiences we study today, we need to consider the significance of such actors. Reformulating the sites of ethnography to dimensions enables us to envision future subjects and objects of study in a different way. For instance, what would an ethnography focused on an AI perspective look like, as opposed to taking a human user perspective? It is not hard to imagine that in the future, we could reformulate the subjects and objects of study in ethnographic praxis in the technology industry to conduct research not just on the experiences of people interacting with systems, but on the experiences of intelligent systems interacting with people. What new insights would this approach glean? What assumptions would it expose? In the sections that follow, I provide an overview of ethnographic approaches that this work builds upon, highlight how we are thinking about and conducting this type of work in practice, and then explore the theoretical and philosophical implications of such an approach.

PRIOR APPROACHES TO INCORPORATING OTHER DIMENSIONS

The notion of exploring the digital, alongside the embodied is not new. Immersing ourselves in the media world of those we study has been done for years. Since the advent of the World Wide Web in the 1990’s, ethnographers have been looking to digital sources of data and digital aspects of people’s lives. As Hsu (2014) explores in her work on digital ethnography, there have been a whole host of researchers who have brought the digital into focus in their work. As she notes, most have either focused on the role of digital media in today’s world, conducted “virtual ethnography” in digital social environments, or considered digital methods or tools to extend participant observation. I highlight a number of approaches that have considered a focus on these areas in one way or another—either as a subject of research, a site of research, or as a tool or method of data gathering (Figure 1). These are all important topics and useful approaches, but we must continue to expand on them as we move into an age with even greater technological capabilities and pervasiveness. My aim is to build upon these approaches by focusing on dimensional qualities and illustrate how we are attempting to surface such through the TRACES methodological approach.

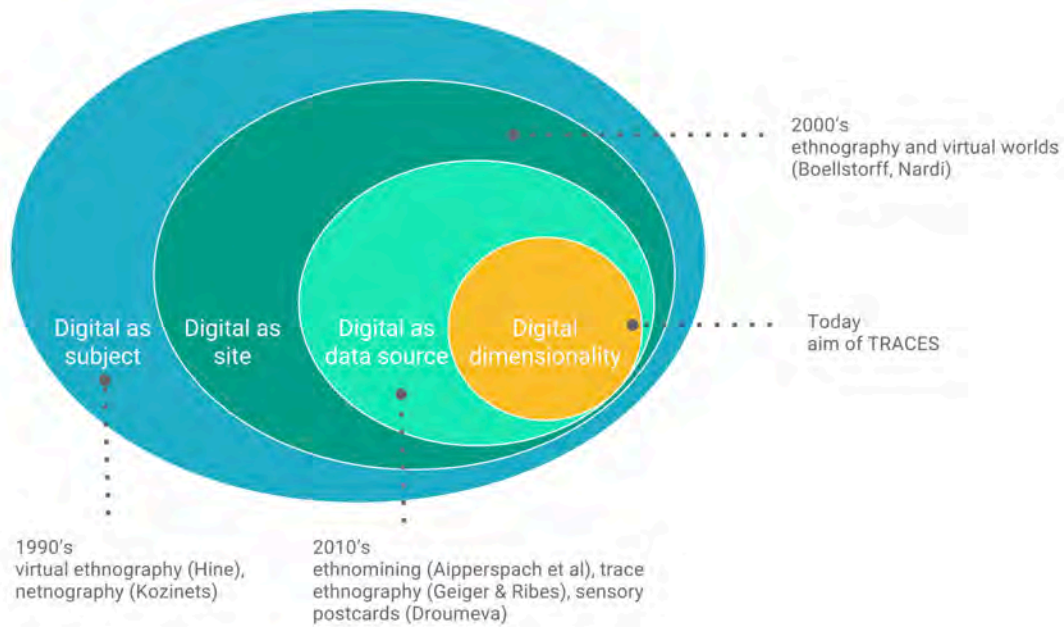


Figure 1. Approaches to digital ethnography over time.

In the first vein are approaches like Christine Hine’s (2000) virtual ethnography and Kozinets’ (2010) netnography work. Both emerging in the late 1990’s, these approaches were prompted by the rise of online communities and “net life.” They both focused on the need for new forms of research to understand the Internet and to explore how it fit into people’s lives. These approaches took ethnography into digital spaces and are very much still used today to understand current online media and communities. More recently, Coleman (2010) has delineated different approaches taken the ethnographic bodies of work on digital media, separating them into overlapping categories including cultural politics, vernacular cultures, and prosaics of digital media. While providing rich perspectives, these approaches are still very one-dimensional in focus within the scope of where technology and artificial intelligence (AI) are headed today. They are observing social networks or online media as the focus of study, with a particular focus on the role of those media in today’s world. For all intents and purposes, these explore a very embodied experience, not other dimensions of reality in which identities are formulated and reshaped; where actors - both human and algorithmic - interact and engage beyond the individual subject.

A second approach to virtual ethnography focuses less on the digital media as subject, and instead looks more deeply at how people engage in virtual worlds. Both Nardi’s (2010) and Boellstorff’s (2008) work fit within this area of focus. Nardi’s exploration of World of Warcraft and Boellstorff’s examination of Second Life study the lives that are lived within these virtual worlds. Compared to the virtual ethnography/netnography approaches that came before, they focus less on the role of these digital spaces in modern society, and more on the interactions and cultures formed within these worlds. These are examples of fascinating ethnographic work, but for the purposes of thinking about dimensionality, it’s

important to note that the digital remains a site, unexplored from the algorithmic perspective or a broader societal perspective.

Finally, a third set of approaches has focused on the digital extension of data collection. This subset ranges from the practical use of digital tools like smartphones for capturing data to various data streams produced organically as part of the ethnographic artifacts considered. The former includes approaches like sensory ethnography. Droumeva's sensory postcards (2015) focus on using a combination of smartphone apps as a multi-modal data-capture tool and method of data collection. The aim, much like DScout and other tools, is to capture rich data from subjects' lives, including audio and video. These are data produced as data - through prompts, not organically captured. On the other hand, both ethnomining (Aipperspach et al., 2006) and Geiger and Ribes's (2011) trace ethnography work fit within the latter approach of looking at organic sources of data. Trace ethnography aims to combine the "wealth of data in logs" with other rich data to "reconstruct patterns and practices of users in distributed sociotechnical systems (2011)." These data are combined to create a more holistic picture of users' lives. This is also captured in Hsu's (2014) work on ethnography in the digital humanities, in which she argues for moving the focus of the digital from a subject to a method of research. Each of these has a different perspective - data collection tool, data stream, methodological approach. All of them are important in taking a multi-dimensional approach, but each is only one piece of taking such a holistic approach. The aim is to incorporate all of them.

The history of digital ethnographic approaches and areas of focus is rich, and has expanded and necessarily shifted over time. The first group of approaches focuses on the digital as subject. The second focuses on digital as sites of interaction. The third focuses on digital as source or data stream. These are all useful and important approaches, but we must continue to expand upon them as technologies become ever more capable, influential, and pervasive in our lives. We must aim to address the multi-dimensional nature of today's world. These approaches are but one part in a larger universe of action and interaction; of internal and external; of ephemeral and sustained. The aim in this push toward a multi-dimensional ethnography is to examine the combination of the internal and the embodied with digital, which together create assemblages of experiences over different temporalities, within different spaces, and between different agents. In the following section, I will explain how we are just beginning to explore these possibilities and where we are headed with our initial humble attempts in this area.

TRACES: AN APPROACH TO MULTI-DIMENSIONAL ETHNOGRAPHY

The concept of TRACES did not emerge from a philosophical perspective, but rather from the practical challenges of conducting ethnographic research that focuses in on the integration of technology in people's lives. The aim was to get a more holistic picture of people's lives. And beyond the complexities of traditional ethnographic praxis, the biggest challenges were to understand the boundaries and seams, the flows and the assemblages, and the multiple identities, agencies, and temporalities inherent in the use of digital technologies. We humans do not now, nor have we ever, had just one self. But with digital technologies, we have an incredible multiplicity of selves -- selves that can exist and interact and shape things, even when we are not present. And as we continue to move into a machine-learned

world, this will become an even more important force playing a role in our lives. These experiences are proliferating and add ever-increasing complexity to our lives. As researchers,

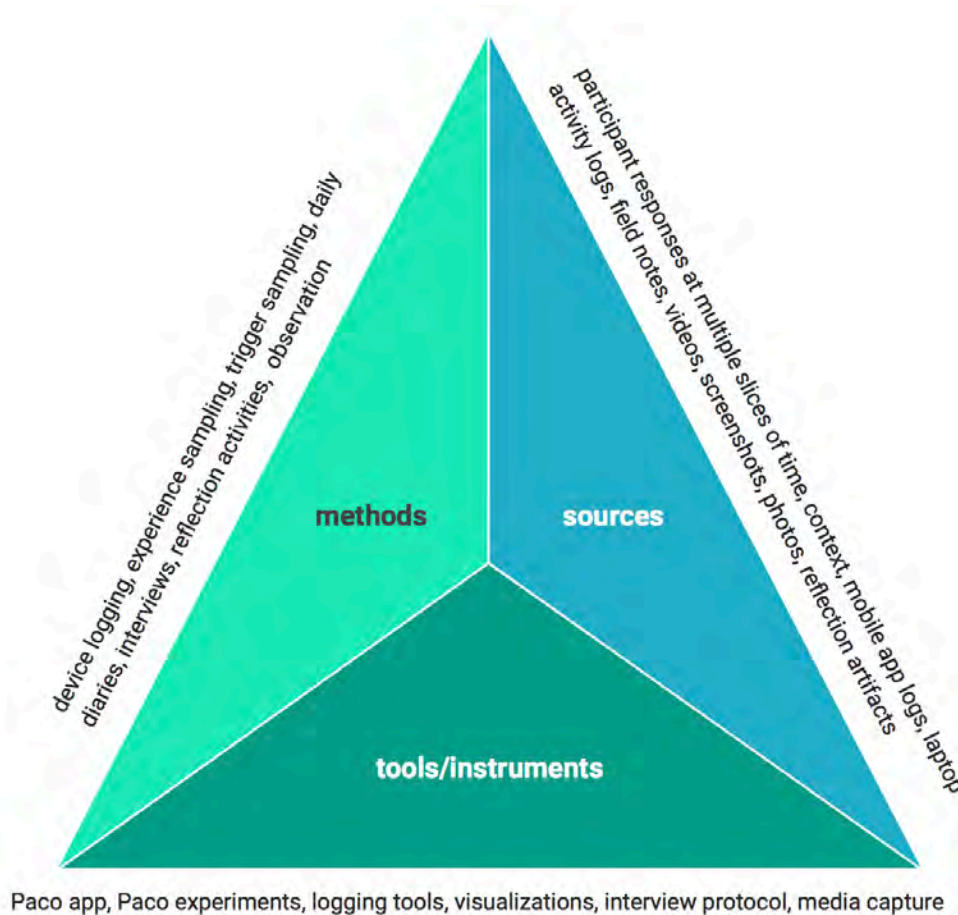


Figure 2. TRACES methods, sources, and tools/instruments.

we must adjust our research approaches, methods, and ways of sharing insights. We need grounded methodological and analytical tools to interpret things in a tractable way.

TRACES emerged from work in which we were seeking a holistic perspective to inform the design of intelligent systems. We needed an approach that allowed for a focus on dimensionality, that let us gather and interrogate data at multiple levels of granularity, and that was scalable to at least some extent. The approach I developed includes a combination of different qualitative and quantitative data sources, a variety of data collection methods, and utilizes a range of tools and instruments (Figure 2). It also necessarily incorporates new ways of analyzing and mapping the data together and emerging techniques for assessing the broader picture and making meaning from data. It is a humble start at developing an approach aimed to probe this multi-layered, multi-faceted realm of exploration, laying the foundations for future investigations. In the sections that follow, I describe a bit about the

theoretical underpinnings and motivations for TRACES, then provide an overview of how I am trying to implement this approach practically. I discuss the data streams I used and tools that teammates have built to enable this data collection and then illustrate some of the ways I and other team members have begun to analyze and synthesize the data and highlight some surprising findings that have emerged and touch on future directions, but also some limitations and caveats moving forward.

An Emergent, Activity-Oriented Approach

The motivations behind the TRACES approach are multiple. The aim was to take a deep look into people's lives as they exist today- fragmented, yet flowing between different spaces, devices, services, temporalities. We needed a holistic picture, and knew that in order to do so, it was imperative to capture multiple nested layers of granularity of people's lives. At a very practical level, we needed to do so to understand the various ecosystems of technologies and how they mesh (or do not) within day-to-day activities, thoughts, and desires. And at the vision level, we needed to understand how machine learning can, should, and will integrate into and impact people's lives in the future. More simply put, if we are to develop systems that learn people's contexts, activities, identities, networks, interactions, etc. to aid them, then we ought take a holistic, multi-dimensional ethnographic approach to understand the richness of those lives and guide development of in a humanistic, thoughtful, reflective way.

In considering all of these motivations and needs, one of the major influences in the development of this approach was Activity Theory. Activity Theory (AT) is a conceptual framework rooted in the socio-cultural tradition in Russian psychology. It provides a number of foundational concepts that are important in thinking about a multi-dimensional perspective. And it is also a pragmatic and fairly well-known perspective within technology research and design circles. Victor Kaptelinin (2013) notes that the activity-theoretical perspective "has an immediate implication for design: it suggests that the primary concern of designers of interactive systems should be supporting meaningful human activities in everyday contexts, rather than striving for logical consistency and technological sophistication." There are five main elements of AT, as delineated by Kaptelinin, that influenced the TRACES approach: 1) subjects have needs, 2) AT is object-oriented, 3) there are hierarchical layers of activity, 4) there are internal/external and individual/social dimensions, and 5) AT focuses on context. I will touch just briefly on why each one of these was important to the aims of our research – which is technology-driven and future-focused – and thus our emerging approach.

AT emphasizes that subjects have needs. They carry out activities, interacting with objects, to meet those needs. As we are imagining interaction with future objects, which do not yet exist, this influenced us to consider higher level motives and goals rather than think about actions as task-based and therefore framed by the constraints of today. Following from this, it is also clear that AT is object-oriented. This means the world is organized around objects-- which are defined as including both the physical world and social and cultural properties. Kaptelinin notes: "...[T]he subject's activity is subordinated to properties of the object which gives rise to new activity structures; in turn, new activity structures bring about new subjective phenomena." We are imagining future technologies, and thus future objects that give rise to new activity structures – new ways to pursue motives and goals. So

we must understand those motives and goals and be able to decouple them from how they are currently achieved today.

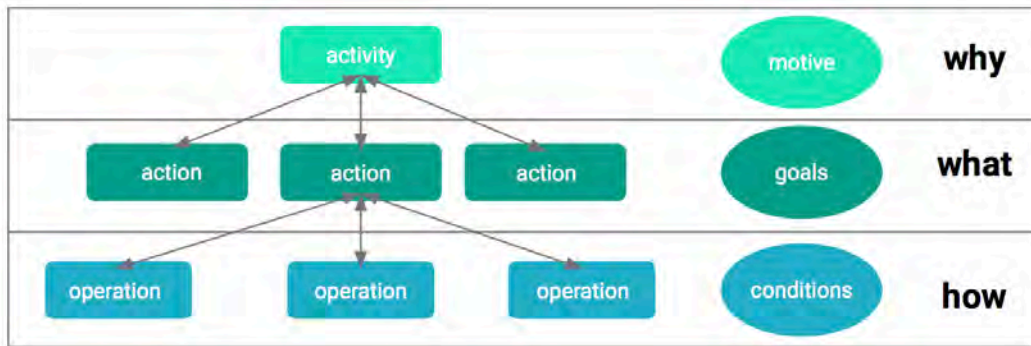


Figure 3. The why, what, and how of Activity Theory?

Following from this, one can break down activities into hierarchical layers, as illustrated in Figure 3. First, there is the activity itself, which is oriented toward a motive. This is the “why.” Below that are actions, which are conscious processes taken to fulfill a goal. These can be further decomposed into sub-goals and beyond. These are the “what.” And then there are operations - routine processes that address conditions and aid in reaching the goal. This is the “how,” and is also typically considered to be something people are unaware of. This structure helps us get at the issues of why, what, and how. Starting at the action layer allows a focus on qualitative methods, wherein people can report or express goals. And this analysis can be expanded both up to higher goals and motives and down to sub-goals and operations, which has been important in considering the dimensionality in how activities are accomplished.

The very notion of AT reveals a focus on both internal/external and individual/social dimensions. Activity is very intertwined between these dimensions. These divides are important to consider -- moving from internal thoughts to external actions and vice versa; looking at the process of transformation of an individual activity into a socially distributed one and vice versa. Finally, AT focuses on context. It emphasizes society, culture, and development and a set of concepts for capturing the context of use. In the research we are pursuing, it is imperative to understand context and how that informs people’s motivations and actions so that we can capture a more holistic perspective and probe how an intelligent system might supply and suggest relevant information, affordances, and interactions. These principles of AT influenced the structure of the TRACES approach, and in particular the different types of data streams that might be needed to glean a richer perspective of activity across multiple dimensions.

New Tools, Data Streams, and Methods

At its core, TRACES is a multi-method approach to gather insights into the lives, practices, and needs of everyday users at multiple levels of granularity. Given all of this underlying theory, how are we attempting to implement such an approach practically? In its current

state, the approach combines multiple data streams, including device logging, experience sampling and trigger-based sampling from device usage with more traditional ethnographic methods like in-home interviews, diaries, participant reflection activities, and observation and rich media capture. The goal is to combine fine-grained data with richer, qualitative data about the higher-level activity and more detailed data about the context and broader goals of the individual. As an ethnographer audience is already familiar with the more traditional ethnographic data sources, I highlight the less traditional ones - namely, the logging data, triggers, and mobile experience sampling data - which we have been able to implement and integrate into this work by using new tools, most notably, Paco (Evans, 2016), whose creator is part of this research team. First I discuss the data collection approaches - both etic and emic - then I will delve into how we are synthesizing and analyzing these streams.

An etic perspective – Utilizing log data itself is not new. It has been used in myriad studies within the human-computer interaction community and beyond. And approaches like ethnomining and trace ethnography have also brought it into the ethnographic toolkit. TRACES takes a similar approach to collection, building slightly on this by expanding the scope, but more importantly extends the ways in which it is integrated with other methods and synthesized with other data streams. First, TRACES expands the scope of log data by utilizing not just one source of logging, but many. Using Paco as well as other tools, I have logged not only mobile data, but also tablet, laptop and desktop sources in an attempt to begin to explore the ways in which different devices, both individual and shared, in different locations and with different roles and uses integrated into the lives of those who use them as they move through their typical day. And as capabilities extend, particularly on mobile devices, these log data provide not just behavioral characteristics of usage, but also contextual ones that provide insight into the physical world around the person, through sensor data. This also begins to provide a richer picture of how the embodied and digital are intertwined, enmeshing and embedding multiple identities - such as work identities, family identities, or gaming identities - in different spaces and dimensions.

Capturing more types of log data extends the scope of usage of this data stream, but TRACES has also extended upon log use as a data source by also incorporating triggers based on the logs. This is instrumented *a priori*, through the Paco tool. It provides the capability to choose an action, such as opening or closing an application, or taking an action within an application, which will then trigger a prompt for the person using the device to respond to. So, for instance, it enables the possibility of diving deeper into an interaction of interest like the use of a particular communication medium or a game, providing an opportunity to contextualize the actions into broader activity and, going back to the AT influence – when an individual activity becomes one that is social. In addition to asking simple text questions, Paco enables capture of rich media, so photos, screenshots, and audio responses can be used to gain deeper understanding of the moment.

Additionally, team members have developed tools for visual exploration of the mobile log data that enable a look into behaviors in real time, which are being incorporated into Paco. These visualizations inform the ethnographer's perspective and allow an opportunity for rapid data exploration and analysis. The visualizations show things such application usage types and individual mobile usage patterns throughout the day, which have allowed both the primary researchers as well as other stakeholders in the research to develop questions and areas to probe before an interview.

These different streams of logging data, the triggers that capture even more rich data, and the tools for visualizing it, are all rich sources of data themselves, but also provide topics to probe deeper with the people being studied. So they are a source of etic, observer perspective, from the outside, looking at behaviors. But they then help inform areas where we can gather an emic perspective from the subjects themselves in interviews.

An emic perspective – In addition to the other, more traditional ethnographic approaches we employ (interviews, diaries, reflection activities) where we can get a subjective perspective, we have also used the Paco tool to help capture an emic perspective of moments and their contexts throughout the day by instrumenting experience sampling on their mobile devices. In these experience sampling moments, people respond with information about their primary and secondary activities and the context surrounding those activities in the external, physical world. This includes questions around things like the materials used, where they are, and whom they are with. But we also probe for focus on the internal world of the individual, asking about how they are feeling, what they are thinking about, what their goals are for the activities that they are conducting, and what they are planning to do next. As with the previously mentioned trigger sampling, and in addition to asking simple text questions, Paco enables capture of rich media. So photos, screenshots, and audio responses are also part of this data stream. Going back to the influence of AT, this data allows us to explore both the external and the internal worlds of the individual from their perspective. So, there is additional dimensionality there as well. Thus, these overlapping sources of data provide both emic and etic perspectives looking at multiple worlds – the embodied worlds, the digital worlds, and the internal worlds of the individual.

When we combine all of these new data streams with those from more traditional methods, we have quite a combination: in-person interviews and observations, reflection activities and visual storytelling, daily diaries, experience sampling of moments throughout the day (focused on internal and external activities), various sources of logging data from mobile phones, tablets, laptops and desktops) and, from mobile phone, additional contextual data and trigger sampling date based on certain device activities. Extending beyond prior studies, these myriad forms of data allow us to not just understand the embodied, observable lives or the subjective perspective of it. They also enable us to dive into the internal state, the external enactment, the digital dimensions of these lives - individual and social, ephemeral and sustained - and from both etic and emic perspectives. As a result, we are not only able to understand daily phenomena and how technology fits into people's lives at a surface level, but to more deeply investigate the meanings, processes, contexts, and culture across these multiple dimensions. And in turn, I believe this will help us to better understand the people whom we are attempting to “learn” (as in, machine learn) for to develop rich interactions with intelligent agents.

Analyzing TRACES – So, we have a number of qualitative and quantitative data sources, from emic and etic perspectives. We have thick data and big data, in an individual sense. How do we begin to make sense of all of it and interpret it? I have already noted the use of some things, like visualizations. And we of course employ a number of traditional qualitative coding techniques and grounded theory explorations. In addition to more conventional analysis practices, my teammates and I have also used some other approaches to synthesizing

and analyzing the data. I will highlight a few unconventional approaches, including use of semiotic mapping, community link detection algorithms, and machine learning techniques.

Semiotic analysis is not new to the ethnographic community. But where it differs in its use here is how it is utilized to map signs, their signifiers, and what is signified across multiple different types of data from these various data streams. The starting point of analysis is a reflection activity, which I conduct while interviewing each of the individual participants. Part of this includes asking them to reflect on their past week and visually tell the story of it. The anchoring foci and how the story unfolds are different for each person. But regardless of the way it unfolds, it reveals some of the more powerful symbols of their recent experience. Taking these symbols, we can then delve into lots of other data from that previous week – logs, responses to triggers, contextual data, and experiential moments that include both external and internal aspects. We are thus “mapping” that sign into multiple dimensions. This has revealed some fascinating insights into what’s salient in the data versus the human (participant) experience.

Another approach utilized analysis algorithms to understand user clusters, among other things. User clusters are focused on looking at the degree of similarities among people in terms of their technology usage patterns. This technique primarily uses log data to compute pairwise comparisons (Jaccard similarity and Cosine similarity) and then uses relational class analysis (Goldberg, 2011) to investigate the different user clusters. Based on the patterns that emerge, we can first look to the other rich sources of data to try to understand these different clusters and label them. And we can also use them iteratively with other data to analyze behaviors to understand such things as whether usage patterns are really similar across different people we have studied. This is very valuable for a number of reasons, including having new ways to segment users, rather than on basic demographics. Other algorithmic approaches, such as community link detection algorithms (Ahn et. Al, 2010), can also be used to look at things like app clusters. Analyzing recurrent and recursive app usage patterns helps us understand how applications may be used in flows of activities. And this has provided deeper insights into emergent activity and the assemblages that constitute the individual.

This research is ultimately focused informing the development of technology systems that include machine intelligence, so part of our explorations have focused on how we can combine quantitative and qualitative data in unique ways to explore how machine learning can help us understand behaviors and predict individual traits. In one exploration of this, we looked at notions of privacy. A team member experienced in machine learning (ML) techniques first looked to interview data to qualitatively categorize perspectives towards and around privacy as a concept. These categories were then analyzed quantitatively across a wide swath of participants who had experienced varying degrees of privacy breaches to understand if there was a relationship. And then ML algorithms were trained on the behavioral data from the logs and then used on a subset of features to determine if it was possible to predict the attitudes around privacy that were uncovered in the interviews. In short, the goal was to understand if we can predict a privacy breach, with the aim of trying to develop better solutions or help users of services understand this better.

These are just a few of the approaches to analysis we have engaged with thus far. They incorporate tools and techniques from other fields, but they have provided a rich, multi-dimensional perspective that enhances and extends what we are doing ethnographically. These approaches provide robust ways to dig into thick, multi-dimensional data. They are

immersive, providing rich insights into the lives of the individuals we study. And they provide new lenses to interpret meaning. Our approaches have been iterative and we are still experimenting with different types of interpretive methods and how we can creatively get at research questions that require explorations reaching into these various dimensions. In the section that follows, I will highlight some of the higher-level findings from this research and broader emerging insights into research in this space.

Future Directions, and Caveats

The current state of the TRACES research program is just the beginning. We have utilized new tools, new data streams and combinations of methods for synthesis and analysis in order to make sense of these emerging areas. But as the physical and digital worlds continue to change, we must continue to adapt and refine our foci and our methods for understanding those worlds. We aim to combine different data streams and continue to experiment with new ones, and we hope to find new iterative and creative ways to explore the data.

The aim of this paper is to argue for the need for multi-dimensional ethnography. TRACES in its current state is just one initial set of attempts at getting at multi-dimensionality. We are probing multi-dimensionality through the use of a variety of data streams - through logging of multiple devices, which capture behavioral use and some level of context, through triggers that probe deeper, and through experience sampling focused on both the internal the external. All of that, combined with more traditional ethnographic techniques, has helped us make some headway. But there's a lot more to continue to explore.

In terms of data there is a lot more we can glean. From mobile phones, for instance, we are only getting a minimal level of contextual data, namely GPS location, time, and when the phone is locked/unlocked. There is a lot more sensor data available in mobile phones, like the accelerometer, magnetometer, gyroscope, barometer, proximity sensor, and ambient light sensor, as well as understanding presence of other devices, and thus perhaps people through peer-to-peer connections etc.

But there is also a lot more in terms of device possibilities. In addition to mobile devices and other general computing devices like laptops and tablets, there's a whole host of other devices people are beginning to interact with on a daily basis, including wearables and in-home Internet of Things (IoT) devices. The sensor data from each of these gives insight into different dimensions and at different levels. Wearables open up areas of biosensing like galvanic skin response. And in-home IoT devices move us into a new realm that considers the richness of ambient interactions. We still tend to think of screens when we think of device interaction, but as we move into a post-screen world, we must also account for other modalities, such as sound, touch, and beyond. And we must consider the interactions within them at a more algorithmic level. These spaces highlight the ephemeral nature and importance of thinking about amalgamated experiences - they are not "places" in the same sense as a website, and they are increasingly guided by machine learning, with adaptive algorithms shaping the experience. They are dimensions. And to get at these dimensions and interactions within them to understand the lives lived within those dimensions, we must continue to expand our toolkits. But we must also be cautious in doing so.

Caveats – It goes without saying that there are important concerns, sensitivities, and considerations in this space. TRACES is but a humble start at getting there. I have not gone into the detailed consideration we have given to the types of data we are getting from who and why and how we use it, but these were all incredibly important aspects of making sure this work is ethical. Ethics are a driving force in this work, not just from a research perspective, but also from a goals perspective. The TRACES work is intended to help understand models we can develop for machine learning and shape the design and development of systems with machine intelligence. And with machine intelligence (MI) having increasing agency in our lives, it is important to fully understand the ethics of what we are learning from people and how we are using it to shape their world as a result.

There are also caveats to setting things up properly. And there are cautions for interpreting them appropriately. This sort of work has immense raw materials- ranging from participant quotes to rich logs. This work requires continuous exploration, confirmation, and validation. We must continue to develop our protocols and instruments. We must continue to look to the grounded data as a source for inductive inquiry. And we must continue to consider the process of looking within and across people and populations and ensure data veracity. These are imperative as we move from data and information to knowledge to meaning.

A PHILOSOPHY OF MULTIPLE DIMENSIONS

We live in a rapidly changing age where the digital dimensions in which we engage shape us and society writ large. As Boellstorff (2016) notes: “Our era of the Anthropocene is now a ‘Digitocene’ as well.” And understanding this space has vast implications, especially as we move into a paradigm of specialized AI informing many of the digital spaces we engage with and through.

Prior work in the ethnographic community has certainly delved into the realm of the digital. Some have approached the digital as subject. Others have looked at the digital as site of interaction. And more recently, there has been more focus on digital as rich data input source or organic data stream. Each of these approaches focuses on important aspects of the digital in ethnography. These are important areas of developing focus and methodology within ethnographic praxis, but we must continue to push them forward and capture multi-dimensionality. Our research must engage with what I would call our “cyborg society.”

Digital is an important topic, a space where humans engage, a source of artifacts and data. But, as I argue, it is also an important to see the other dimensions of life – in our cyborg society – to have a holistic picture. Think for a moment of writing as a “prosthetic memory.” Yes, our cognition is distributed in such a way and has been for centuries. But it is much more complicated in a digital world. Now, humans are already cyborgs by the principle that they constantly use things like laptops and mobile phones to live their daily lives - with a reliance beyond even what Haraway (1984, 2013) conceptualized decades ago. As “cyborg anthropologist” Amber Case (2011) notes, we have “second selves” that exist online and can be interacted with, even when we are not present. We are moving into a world in which AI and machine learning are changing our prosthetic capabilities. We are moving into a world that allows us as ethnographers to reflect on what we make of our objects of study.

People - human beings - never were the *subject* of ethnographic study. We don’t study people, we learn from them. And those learnings tell us about things like meanings, culture,

power. Taking a multi-dimensional approach allows us to also consider more deeply the ways in which machines are also shaping things. This does not separate them from their human creators or users as such. But it emphasizes that, while there are beliefs and values built into algorithms *a priori*, they also have emergent properties that can shift this. In his work on sieves, like spam filters, Kockelman notes: “In particular, the values of the variables are usually steps ahead of the consciousness of the programmers (and certainly of users)—and thus constitute a kind of prosthetic unconsciousness with incredibly rich and wily temporal dynamics. Note, then, that when we make algorithms and then set those algorithms loose, there is often no way to know what’s going to happen next (Bill Maurer, personal communication). (2013)” This has far-reaching implications once we start to think beyond static algorithms as well.

Specialized machine intelligence has an ever-increasing presence in our lives, and taking it as subject would be revealing of our world today. And taking it as the focus of study is not new. Woolgar (1985) articulated this many years ago. What is perhaps new is the ability to get an even richer perspective over multiple dimensions. The purpose of shifting our framing to thinking of ethnography within multiple dimensions is not just to point out the variety of temporal, spatial, analog, and digital realms in which we live and in which our identities are embedded. It is also about the philosophical implications of studying the world - what does it look like from a machine perspective? And how can we bring more of a human element back into that? For those of us working in the organizations in which these technologies are being developed, it is imperative to focus on how these developments will influence and shape power, culture, and meaning in our world.

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NOTES

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1. Definition of “dimension” from Merriam Webster.

2. Based off of illustration (author unknown) here: <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/activity-theory>

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Papers 2 – Shifting the Disciplines

Five Steps Behind: How Ethnography Based Strategy Can Fuel Ingredient Innovation in the Early Stages of the Value Chain

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Global fast moving consumer goods companies are faced with significant challenges on all fronts as start-ups challenge brands, retailers' private labels challenge margins and technology giants like Amazon and Alibaba challenge the entire business model. To survive in this environment, FMCGs must, among other things, grow on the basis of meaningful product innovation — innovation that is often outsourced to their ingredient suppliers. Based on four client engagements, this paper outlines how the existing relationship between ingredient suppliers and their customers further down the value chain is currently defined by a deterministic dynamic that results in incremental and marginal innovation and a risk for said suppliers that their products become mere commodities. We argue that by employing ethnography based innovation strategy, ingredient suppliers can establish their own opinion of the market from the vantage point of their technologies and establish a new, meaningful and human-centered innovation direction that the whole company can unite behind. The approach helps re-ignite dried-up project pipelines through the new insights coming directly from the research, but it also creates more demand, as the combination of technological expertise and end-consumer insights can make the ingredient supplier a valued advisor to their customers on the end-consumer problems their technology can help solve. Ethnographic researchers that embark on providing such insights to ingredient suppliers must prepare to argue for the value of this type of data with scientists and practitioners trained in the natural sciences and must expect to play a key role in translating the data into actionable and measurable consumer benefits. Successfully implementing this type of research and its implications can change the relationships between suppliers and customers and eventually be a key to breaking the vicious cycle that often separates human understanding from technological innovation.

“The goal posts keep shifting. No matter how many meetings we have with [our client’s] R&D and procurement people, in the end it’s never good enough. It always just has to be cheaper or more efficient. We really don’t know what to do?” (Private Interview, Client Engagement)

A CONTEXT FOR THE RISING BURDEN OF INNOVATION

Branded consumer goods face threats from all fronts – start-ups and new-comers provide innovative, personalized solutions to demanding millennials (Economist.com 2016; Forbes.com 2016), private label brands squeeze prices and dominate shelf-space (Economist.com, 2015), and tech-giants like Amazon threaten to outright disrupt the whole retail and fast moving consumer goods (FMCG) sector. To survive in this environment, the brands your parents learned to love, and most of us grew up with as staples in the cupboard, are increasingly dependent on innovation across their business to remain relevant for consumers and, by extension, shareholders (Heda, Mewborn & Caine, 2017; private client

engagements). While much attention is levied on FMCGs that opt to buy fast-growing innovators in the space, the in-house innovation engine of FMCGs has during the last two decades increasingly outsourced innovation to their specialized chemicals suppliers. Despite no established correlation between R&D spend and successful innovation (Knott, 2017), ingredient suppliers continue to invest more in R&D (European Commission) in order to meet the brands' requirement for constant product innovations.

As evident in our research, suppliers of the most strategic consumer good ingredients often view themselves as indispensable research and innovation partners for the world's largest brands. In contrast, this paper highlights four cases where leading brands have positioned their ingredient providers as commodity suppliers, not partners, and in the process separated human understanding from product innovation, creating gaps in knowledge that hinder meaningful innovation. We argue that by employing ethnographic methods to better understand end-consumers, ingredient suppliers can establish a clear, overall purpose and direction for the role their product should play in consumers' lives. By developing solutions that target a clear end-consumer need, ingredient suppliers will be able to bring more to the table than ingredients and technical expertise, and position themselves as technology advisors rather than mere suppliers.

How should a detergent look and feel? What should be the specific grade of opacity, how slippery should the feeling it creates between your fingers be, how fast should it pour from the bottle you pour it? Today, your favorite detergent, razors, bread, chocolate, ice cream and lotion contain technologies invented by decorated scientists in physics, chemistry, and biotechnology (Twilley, 2015), employed by companies you likely haven't heard about, bought by procurement departments in global FMCGs who in turn have been instructed by marketers to find *any* technology that will enable the desired consumer benefit. These technologies ensure your product has the color, fragrance, texture, taste and performance you "want," while guaranteeing that these characteristics are consistent across time and place (Fellows, 2009). Said differently, the enablers of consumer product innovations are more often than not created outside the walls of the companies that stick their brands on the label. As one branded detergent producer explained to us, today branded producers "just make sure the technologies are mixed optimally" (Private Conversation, Client Engagement). Naturally, being part of that mix is a coveted prize for most ingredient suppliers. But these ingredient providers *lack the human understanding* that can give them a unique perspective on innovation with their particular ingredient.

Evident in four client engagements, this division of labor provides branded producers with a de-facto monopoly on knowing what the consumer wants and where ingredient suppliers are expected to deliver the technology that solves the narrowly pre-defined problem. Unfortunately, this is a deterministic dynamic because both parties are constrained: branded producers are limited by their knowledge of any given technology and thus brief only the suppliers that have previously solved similar problems for them, and suppliers receive only briefs within the same sub-set of problems and are never exposed to new opportunities. In addition, as suppliers within the same niche are eager to be included on the coveted ingredient list of a given global brand, they flock to solve the same set of problems, creating a downward pressure on price and a constant threat of commoditization.

In the following sections, we will outline how ethnographic methodology can yield benefits for ingredient suppliers and balance the burden of innovation by grounding innovation strategies in human understanding. We will outline key learnings for

ethnographers that work with R&D divisions early in industrial value chains, and will conclude the paper with a discussion of the steps ethnographers and advisors can take to ensure successful implementation of project recommendations.

NAVIGATING THE VALUE CHAIN TODAY

Control, Coordination and Growth: The Nature of Today's Value Chains

The road for your packaged goods – detergent, ice cream, bread, lotions, chocolates and more – from idea to your cupboard, is long. The end-consumer insight about *what* you want, *how* you want it and *when* and *where* you prefer to consume it is owned by FMCG marketers and their agencies. R&D and procurement officers ensure that the consumer innovation briefs delivered by their marketing departments are translated into more technical terms and offered for specialized ingredient suppliers to deliver on – spurring large investments in delivery to the exact specifications set out in the briefs. Since the beginning of commerce, value chains like this have been created as companies answer one central question: what is the most efficient way to produce a final good: Make or Buy?

Defined as the set of activities a company operating in a specific industry performs in order to deliver its finished goods, the term value chain was originally coined by Michael Porter in his 1985 bestseller *Competitive Advantage: Creating and Sustaining Superior Performance*. In this paper however, we expand the term to refer to what is sometimes called a *value system*, which includes value added activities performed by any firm in the process from raw materials to consumers' cabinets.

Since the beginning of the industrial revolution in the mid 18th century to today, the distribution of tasks in the value chain has been determined by the transaction costs associated with either buying the finished product on the open market or producing it in-house (North, 1992; Williamson, 1981; Coase, 1937).

At the end of the 20th century, value chains began dismantling from large, integrated producers to many smaller producers of intermediate goods. Those previously on the “make” side of the decision now more frequently opted to “buy” (Grossman & Helpman, 2005). This shift was driven by several factors: stricter competition- and anti-trust regulations, decreasing trade barriers (Hummels, Ishii, Yi, 1999) and a reduced cost of sharing information and coordinating among firms via information technology (Baldwin, 2012). This all supported the case for “buy” and enabled higher degrees of specialization (Hummels, Ishii & Yi, 1999). This development, Boston Consulting Group argued in 1998, undermined the benefits of vertical integration by enabling “virtually cost-free” communication and exchange between suppliers and customers, yielding a highly flexible mix of spot-markets and strategic partnerships (Stern, 1998), or what other authors have called *vertical specialization* or *a trade in tasks* (Hummels, Ishii & Yi, 1999; Grossman & Rossi-Hansberg, 2006).

This trend is very clear in the FMCG space. Companies such as Unilever, P&G, The Kraft Heinz Company, Nestlé and Mondelez International who previously sourced only the earliest raw materials for production and performed all marketing activities in house now have hundreds of thousands of suppliers that deliver everything from accounting services, IT consultancy, end-to-end marketing services, contract manufacturing of finished goods and specialized, highly technical ingredients (e.g. P&G, 2017). FMCGs have outsourced - decided

to “buy” - many of the capabilities within material science that were previously a cornerstone in their internal value chain and with which they have created some of the worlds’ most loved brands. These companies now focus much of their basic science on the interplay of the ingredients and increasingly rely on the innovation capabilities of a long tail of suppliers to push performance within categories and help them survive the disruptive forces of the industry. But even if FMCGs are under pressure, being a supplier – or indeed a supplier to a supplier – to the multi-billion-dollar brand portfolios they control is still a lucrative and prestigious deal that ingredient providers scramble to close. On the face of it, it is an efficient way to create competition for delivering innovation that matters.

The Consumer Goods Innovation Glut

FMCGs globally spent \$20 billion on R&D in 2016 (Financial Times, 2017). The Nielsen Company counts a total of 8,650 new FMCG product initiatives launched in 2013 in Europe alone (Nielsen, 2015), a number that increased at a rate of 9% between 2014 and 2015 (Nielsen, 2016b). Unfortunately, there is no proven link between R&D spending and successful innovation (Knott, 2017), and the success rate for these launches is very low: Only 18 of the 8,650 products launched in Europe in 2013 reached first-year sales of at least €10 million and maintained 90% of the first-year sales in the second year (Financial Times, 2017). This is no better in the US: in 2011, less than 3% of new FMCG launches reached first year sales of \$50 million (Schneider & Hall, 2011). This phenomenon is particularly bad for the largest companies: The US consumer goods industry expanded by \$35 billion in 2015, but the largest 25 food and beverage companies, while accounting for 45% of category sales, contributed only \$1 billion – around 3% of total growth (Nielsen, 2016b). Instead of delivering meaningful innovations, the thousands of annual launches of beauty products, fitness foods, fast foods, beverages, laundry detergents and dishwasher detergents are plagued by marginal improvements, tactical considerations and price decreases to drive the growth required by shareholders.

In a similar vein, innovation from specialty chemical providers that supply these consumer good companies has all but dried up. The cases this paper draws from all began with similar challenges: pipelines that were either empty, plagued by marginal improvement projects or lacking any “big bets” for the mid-to-long-term future. Lacking innovation in turn means more players can enter the lucrative markets for specialty chemicals and bio-chemicals, reducing the differentiation that used to bring in healthy margins, putting pressure on prices and threatening products with commoditization – a process that further reduces bargaining power and access to information (Strategy&, 2010; McKinsey&Co, 2017).

Innovation in consumer packaged goods occur when a business idea and insight – whether based on human or quantitative insight, or whether analytic or intuitive – meets a technology that enables its execution. We argue that disaggregation of value chains has a significant role to play in the low success rate and marginal nature of product innovations from those same value chains. In other words, the notion of communication technologies eliminating the costs of information exchange is false when the purpose of information exchange is innovation. By breaking product innovation into tasks that are performed by several actors operating at arm’s length, ingredient innovation is separated from end-consumer insight because the iterative and collaborative exchange of ideas and knowledge that is necessary for breakthrough innovation suffers (Hargadon, 2003; Vitasek, 2015). So,

while the break-up of the value chain to a task-based system of autonomous companies might be economically efficient in aggregate, the separation of ingredient, product and commercial insight has had unintended opportunity costs in the shape of slow and marginal innovation.

BRINGING NEW VALUE TO INGREDIENT SUPPLIERS THROUGH ETHNOGRAPHY

The Nature of Value Chain Relationships

Today, the relationships in the value chain are roughly one-way streets: information about consumer desires and market-relevant information is provided by the party closest to the end-consumer, for the ingredient supplier to act on. As one client stated:

“[our client] does so much consumer research themselves that we cannot claim to understand consumers better than they do. The most we can do is get some inspiration from them and then think of things that are a little wacky and might spark a conversation” (Private Interview, Client Engagement)

Assuming that consumer insights come only from customers higher up in the value chain created for our clients and their customers a relatively deterministic dialogue: customers higher up in the value chain supply an innovation brief with a set of very specific technical challenges to solve, and the supplier is expected to come up with a technological solution to the problem. Often, these briefs are directed to more than one supplier, welcoming those who can deliver the better technology relative to price.

As the procurement officers that mediate these briefs from the customers’ commercial department to the supplier are rarely experts in the technologies they procure, we observed that the technical problems our clients were being presented with mirrored technical problems they had solved before. Once they had provided a solution for product shelf-life, for example, future briefs were relevant to product shelf-life. This is a dynamic that our clients often recognized the problem in:

“When you aim to lead an industry from a technological position, the worst place you can be is where you were two years ago. That’s how you get in trouble... but that’s what they ask for - versions of the same.” (Private Interview, Client Engagement).

Our clients have lamented that specific problems around scent were filtered to perfumers, others to surfactants producers, and so on. So, while our clients often used language of “partnership”, this model forces them to fight from being considered a highly technical commodity, and without a firm basis of end-consumer insights and a point of view on what to deliver beyond solutions to match the technological problems described above, our clients did not always have a clear view on how to differentiate from competition and avoid price-pressure – in other words, how to help drive innovation. This is a dynamic that drives a pipeline of incremental and marginal improvements only.

When ingredient suppliers are eventually offered a bid on a new application, the race to offer a solution means that they often disclose immature but promising technologies that, when they are unlucky, appear less and less promising for the brief they are intended to solve as work goes on. But because suppliers fear damaging relations by admitting failure and/or

because they are locked in to this single application and customer through NDAs, joint collaboration agreements and shared patent filings, they continue working on the same technology, even when resources could be diverted to more promising endeavors.

As a result of these dynamics, suppliers end up in a situation where they can't control their own pipeline. Prior to one engagement, for example, our client's pipeline categorized more than half of the ongoing projects as "maintenance" or "incremental" technologies, another 25% were projects dedicated to a single client and had not moved forward for several years, and lastly, less than 1/10th of projects were categorized as outside our client's narrow core business area. Unfortunately, this is not atypical: in specialty chemicals, new innovations are increasingly marginal and occur at slower and slower rates. As a result, the industry finds it hard to maintain superior margins and growth, and many ingredients previously categorized as specialties are slowly commoditizing (Strategy&, 2010).

Breaking this vicious cycle requires dispensing with a central orthodoxy we observed among our clients: that it is not their place to understand consumers, and that this is the purview of, for example, FMCG companies:

"We can't compete with companies like P&G on market research, they basically invented it... we are scientists – who are we to tell them about consumers?". (Private Interview, Client Engagement)

Fortunately, there are several indications that a break with this logic is something customers higher up the value chain look for from their most preferred suppliers. During research for one client, procurement officers stated that they expect their suppliers to deliver more than just technologies:

"It is two ways. One side shouldn't be bringing all the ideas. [We] can't have one [side] lifting all the weight, [and having] all the ideas." (Private Interview, Client Engagement)

Wrestling Ingredients Free from a Commodity Categorization

While many of the products used in the production of consumer goods, whether final ingredients or process aides, are specialty chemicals that require significant R&D and specialized production systems, they are still chemicals that in most cases can be substituted by a competitor's product and as established above, the products that were previously specialized and patent-protected are now at significant risk of becoming commoditized. While this categorization may not decrease the strategic value of the ingredient type *per se*, it does reduce the strategic importance of each individual supplier and thus, reduces privileged access to the client-organization, insight into their development agendas and opportunities for price premiums. Thus, ingredient suppliers want to avoid this categorization, and they have tried many diverse strategies, including priced-in technical advice to accompany products (Strategy&, 2010), and even ingredient branding. Technical advice was a shortsighted differentiator that is now offered by most (ibid.), and ingredient branding is rarely seen to work, even if Kevlar®, Gore-Tex® and Intel® are touted as successes from other industries. Instead, ingredient suppliers should take a look at the key challenges admitted by marketing and procurement executives alike, and consider how they can become partners that help their customer stand out in their key challenge: innovation, and much more of it (PWC, 2013; CMO Survey, 2016; Unilever, 2017). Any supplier that can aid this

objective is bound to get preferential treatment and maintain his/her strategic value.

To do so, suppliers must do more than just deliver new products that satisfy the briefs provided from their procurement and R&D contacts. They must show that they know the qualms of the end-consumer and can combine this with unique knowledge about their technology to solve their customers' problems before they have been given – that they can stretch the capabilities of their technology to new areas and establish an exciting, unique pipeline that competitors merely taking instructions from the customer would never be able to. As one client's customer stated in a private engagement: "don't just think of one of my issues. Think of them with more integration!" In other words, ingredient suppliers must establish themselves as technology advisors, not merely suppliers.

The companies that bring strategic value to their customers in this way move themselves into the top tiers of suppliers and, in doing so, increase their customers' switching costs. This opens up possibilities for a price premium, a lower risk of being substituted by competition and it opens the door for new application areas.

Creating New Value Pools

The diversity of today's technical and specialized ingredients means that their potential for solving many more challenges is great, but if the companies that produce them continue to expect their down-stream customers to bring them broad and exhaustive data on the end-consumer, they will be waiting in vain. Consumer goods companies rarely know what the full potential of the technologies they procure is, and suppliers on the other hand, when presented with only a limited number of challenges to solve, cannot know the full extent of what problems to solve. Thus, to establish themselves as technology advisors and at create innovations that deliver new value and a differentiated pipeline, ingredient providers must widen their search for challenges to solve and opportunities to pursue, beyond those directly provided by their customers.

Instead of relying on those further up in the value chain to drive the innovation pipeline, ingredient suppliers must develop a view on the end-consumer from the vantage point of their own technology. To build a consumer-led technology pipeline, ingredient suppliers must not only understand *what* consumers do, but also *why* they do it and what specifically they are trying to achieve *when* doing so. When they establish this from the vantage point of their own technology, they are able to combine the end-consumer insights with what *their* technology can do to create value for consumers. This is a unique technical perspective that their customers will never be able to obtain. It moves the supplier from taking instructions to taking initiative, and it changes the relationship to their supplier in more than one way: By getting a full view of the solution space available, ingredient suppliers will be able to develop technologies where they themselves see fit, and develop them to a commercial and technological maturity that puts them in a stronger negotiation position *vis a vis* their customers. More than once we have seen a proprietary view of the market and the end-consumer earn suppliers a seat at the table when their customers' innovation agendas are being set, and brought in for advice and expertise that can inspire both the technical *and* commercial client organization. This makes the ingredient supplier stand out among the thousands of suppliers and potential suppliers vying for attention, and it makes it more likely that *their* product will be the ingredient selected to do the specified job. If managed well, changing the nature of the relationship in this way can create new streams of value for

FMCGs and their suppliers alike, solving the dual challenge of FMCG's innovation glut and ingredient suppliers' commoditization squeeze.

CONDUCTING RESEARCH AND IMPLEMENTING ETHNOGRAPHY BASED INNOVATION STRATEGIES EARLY IN THE VALUE CHAIN

Introduction to Four Project Engagements across the B2B Value Chain

In the past two years, the authors have conducted four client engagements employing ethnographic methodology to deliver innovation strategies for clients sitting early in the industrial B2B value chain. These projects all sought to use ethnographic methods starting from the client organization and then throughout the value chain in order to understand how clients could bring more value to those above them in the value chain. Each engagement involved research in a minimum of three geographic locations across Europe, the Americas, and Asia. These projects sought to answer:

- How can ingredient suppliers provide more value to detergent manufacturers?
- How can ingredient suppliers develop new offerings to elevate the baking category as a whole?
- How can industrial gas providers maintain and create value from farm to fork?
- How can (food) ingredient suppliers enable a new wave of nutrition?

In order to have a holistic view of the dynamics within the value chain, and discover areas to increase value along each step of the value chain, each project began with a framing phase to analyze the market structure and the critical players along the value chain. Research began by conducting an analysis on a) the client organization, b) the value chain, c) emerging technologies challenging the value chain, and d) end consumers.

In each project, like in prior work in industry, it was critical to dedicate significant time while framing the study on better understanding the client organization (Hou and Holme, 2015). This meant taking an ethnographic lens to the organizations themselves: understanding the organizational culture, attending new-employee training, visiting research labs and production facilities, conducting internal interviews across functions, and joining sales meetings and internal review sessions. This process was crucial to understanding of how each client viewed the market in which they played: what were their orthodoxies with respect to the market, what were their biggest challenges and uncertainties, and how did they understand their role in the value chain and the market dynamics in between them and the ultimate end-consumer (Madsbjerg and Rasmussen, 2014). Doing so prior to conducting all other research helped us ensure subsequent research covered themes relevant to the clients' core business problem, and would yield a clear perspective on the clients' existing orthodoxies and view of the market.

In order to conduct research on the value chain, we used our analysis from the client-centric research to help frame which component parts of the value chain, and determine which companies within these component parts would be most relevant to the research. This analysis was conducted closely with the clients, seeking to focus the research in order to ensure depth, while not overlooking critical elements of the value chain. Overall, the factors considered included proximity of the relevant company to the client's business model,

proximity of the relevant company to the end-consumer, proportion of added-value the company provides to the end product, and overall market share. Triangulating these factors provided a short-list of relevant companies throughout the value chain, which was then finalized (when relevant) by ensuring a split of companies who either primarily used our clients' ingredients or a competitors'. The research itself with these companies included semi-structured interviews across functions within the organizations, production and research site visits, and observations at the company site. In so doing, the engagements were able to provide a rich set of data on how each player within the value chain viewed the market as a whole, their set of assumptions on how the market was moving, how they viewed consumer needs, and finally their biggest challenges and uncertainties in how to provide value going forward.

Each project also considered how emerging technologies were challenging how both our clients and their value chains operated. This meant conducting research to include: interviews with leading scientists in universities and research centers challenging current technological norms, participating in industry conferences (e.g. the International Baking Industry Exposition), and interviewing and observing start-ups developing new technologies. These work streams were supplemented in two projects by scientists in our client organizations who conducted thorough patent reviews of relevant emerging technologies.

Finally, the research with end-consumers, for which the clients joined, proved an opportunity, often for the first time, to research how their ingredients were experienced by end-users in context. For example, this meant thinking not about the interplay of various raw ingredients to be used by bakeries, but rather to think about 'the role of bread in a meal', 'the experience of good bread', and how conceptions of meals and meal-times are changing. As scientists looking to improve the texture, shelf-life, or mouth-feel of bread, this type of investigation proved to both challenge existing assumptions while also putting existing frameworks into a broader context that was often obscured by those sitting higher in the value chain.

During fieldwork and the subsequent analysis and recommendations phases of our engagements, our clients continued to be heavily involved. This meant having members of a cross-functional team spend about 50% of their time with us, from joining fieldwork, to actively participating in analysis, to translating our findings and recommendations into technical briefs for the Marketing and R&D teams to work with going forward. This level of involvement proved instrumental in these projects, as in some instances the findings required a large shift in thinking from the client organization. Having thus been an active part of the process, enabled our clients to own and anchor this shift in thinking within the organization and its structure.

Key Learnings for Ethnographic Practitioners Developing Innovation Strategies With Clients in the Early Stages of the Industrial B2B Value Chain

As each of these four client engagements began, our clients varied in their stance in how much market research or data they had – from very little to 'more than we could process'. Invariably, in each case, these data-sets proved to be most thin when it came to a) ethnographic research b) end-consumers generally and c) an overarching view on end-consumers' experience and behavior. Instead, the data shared primarily covered market dynamics, value pools, competitor analyses, and market share. Furthermore, clients were

rarely able to provide insights about those more than one or two steps in the value chain in either direction from them. As such, it became clear in each engagement that we would be introducing a new type of data and point of view to these client organizations. And given that the clients involved had a strong background in e.g. chemistry, biochemistry, food sciences, and chemical engineering, an initial requirement as ethnographers in praxis was to have a clear overview of how and when ethnographic methods provide insight, and how the social sciences can be used to supplement the natural sciences in a business context. Proactively ensuring this understanding allowed a smooth onboarding for the client team that would be heavily involved with the day-to-day engagement.

Conducting an ethnography-driven engagement as described, studying not only consumers but also the client organization and the value chain as such allowed a thorough mapping of the needs and challenges of both end consumers, and the value chain, across markets. A key result of such studies is to map the asymmetries and gaps between the client, other players in the value chain and consumers. Highlighting these gaps and asymmetries shows the client clearly and precisely what organizational and cultural orthodoxies are most important to challenge and change to successfully execute on the new strategy and innovation direction. This provides clear guidance for clients in how they should engage across the value chain – what solutions are required for whom.

Furthermore, these engagements showed it to be critical that the ‘helicopter view’ provided by ethnographic methodology should not be interpreted by clients as a way to ‘out-smart’ their customers. In these four engagements, given both the historical depth of understanding held higher up in the value chain, as well as fear within the value chain that those below/above them are jockeying for power (which was apparent through our research by competitors’ attempts to expand within the value chain), efforts to show the true intentions of these engagements were critical both to set internal expectations, as well as to ensure a continued shared vision and partnership with customers. Rather than ‘out-smarting,’ the goal of the research was to a) enable our clients to speak at eye-level with their customers about the market, stimulating new conversations and sets of problems not addressed together before and b) provide our client new areas within this helicopter view where they could apply their technological expertise and expand their pipeline as well as the conversations and value provided to customers.

“Before developing [our own insights], we did not have a seat at the table – or at least not the right table. This [research] is the ticket to play in shaping the conversation... we too can talk at a higher level, and we have our own perspective.” (Private Interview, Client Engagement).

Despite having a wide base of insights, a key learning for our clients was how to pace and control the insights both within and outside their organization. Often, as companies sitting early in the value chain, these clients will provide solutions to many competing brands. Deciding how much to share, and with whom, became a critical strategic conversation internally – ensuring that core insights were not “given away for free” to one customer, thereby limiting the conversations one could have with further customers, ending up in the same locked-in situation described above. As ethnographic practitioners, helping clients navigate these strategic choices, in light of the research done to understand the market dynamics and value chain as a whole, is a key point of value. A key learning over the course of the four engagements was that the more steering we could provide in finding an

organizational home for the insights and their dissemination after the project, the more successful the engagement was considered.

Finally, as ethnographers, these engagements proved that while a “beginners mind” approach was critical to unearthing insights in the field, investing in a thorough training in the science and technologies our client (and their customers) produce was instrumental in being able to find the interlinkages between high-level conversations with senior executives in customer organizations and detailed conversations about challenges from scientists in the labs. In order to ensure this understanding requires involving clients in training sessions prior to the formal engagement, and ensuring all researchers hold a base scientific understanding of the industry prior to embarking on fieldwork.

DISCUSSION: THE MANY CHALLENGES IN CHANGING THE VIEW-POINTS ACROSS THE VALUE CHAIN

Developing a New Innovation Model: Best Practices in Moving from a Technology-Led to Market-Led Innovation Model

In the four engagements described, our projects commenced due in large part to a mid-to-long term issue: a relatively empty pipeline, a full pipeline that held no ‘big bets’ but rather an amalgamation of smaller projects, or a pipeline heavily skewed towards incremental innovation. This led to worries primarily in delivering sufficient growth for shareholders.

In aiding our clients to ameliorate these issues, a very fundamental, but critical structural reality played an important part in our ability to give good strategic advice: our clients were organizations whose heart was in the R&D labs, these were organizations whose folklore stemmed from their scientists and their breakthroughs. For example, heroes were the scientist who accidentally left a sample out overnight, realized that the underlying substrate had remained unchanged, and repurposed the ingredient into a different industry to inhibit the staling of food. Our clients were scientists who insisted that the best way to ensure quality in frozen food was to freeze goods immediately from the farm, to preserve their nutrition, food safety, and ‘fresh’ state. This view sharply contrasted with the many everyday consumers we met across the four projects – who viewed pre-frozen products as inherently less ‘fresh’ than purchasing fresh produce which they would later freeze themselves. The key for them was they could not ascertain and scrutinize the original quality of pre-frozen goods (assuming it as average), while they could for those products bought fresh in the produce aisle. Both had a clear logic, and yet divergent mental models for approaching freshness, air quality, or food quality. With our clients in particular, science and technology sat at the heart of their perspective on quality, but also at the heart of their perspective on developing new offerings.

To complicate matters, our clients’ customers were organizations whose marketing departments stood at the core, developing strong brands that consumers have woven into the fabric of their everyday lives. If our clients sought to provide clear value to their customers, they did not just need to translate insights into technical solutions – they had to translate these technical solutions back into benefits that the marketing departments of their customers could intuitively understand and recognize the value of. And in order to deliver benefits that were either meaningful or intuitively differentiable (or both), it required having a proprietary perspective on what drove meaning for end-consumers and what were

meaningful sub-segments of differentiation. Prior to these projects, our clients, scientists at heart, did not often feel comfortable taking on such views or having such conversations with their customers. As such, a key success point for these projects – and for any ethnographer working with early stages of the value chain – is to equip clients with a data-driven perspective on what drives meaning and value for end-consumers, and how this can be engendered through technology. However, given that our clients are research-based organizations, this translation process was new to them in all four engagements. As such, it was an area where strategic guidance was highly valued, namely tools for and assistance in translating features to benefits and finally to claims that could be empirically tested – as well as support in building qualitatively-driven, data-rich, insights argumentations.

What this has meant, at the surface level, has been taking on a shift in language, from technological features to consumer benefits. But more fundamentally, these engagements challenged the very way in which our clients approached innovation. Previously, scientists had a set of technological problems to solve, as well as the purview to innovate within a clearly defined technological field – for example, ‘help degrade stains caused by braised pork’. Any improvements found here would then be taken to customers to “test” and to see if they held any commercial value. This system had proven valuable to our clients in past and they had, over the course of decades, built innovation processes and stage gate systems to enter new products into their pipeline using this logic.

However, by introducing a strategic perspective on the role our clients should play in detergents, baking, produce, or food generally, the starting point has shifted from the technology (and a correlating potential value pool) to a need in the market (and then an enabling technology). That is, a move from being technologically-led to market-led.

This too can lead to a break with the observed orthodoxy that it is not “our place” to understand consumers, that this is the domain of FMCGs. Instead, a market-led perspective provided our clients with an ability to partake in discussions of consumer insights and benefits at eye-level. A key indicator for the success of our work as ethnographers and strategy consultants therefore, should be the number of meetings and workshops initiated by our clients’ customers to discuss insights and benefits (not technologies), and a shift in the conversation from being bilateral meetings with research divisions and procurement, to also including equivalent attendance from marketing and commercial departments.

As ethnographers, it is imperative to recognize the larger effect that such work in the early value chain can have on our client organizations with regards to their innovation model. This is particularly important when working with a single division within an organization as their innovation processes will likely run across divisions. This means that our direct clients may not have the ability to challenge these existing processes, despite the constraints they pose on a way of working that helps move clients from a pressured position to a strategic partnership. Thus, in order to anchor findings in the client organization, it proved helpful to take responsibility for sharing findings across the organization and translating findings to implications for existing projects. Furthermore, offering clear advice on the implications for the organizational structure, particularly in the first 3-6 months following the engagement, helped ground the insights and their implications in existing decision-making processes.

CONCLUSION: HOW A SHIFT IN PERSPECTIVE CAN LEAD TO RICHER INNOVATION PIPELINES

Following a study of the industrial B2B market as a whole, there is a distinct need within the market to find ways to ensure more meaningful innovation and product launches. However, when working closely with early ingredient suppliers across four engagements, it is clear that the current set-up alone is not enough to enable those who hold onto some of the most advanced technology in the value chain to provide the impetus for true innovation.

Ingredient suppliers should shift their view-point and perspective beyond the next step in the value chain and the clear briefs delineated by customers, to take a closer, self-directed look at the end-consumers that use the products their products are part of to develop ethnography based innovation strategies. Doing so, ingredient suppliers can transform their product pipelines and begin to change the one-way dynamics that characterize their current relation to customers. When ingredient suppliers can actually play a contributing role in defining *what the key problems to solve* in the marketplace are, and how their technology can deliver on this more broadly, they become more than a commodity supplier. They become true partners, technology advisors, that can drive conversations with customers on where to focus, what to develop, and in so doing, make customers see how their technology can be key to develop more meaningful and innovative products for end-consumers.

Ethnographers responsible for providing specialty ingredient suppliers with this perspective on innovation strategy must be sure to frame their research by first clearly understanding the client organization and their technology as well as the specifics of the value chain in which they operate. Beyond research, ethnographers and consultants must include the client both during analysis of data, during translation of insights into technical briefs, and ideally, should also support in the translation back to benefits that the clients' customers find relevant. To ensure successful implementation of the new strategy, ethnographers that lead these engagements should clearly delineate the most important asymmetries between the client's internal orthodoxies, the rest of the market and the end-consumer to show exactly where change in perspective is needed the most. In short, to successfully provide ingredient suppliers with a holistic view of the relevant challenges to solve with their technology and how to strategically use them to become a strategic advisor to *their* customers, ethnographers must ensure a holistic understanding of the client's organization and field before embarking on and concluding research and recommendations.

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Papers 2 – Shifting the Disciplines

Ethnographic Tools: From Insight to Intervention

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As a social researcher rooted in the traditions of participatory innovation, I set out to take a design anthropological approach to study the early unfocused phases of organisational innovation processes, and explore ways of both challenging and supporting these. With an interest in understanding how the tangibility of design coupled with the analytical nature of anthropology can provoke richer insights concerning organisational practices, my research team and I designed an artefact, called 'the tangible brief', aiming to elicit real stories about the challenges practitioners experience in dealing with innovation. The artefact resembles the content of a design brief and aims to bring together practitioners around the task of creating briefs prior to evaluating the potential of new ideas. The paper sets out to address the challenge of ethnographic researchers navigating a complex landscape of organisational innovation practices, and attempts to reframe the roles we can take in the field. Along those lines, the research contributes to a nuanced perspective on how tangible artefacts can become part of organisational figurations, and thus explicate the challenges that the social and political structures in the organisation are causing. Findings show that design anthropological practices can provoke actionable insights revealing deeper layers of organisational structures and processes, thus expanding on existing theoretical perspectives mainly highlighting how these artefacts can serve as conversation tools to encourage consensus and collaboration.

Keywords: Design Anthropology; Participatory Innovation; Tangible Artefacts

INTRODUCTION

While ethnographic fieldwork produces empirical insights that describe what people do and how they understand what they do (Wolcott, 1995), it also enables us to understand cultural diversity (Marcus and Fischer, 1986). And although we as ethnographers attempt to depict accounts of societies, we also seek to provide cultural critique and explore the meaning of “the variety of modes of accommodation and resistance by individuals and groups to their shared social order” (Ibid: 133). Consequently, through a variety of methods, ethnographers have been and are continuously exploring ways of making the familiar unfamiliar to invite reflections on culture and practice. One emerging research field particularly engaged in this subject is design anthropology, which aims to reframe relations and challenge people to think differently about what they do and how they understand what they do (Gunn & Donovan, 2012).

In an attempt to understand organisational practices, ethnographic methods have been involved in a variety of studies (Yanow et al, 2012). As ethnographers, we engage ourselves in the field to depict practice-based and situated understandings of businesses, and inevitably come to entangle ourselves in the daily complexities of organisational life. Thus, it becomes central to acknowledge that knowledge gained in the field is not solely built from prosaic facts that are waiting to be revealed; rather, ethnographic insights emerge in the continuously built relations between people (Ingold, 2014). Ethnographers become contextually sensitive through their entanglement with the subjective realities of the stakeholders (Beech et al., 2009), and in some cases move past the social front that the stakeholders normally present to strangers (Moeran, 2007). Hence, through this active involvement in the field, during which our contextual understandings constantly develop, we

come to depict the lived realities of everyday practices. This eventually enables us to facilitate conversations that make the familiar unfamiliar through explicating the relational, political and social dynamics of the organisation (Ybema et al., 2009). One way of inviting practitioners into these conversations is through tangible artefacts, particularly those designed with a situated understanding of the challenges an organisation is facing. By deploying artefacts that combine the tangible qualities of design with the analytical practice of anthropology, we allow ourselves a different kind of engagement. Rather than mainly describing the front-stage practices of organisations, we challenge and intervene into existing company structures, and attempt to elicit stories that go beyond those we are able to grasp through traditional ethnographic endeavours.

Within participatory innovation, where design anthropology makes up one of three pillars (participatory design and lead user research being the other two), findings highlight the advantages of designing and involving tangible artefacts that can instigate conversations to address businesses challenges. Previous research has shown how tangible tools encourage collaboration by building common ground for shared understandings, enable and unfold dialogues about business challenges, supporting company employees in exploring how these potentially could be addressed (Buur & Beuthel, 2013; Eftekhari and Larsen, 2012; Buur & Gudiksen, 2012; Buur et al., 2013; Buur & Mitchell, 2011). What yet needs to be studied is how these tools, through design anthropological exploration, can become part of organisational dynamics, potentially exemplifying or reinforcing social processes and political figurations.

The findings presented here attempt to expand on participatory innovation literature, by bringing forward a nuanced perspective on the influence of design anthropological tools. The paper challenges existing understandings and assumptions of how tangible artefacts involved in ethnographic endeavours can support dialogic interactions in company contexts. While the original theoretical premise is that tangible artefacts designed for specific organisational settings can support a diversity of stakeholder interactions, this research points towards an artefact enforcing two different agendas simultaneously. The artefact comes to act as a political tool, which on one hand supports prescribed management strategies, and on the other gives a voice to company employees. In the paper I seek to present how ‘the tangible brief’, which is a tangible artefact resembling the content of a design brief, went from supporting to challenging the agendas of the leadership team.

The Tangible Brief – The study presented in the paper is based on a research project aimed at supporting larger European organisations with new methods for working with innovation in early stages of their product development processes. The tangible brief is one of these methods. It was thought of as away to help an organisation deal with the early phases on innovation in a less unfocused and messy way. The tangible brief was particularly designed in response to the organisation’s request for employees to write design briefs, prior to being granted acceptance to work on any new innovations. While the employees were opposed to the thought of having to describe their ideas in such detail before maturing them to a level they would feel confident with, we as social researchers saw potential in developing a tangible artefact that would support practitioners in developing design briefs through collaborative exploration and negotiation.

Essentially, the design of the tangible brief was intended to translate some of the main concerns of a two-page design brief into physical objects. The two-page brief is

particularly concerned with stakeholders, resources, strategic aims and project processes, asking the ‘what’, ‘how’ and ‘why’ of project planning. We aimed for the tangible brief to explicitly involve practitioners in answering these questions, and to help provoke reflection and instigate fruitful discussions about their ideas and the directions in which these could develop. Using objects to express themselves, practitioners explore potential directions of their ideas prior to having to describe them in detail on a design brief template. As such, they are given the opportunity to explore their ideas before they are handed to the leadership team for evaluation. This moves the design brief from being an individual task to a collaborative one. It explicates the invisible creative process of employees, and at the same time helps them produce a brief that management would accept. To better understand the organisational practices, we as researchers saw the process of engaging the stakeholders in the design and testing of the tangible brief as a means to conduct ethnographic fieldwork. So, by engaging them in discussing these new work procedures, we found an opportunity to learn more about the practices, challenges and social figurations of the organisation. While designing the brief, we aimed for it to create a space that would enable us to ask more specific questions on how they deal with innovation, and better understand the roles and responsibilities of leaders and practitioners. Therefore, the tangible brief was intended to work on two different levels: as a support for design brief development and as an ethnographic undertaking.

Method – I take a qualitative research approach, eliciting real-life stories emerging in the organisation to understand the relational complexity influencing the ways in which front-end innovation work is formally described and practically organised within the organisation. As an entrance point, I conducted semi-structured 1:1 interviews looking into the formal structures of the organisation, to understand ways in which they deal with innovation. To add nuance to those insights, I observed internal project meetings and training workshops, while later actively taking part in activities, asking questions and challenging their taken-for-granted assumptions about their daily work. This initial fieldwork thus had the purpose of understanding the organisation on a general level, and slowly provoked responses about challenges that face practitioners and managers in dealing with innovation. As a natural extension of the formally planned fieldwork, the need to informally interact with and build confidential relations to the company stakeholders emerged, allowing me to tap into conflicts that on the surface lack potency, but in actuality have had quite a crucial impact on how their work practices finally take shape. I look to the concept of stumble data (Brinkmann, 2014), which acknowledges that unexpected events and conversations can be highly valued assets in attempts to understand people and their practices. I find potential to uncover new perspectives in informal settings, where people might have higher tendencies to share things they would not share in open discussions with their colleagues. As such, the formal and informal ways of collecting empirical materials provided me with an opportunity to generate richer insights and a more extensive understanding of the innovation challenges the organisation is faced with, and how they deal with them.

Designing Innovation Tools – As previously mentioned, the tangible brief was meant to support new work procedures; requiring the creation of design briefs prior to any front-end innovation activities. Department employees eventually discovered new opportunities in the

tool, began questioning the validity of management's decision, and in their responses showed that it could have different implications than the ones imagined at the point of origin.

As such, the tangible brief was designed to support management's strategy for making front-end innovation more transparent in the organisation. Thus, management sought to ensure communication across departments and avoid undocumented projects with wasted resources that otherwise could be better spent in downstream development. The tangible brief would help the managers visualise the new work procedures. This would bring employees together across disciplines to collaboratively create design briefs that the leadership team would evaluate, and then decide on whether to invest in. During a couple of months the practitioners described more than 50 design briefs, yet the leadership team still had not made any decisions on which projects to invest in. Therefore, the practitioners started taking a more active role in negotiating the use of the tangible brief. They started putting their managers in the hot seat, to get them to make evaluations in the process of creating the brief. They challenged them to make front-end innovation a higher priority, rather than giving those resources away to downstream development. As such, we began the project by intervening in their practice and using the tool to provoke and elicit ethnographic stories. This is distinct from the more traditional ethnographic consulting approach, which begins in a distanced way by describing existing company practice, before moving to stages of recommendations and potential intervention.

The Organisational Context

The ethnographic study has been conducted within a large European product development organisation, focusing on a department developing technological components across product lines in the organisation. Thus, the department in question is a cross-organisational service division mainly driven by revenues earned through projects that need to be delivered to their internal customers managing different product lines. Hiring mainly engineers, the unit is divided into three sub-sections: electronics, mechanics and design. Each subsection is lead by a sub-section manager. Together with the head of the department, the three sub-section managers form a leadership team. At the time we initiated the ethnographic endeavours, the head of the department had only recently been hired. His main task lay in supporting the department in re-earning recognition among their internal customers. Due to a tough period of fire-fighting and missing project deadlines, he was aiming to re-organise the department. This meant breaking down silos and integrating innovation as a central component of their development process, to not only survive the coming years, but to keep up with competitors in decades from now.

The design manager (SCD) has been in the department for nearly 20 years, and has found his own way of working with front-end innovation in an unfocused and explorative way. The sub-section manager of mechanics (SCM) was hired to save his sub-section after a break down. It left them incapable of delivering projects on time, thus diminishing their reputation within the organisation. The third manager in the electronics subsection was quite passive in the whole process of changing development practices, and therefore does not play a role in this story. What became important to understand is how they work across the department sub-sections, and how the development process is structured. With the new head of department wanting to situate people in the offices around projects, rather than competencies, the employees and managers are expected to work across areas of expertise.

Essentially, the product development process begins with concept and design development, before moving to manufacturing and testing. The concept and design phases are handled by the design sub-section, and run in iterations focused on developing ideas by testing concepts with end-users. These ideas are then handed to the mechanical and electronics engineers, who ensure that the product is technically feasible, before going to the manufacturing team. These two parts of the process are divided in such way, that employees from each sub-section are not directly involved in each other's work. While this is the existing way of developing products, the department now seeks to integrate teams into a more unified process. Currently, designers hand over explorative ideas that the engineers often return by stating that they are not technically feasible. It usually leads to continuous negotiations and compromises that perhaps could have been avoided, if they worked together more closely from the beginning. This process has created much friction in the department, and could be well expressed in a comment by one of the engineers: *"I have nothing against designers, but... There is a prejudice that designers are people that want appearance and smartness and are totally ignorant on natural and technological rules"*. In one case, the merging of project groups led to an engineer with 25 years of experience in the department resigning, due to his unwillingness to work across specialties in a more integrated way. Within the department, this has created a stereotyping of both designers and engineers. For the managers, integration brings the challenge of facilitating the process of development, and ensuring that front-end innovation (concept and design phase) is prioritised in downstream development. In this concern, they see a need to allocate resources in a way that balances their wish to innovate and manufacture, with their need to continuously sell products. This is part of their strategy of staying responsive to rapid societal changes, and keeping up with competition; knowing that their development cycles can last for two-three years.

While the design sub-section only has six concept designers employed, the mechanical sub-section has up to four times as many mechanical engineers. This gives SCM more freedom in allocating people to do front-end innovation rather than downstream development. And while he is extremely interested in front-end innovation, there have been conflictual events between him and SCD, due to his eagerness to step across the boundaries of SCD's area of responsibility. So, although new work procedures in the department initially seemed to be reasoned by budget cuts, ethnographic investigation revealed that these changes were due to complex social relations and managerial challenges.

Three Managerial Perspectives - To briefly lay the groundwork for why new work procedures were introduced, we need to balance three managerial perspectives concerning front-end innovation activities across the department. As a point of origin, specific conflictual events have challenged the social dynamics in the leadership team, and led to frictions emerging in the relation between the SCD and SCM. While the design manager (SCD) has been running his sub-section as a separate unit, feeding the rest of the department with innovative ideas and enabling them to stay responsive to market changes, his sub-section was perceived as a silo. The sub-section manager of mechanics (SCM) has not been in the department for much longer than the head of department, but has been particularly successful in building the competencies of his sub-section. While his responsibility is limited to his own sub-section, he is also quite interested in front-end innovation, due to the lack of technical restrictions. According to the head of the department SCM has on several

occasions attempted to involve himself in front-end innovation work, and has been warned against this, so as not undermine the responsibility of SCD.

According to SCM, he has been excluded in the development of front-end innovation, and has on several occasions been surprised by SCD introducing entirely new ideas, eventually affecting SCM's department due to an incorrect estimate of resources required to develop them. So, while SCM expected minor changes in some product lines, and had allocated resources for just those, he has subsequently been caught off guard after SCD introduced and handed over his subsection's new ideas. SCD did this to protect his department from being robbed of the chance to develop far-reaching innovative ideas, and to avoid having to stick to launch projects. Due to these events, SCM started rejecting the idea of having to constantly accommodate the needs of SCD's sub-section; particularly during time periods where he allocated his manpower for other projects that he had pre-planned. With an already articulated interest in involving himself in front-end innovation activities, he raised his concerns to the leadership team. He argued that they needed increased transparency across the subsections, to ensure that resources were well spent, and to not waste work hours on ideas that were hidden in the drawers. Additionally, he wanted to ensure that ideas were not suddenly introduced, leaving the department unable to accommodate the amount of work necessary for the proposals to be ultimately realised. His solution to this issue was thereby to introduce new front-end innovation procedures, that would require everyone to develop a detailed two-page design brief explaining the 'what', 'how' and 'why' of their idea. Handing this to the leadership team would enable them to make decisions on which ideas to invest in, thus keeping track of all activities running in the department. The SCD, in his position, could not oppose this request due to the risk of appearing to waste resources and concealing projects in the drawers. He did not see the value in it either; as it would restrict the creative workflow he had allowed his employees to work in, up until now. He would no longer be able to allow his employees to mature loosely defined ideas over longer periods of time, and would instead have to constantly allocate his resources to launch projects. In line with SCM's arguments, the head of department imagined that this new work procedure would enforce his plan of ensuring that his department can work across disciplines, and thus help them create a project culture, rather than a silo driven one. As a whole, the leadership team decided to introduce new work procedures (in the form of design briefs), ensuring that none of the sub-sections would be working on new ideas without their approval. In the bigger picture, they perceived this as an approach to increase transparency across the department, as well as preventing a waste of resources. This story basically looks different from each of the three managers' perspectives, but has in practical terms led to the introduction of new work procedures that they are still trying to adapt to, and find ways of easily implementing.

Introducing New Work Procedures – As mentioned, one of the attempts to increase transparency to ensure alignment in the department, while allocating resources according to what was needed, was to introduce the design brief. Department employees, particularly the designers, were previously spending time developing ideas that were not yet matured. While these were typically hidden in the drawers for a long time prior to being defined as projects, this was about to stop. Beginning August 2016, employees were not allowed to work on any ideas unless they had presented the leadership team with a two-page design brief describing their idea, the resources needed, the stakeholders involved, etc. If the leaders then agreed

that investing in that particular idea would bring value to the organisation, the employees would be allowed to work on it.

Many of the employees rejected this idea with the argument that their creative process would be lost, and this new procedure would not allow them to explore their ideas before putting them into structured explanations. However, the new work procedure was still presented as a necessity for the department to stand strong and survive the budget cuts by corporate management. While SCM seemed content and secure about the decision when it was presented at a meeting involving their middle managers, the design manager seemed to be more hesitant. He seemed aware of the consequences for his department, which had been surviving on maturing loosely defined ideas in the drawers, rather than immediately introducing them to a department that was not yet ready to deal with them on a more technical level.

As part of the process, the department hired an external design consultant, who we as researchers consulting the organisation had no relation to. The consultant would help them develop a new process for front-end innovation, with a specific focus on training the department practitioners in writing design briefs. For the practitioners, this was quite challenging due to the level of detail the design brief required. In response to this challenge, we found an opportunity to develop a tangible artefact that would acknowledge their creative process, and ensure that there was room for explorative and meaningful discussions prior to writing a design brief.

THE TANGIBLE BRIEF

Essentially, the tangible brief consists of four activity components, each addressing a central issue in how teams work on an idea, and each of which employees have had struggles defining when filling out the design briefs. The four levels are presented below:

- **Stakeholder Involvement:** This activity asks participants to consider which key stakeholders they potentially have to engage with in the project, directly or indirectly and internally or externally. Participants place small acrylic figurines on the board, which is divided into different stakeholder categories (i.e. external, internal, knowledge, prototyping, management) and according to time, depending on when in the project process they would need these to be involved. They are additionally required to decide the impact of the stakeholder on their project, and thus choose which colour the stakeholder needs to be given. Green means 'nice to have', orange means 'necessary' and red means 'crucial'. One example would thereby be to categorise one stakeholder as an external supplier, who is crucial (and thereby red) during the last three months of the project. Once they have agreed on this, they place the figurine on the board. In this way they negotiate the involvement of stakeholders, and create for themselves an overview of the people they need to engage with for the project to be successful.

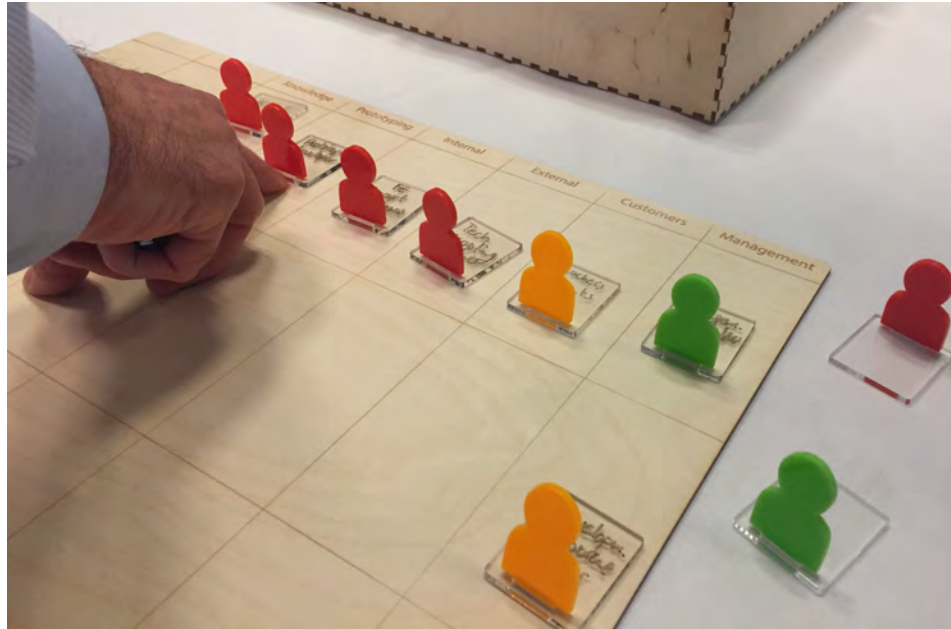


Figure 1. Participants allocate stakeholders on the board, according to importance and times at which they want them involved.

- Resource Allocation: Here, participants are invited to consider the resources needed for their idea to become possible. They are given a second board with four wooden squares in the centre, which they need to divide into time periods (i.e. three months per square for a one-year project). On these, they have the option of placing small flags (representing milestones) to consider where there might be important meetings, deliveries or the like. Coins are provided as a budgetary representation of the project costs. The coins are placed at one end of the board, providing an indication of the amount of money required within each time frame for the project to become possible. The money could for instance be spent on materials or external knowledge alliances. At the other end of the board they need to allocate internal resources in the form of manpower for the project. They are given acrylic pieces attached to rubber bands. The name of the employee is written on the pieces as well as the percentage of time he/she needs to be allocated to the project. Then they stretch the rubber band as far as it is necessary for that employee to be involved. It could be for just one week of research, or for 10 weeks of prototyping and testing.

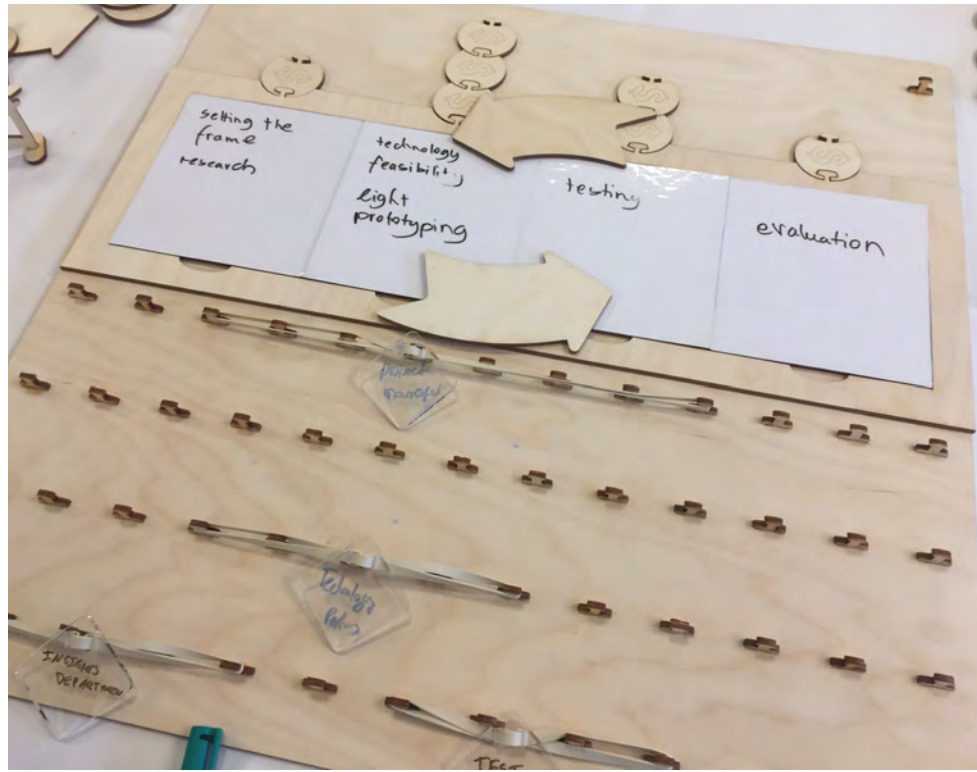


Figure 2. Participants negotiate the amount of resources needed to cover project costs.

- **Strategic Positioning:** The organisational strategy emphasises different goals within front-end innovation work, and some of these are engraved into a spider web on the third board. In the centre of the board the following question is posed: How does your idea support the strategic goals of front-end innovation? The group's idea is thereby to be evaluated in accordance with how well it supports the aims. There are five different ways their idea could support the strategic goals: not at all, improves, evolves, re-invents or transforms. Two of the areas are empty and allow participants to formulate a vision themselves. Once the web is fully completed they will have an overview of how their idea supports existing strategic initiatives within the organisation, and could also get them reflecting on where they could raise the ambitions of it.

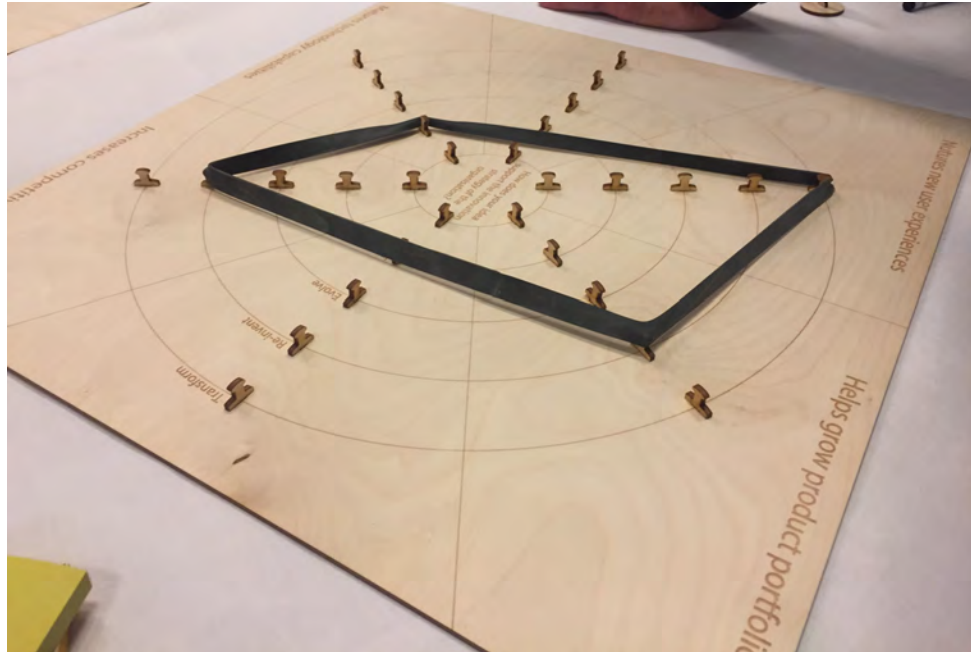


Figure 3. Participants position their idea according to the strategic aims of the organization.

- **Process Overview:** In the bottom layer of the box lays a set of arrows cut into different shapes (i.e. linear, curved, u-turns). They are additionally provided with a set of different elements with particular meanings (boundaries, money, people, decisions, milestones etc.). Participants are asked to build the process they might have to go through for the idea to be realised. They are asked to place the objects according to where they think they will meet challenges, where they might have deliveries, decisions, tests, etc. Visualising the process will encourage participants to discuss whether their previous estimates essentially make sense, and potentially discover challenges that could prevent them from being able to complete the project or initiate the development of the idea.



Figure 4. Participants create an overview of the process they estimate themselves going through in developing the project.

The combination of the four levels was intended to create a collaborative space for participants to discuss, challenge and reflect on the ideas they aim to nurture. Essentially, this allows them to imagine the potential of an idea prior to being required to rigidly describe it on a two-pager for submission to the leadership team. In this way, the tangible brief was meant to give them the freedom they found themselves deprived of when the new work procedures in front-end innovation were introduced.

The Tangible Brief in Action

The design of the tangible brief emerged as a collaborative process between us as a research team, and the practitioners as well as managers in the organisational department. Having reached a point where the tool had developed, and was ready to be tested by a group of practitioners from both sub-sections, our research group organised a pilot workshop with two smaller teams. Each of them involved one of the sub-section managers. The pilot workshop was organised around two different sessions. The first session was for testing the tangible brief, to explore what kinds of conversations it would instigate. The second session was to reflect on the experience of using the tool, and to discuss how they possibly could involve it in their attempt to create design briefs. Data was collected in the form of video and audio recordings as well as field notes. In the following sections, I will dive deeper into the empirical materials and the role of the tangible brief in revealing and challenging social figurations of the organisation.

The Tangible Brief as Enforcement of Management Strategies

As a point of origin, the tangible brief was designed to support management strategies, enforcing newly described work procedures that would increase transparency across sub-sections in the department. The tangible brief was thus sought to help managers easily implement their idea of focusing and structuring front-end innovation into design briefs, and avoid having practitioners working on ideas that are hidden in their drawers for longer periods of time. Rather than management having to find ways of explaining their concept of developing a design brief, the tangible tool put their idea into practice, allowing for new conversations and questions to emerge as a natural development of the workshop. From a research perspective, its design is also intended to generate a richer understanding of their innovation practices, by drawing on the emerging conversations. At the workshop, the tool invited participants into discussions that would advance them into asking questions about procedures and structures. This enabled their managers to articulate how they would be working with front-end innovation going forward. Part of the discussion went into explaining the slightly detailed differences between a brief, a work stream and a project; differences that should have been clear to practitioners working in the department. Although one of the managers seemed somewhat concerned that his employee did not know how to distinguish between different procedures, the workshop provided a space for those questions to be posed and for everyone to become clearer on the organisational structures.

As such, our initial aim of organising the workshop was to test the tangible brief within the department, and better understand how it could support the new work procedures. This would enable us to offer them a tool that could directly support their processes, rather than acting as an add-on and thereby eventually become neglected due to it not being a direct fit. After the test workshop, the design changed slightly. The two managers asked us to make it more specific for it to reflect the content of their two-page design brief. On several occasions, SCM explained that the organisation runs as a big well-oiled machine already, and that it does not easily accept any new methods that could influence efficiency. He articulates: *“If you want to introduce something new it should have a specific value for the organisation and fit into an already existing step in our processes, rather than adding another one. There is no need to overload employees with additional processes or tools, so I would encourage you to design something that would help us with an already existing challenge . . . which right now is the briefing process”*. And that is what the tangible brief set out to do – support a newly changed process, by introducing a tool that would ease the process of working with front-end innovation under new circumstances, requiring a higher level of detail from practitioners wishing to explore new ideas.

As part of a meeting following the pilot test workshop, both managers and practitioners were invited to influence the further development of the tangible brief. In response to some comments on the tool being very explorative and open for discussions, SCM articulated the need for it to become more aligned with their already existing process and asked one of his employees to send me the documents, from which I could extract the terms and symbols they already used. As designers of the tangible brief, we attempted to argue that the tool was not meant as a planning tool of projects, but rather a conversation starter that would get them to discuss and reflect on their ideas. We saw it as a way of challenging them to not immediately assume that an idea is worth investing in or not, but to invite conversations that might lead to the emergence of new meaning. However, the

leadership team insisted that it would have to be closely aligned with what they already do, in order for it to support their processes, and for the employees to learn how to collaboratively develop the design briefs. It seemed that their perception of our role as researchers shifted during the project. To begin with, we were the designers of a new front-end innovation tool, but as the collaboration evolved we were trying to disrupt their new work procedures and challenge them to think differently about the purpose of the tool. However, the managers held on to the idea of the tangible brief being a representation of their design brief, and we went on with designing it for that purpose.

The Tangible Brief as Practitioners' Advocate

In opposition to the managers' request for a tool that would align to their formally described work procedures, their employees found ways to use the tool to acknowledge and support their creative processes. In allowing their ideas to mature at a conceptual level, rather than plan the development of an idea that was not yet existent, they were challenging each other and their managers to think differently about the process. Rather than simply accepting the new work procedures, the practitioners on several occasions opposed the idea of having to present management with concepts they had not yet had the chance to explore on their own. As I was interviewing one of the designers about the new procedure and his understanding of the usefulness of the tangible brief, he said to me: *"But I mean, this tangible brief is not necessary before the idea becomes further developed. I could easily just go to my manager and say I want to spend a few weeks exploring and he will allow me"*. As I informed him that this was not the case anymore, he looked at me as if I was the one who had misunderstood something and added: *"No it cannot be like that. That is seriously nonsense. Why would I have to do a brief on something I do not even know the potential of yet? It would not hurt anyone if I spent a few weeks working on it besides my daily work"*. As I informed him that those were the new procedures he stood there looking at me utterly confused and finally said: *"That is really nonsense. Now that is bureaucracy"*. We then went into discussing how the tangible brief potentially could help him and others to explore the potential of the idea, rather than use it as a tool for planning an upcoming project in detail. At another interview, one of the employees admittedly said that he cleared his schedule completely when he found that we would have a meeting/workshop concerning the tangible brief. He agreed that the tangible brief could be used as a tool to support them in developing briefs, but emphasised that more importantly the setting of our collaboration, and how the tool was integrated in our conversation was what he valued. He explained it as being his only outlet to discuss front-end innovation with the leadership team; a space where he could address his concern of not being allowed to mature ideas on his own, prior to it being an official work stream. He stated: *"Us working on this with you creates a safe environment for us to prioritise front-end innovation, and to talk about the things we on a daily basis are just informed about and asked to do, without discussing the implications of any of it"*.

Similarly, in conversations with other practitioners engaged in working with the tangible brief, we came to realise the seriousness of having to describe ideas that had not matured yet. This prompted different types of conversations at the meetings between them and the leadership team. In a meeting following the pilot workshop, we discussed another design iteration of the tangible brief. The conversation happened to especially revolve around the third board, which addresses the strategic goals. While SCD and SCM argued that the strategic aims had to be broad and address the strategy of the entire organisation for

their department to act as a value-adding business partner, their employees did not agree. At the meeting, the leadership team was particularly challenged by one of the younger designers, who did not seem to accept the broadness of their strategic goals, nor that he should be forcing his ideas into them. He argues that: *“The strategies you defined became insufficient in the projects and in the ideas we develop. They need to be operational, and at the moment they are not”*. His manager replies: *“Well, these should help you realise if your ideas are sufficient or not. It is just for us and corporate management to see, where we as an organisation are heading; those are the parameters we will be evaluated from, by the end of this year. Probably many would find your ideas relevant, but that is not what you deliver to. We need to be a value-adding business partner”*. It is obvious to see that the designer is getting frustrated, and gets back to his leader saying: *“Maybe that is why all our projects end up being the same. Because we never know how to address the strategic goals of front-end innovation, and we always need to be a value-adding business partner. We end up just solving the projects our customers give us, because they pay the money... I really do not understand why we are not prioritising the exploration of new concepts, that could help us stand as front leaders in 15 years from now”*. The tangible brief appears as a tool supporting his arguments. He points towards the board and stretches the rubber band to explain how he did not find it valuable to simply pretend that his idea would be supporting a strategic goal, which he found to be too abstract for him to know how to address in practice. The fact that the tangible brief was placed on the table in front of them as an object clearly stating what their new work procedures would be, allowed for direct confrontation and negotiations of not only the briefing process, but also their prioritization of front-end innovation in the department.

The Tangible Brief Enforcing Two Different Agendas

Through working with the tangible brief across different levels and allowing it to be tested in an environment where both managers and practitioners were present, we continuously came to understand how it was working different agendas. As a starting point, it aimed to support the recently enforced managerial agendas as a way of simplifying the introduction of new work procedures, framing our work as the right-hand of management. Secondly, it operated as a provocation (Buur and Sitorus, 2007) allowing us to dive deeper into the organisational design and innovation challenges. What we had not expected was the opposition of practitioners against using the tool as intended by the leadership team. Thus, the tangible brief quickly became a tool of which the purpose and meaning were up for negotiation, rather than set from the beginning. The tool became a way of challenging and balancing perspectives across different hierarchical levels in the organisational, rather than means for creating consensus and fostering collaboration.

While the leadership team from the beginning insisted that the tangible brief would need to support their specific practices and help implement new work procedures, things eventually took a turn. In the beginning we were opposed to their idea of the tool, in a detailed manner, resembling the planning of a work stream, yet that was what the leadership articulated a need for. When we later organised a workshop involving the leadership team, the practitioners and several other academics and industrial practitioners, SCM's response was different. By the end of the workshop we invited an open discussion to evaluate the potential of the tangible brief to be implemented in practice. SCM stepped forward stating that he now found it too restricting. He did not find it explorative or playful enough for front-end innovation activities. He argues: *“We wanted this tool to give the people freedom, but I see*

that this freedom is being taken away as soon as you put people into the process [of developing the brief]. We need to build something into the tool to go back to this freedom. This tool should give the opportunity to find innovative ways of getting to a solution. There are a lot of stage gates in this, and probably we would like to have less". He then states that being involved in the process of developing the tangible brief has been a very rich learning process. SCM's reflections show that there has been a shift in his understanding of what the briefing process entails, and what challenges it could bring to their department. While some of the participants expanded the tangible brief by bringing in small toys and other objects to allow for a more diverse conversation, SCM finally also stated: *"I think the tool has been hacked today, and that is very good".*

In retrospect, the process of developing and testing the tangible brief has caused an intense involvement of both practitioners and leaders in the department; and more importantly, it has allowed for new conversations and meaning to emerge. While the initial objective was to support management's agenda, and design an artefact that would allow for collaboration and consensus, the tangible brief prompted a process we had not predicted. What finally gave us the most evident confirmation that the tool had provoked political conversations and challenged the social structures of the organisation was a meeting we invited the department to.

As we met both the leadership team and the practitioners, they informed us that they no longer needed the tool, and that they would not be creating design briefs for the rest of the year. Surprised by what we were presented with, we came to understand that the tangible brief had served as a provocation in the organisation; in one way or the other, supporting the practitioners in voicing their concerns and thereby allowing for new dialogues to arise. Thus, rather than immediately accepting that the tangible brief would help them develop design briefs, they involved it as a way of negotiating the new work procedures. According to the practitioners, this eventually led their managers to the realisation that nothing actually came out of the design briefs they had developed, and that they were trying to uphold an image of prioritizing front-end innovation, when in fact they were not able to at the moment.

The decision described above, inevitably had an impact on two different levels. On one level, it challenged the relation between practitioners and leaders in the department, allowing for new conversations to take place and affording the employees a bigger say concerning the future of front-end innovation work. On another level, it reinforced the frictions between SCM and SCD. This is due to SCM proposing increased transparency between the sub-sections, and thereby introducing the idea of the design brief, yet later realising that it would be too restricting. Another part of the reason why the idea of a design brief was discarded, is due to the fact that at the moment, SCD's employees do not have time to work on anything but launch projects although they are the ones officially hired to do front-end innovation. It thus became clear that only SCM's employees would have time to work on front-end innovation, even though they are not hired to do that. As such, this would prove SMC's wish to step over the boundaries of SCD's area of responsibility. Thus, creating another challenge for SCM with the department manager, who previously had warned SCM against involving himself too much in front-end innovation and hence disregarding the responsibility of SCD.

INQUIRY BY MEANS OF INTERVENTION

Carrying out fieldwork in a continuous way over a period of 14 months and building confidential relations with the stakeholders within the organisation enabled us to explore different means of provoking new insights and intervening into their practices. As part of increasing transparency across sub-sections in the organisation and developing design briefs in front-end innovation, we designed a tangible artefact, which we call the tangible brief. The tangible brief was originally intended to help designers and engineers collaboratively work on developing design briefs to find focus at early stages of their idea development. However, it eventually took the role of an artefact that would provoke fruitful discussions around their practices, and challenge their managers into reconsidering ways, in which they have planned and intended to organize front-end innovation activities. As such, the tangible brief inadvertently ended up deconstructing the purpose of the design brief. As new conversations emerged the tangible brief soon led to the elimination of the design brief procedure altogether. If this had not happened, there is a high chance that the organisation would still be struggling with the design briefs today.

In the participants' interactions with each other and the tool, we came to understand how it stirred conversations that led us to better understand their underlying concerns about their work practices, and the social structures built around these. The workshops and meetings emerged as dedicated spaces for them to discuss particular ideas, and use the tangible objects as a way of explaining themselves, challenging each other and imagining alternate futures. The tangible brief thereby quickly became another access point for us to generate ethnographic insight, and we consciously took that into consideration as the design process unfolded. Thus, combining the tangible nature of design with the analytical and comparative study of anthropology, we came to provoke insights and stories that we had not been aware of. Nor would we have been able to elicit these through the conversations we continuously found ourselves part of, formally and informally. In engaging with the tool and discussing the development of design briefs, the participants disclosed concerns about their inability to understand front-end innovation processes and work procedures that their managers had recently introduced. Therefore it opened up new conversations about their practices and a request for negotiating department priorities, strategic aims etc.

In the paper and through designing the tangible brief I focus on the quality of conversations (Buur and Larsen, 2010) emerging as a result of gestures and responses in the interactions between practitioners and managers, and explore how the tangible nature of the tool nurtures interactions that trigger participants to stress concerns they had not had the opportunity to articulate in any proper forum, prior to being presented to them in such an explicit way. In my attempts to conduct fieldwork to better understand the underlying challenges they experience in dealing with front-end innovation, I found myself entangled in political and social structures I had not anticipated. Initially, the tool seemed to support management in implementing new strategies and work procedures in a pain-free way. However, it started generating new insights about the organisation, and uncovering themes that I had not been aware of nor directed into asking about during previous ethnographic endeavours. I argue that inviting tangible artefacts into ethnographic practice emerges as a valuable way to create impact on the type of access we as ethnographers are allowed in the field. I find that ethnographers can move beyond the "classic" modes of ethnographic consulting in business—in which we offer recommendations for change through mostly

verbal forms of communication—and instead instigate change while simultaneously generating new knowledge about organisational life.

Tangible Artefacts in Ethnographic Fieldwork – Participatory innovation tools have previously shown a unique capacity to “contribute to a high quality conversation” (Eftekhari and Larsen, 2012:299). This study has shown that tangible artefacts involved in ethnographic endeavours can play different agendas, rather than simply supporting collaboration. So what may we learn from this experience? What does it teach us about ethnography and participatory innovation? Was the discovery of the tangible brief as a political tool simply a matter of chance or can we say more about it than that?

I argue that this experience is not a simple result of accidental findings, but has the potential to shift our field to consider its role as intervening in the organisations we work with. My argument here is that within organisational participatory innovation settings, tangible artefacts may open new lines of inquiry. By approaching design and anthropology and their interrelation as ways of generating insights, tangible artefacts have the potential to supplement and complement ethnographic field methods. As such, the design of the tangible brief and the ethnographic endeavours were in constant dialogue. This allowed for new discoveries to emerge through a situated anthropological study particularly inspired by the design process. As Otto and Smith (2013) state, design anthropology becomes a way of both analysing and doing in the process of generating insights. It also becomes a way of reflecting upon situated relations between people and to go beyond explanation to challenge and reframe usual dialogues (Smith and Kjærsgaard, 2015). Through interventions and material engagements in situated contexts, one creates opportunities for change (ibid). Thus, provoking the researcher to question initial assumptions, re-frame practices and social relations. Here, it challenged me to treat ethnographic fieldwork as an integrated part of the participatory innovation process. As such, I was not seeking a final destination of gaining ultimate knowledge about the field, but rather engage with the field to test, challenge and develop my understandings of their innovation practices.

CONCLUDING REMARKS

The paper explores the role of a tool we call ‘the tangible brief’, and shows how it was initially intended to increase transparency across department sub-sections by creating a space for front-end innovation to be discussed. However, it eventually ended up serving as a tool highlighting the politics at play inside the organization. I underline how this work opens up new lines of inquiry towards exploring the shifting roles of tangible artefacts in supporting ethnographers to conduct fieldwork. I prompt us, as ethnographers in the business world, to reimagine our practices, and our roles and relationships with organizational stakeholders. Instead of maintaining the “consultant” as a role model, we could consider our role as designers, disruptors or something entirely different. This leads to my point of ethnographers being able to contribute with not only the field knowledge we generate, but with the things we can do in organizations. It goes in line with Powell’s work on social mediation (Powell, 2016), where he argues that we might find ways of challenging perspectives within organizations. He argues that rather than neglecting the importance of outcomes like those of reframing relationships, we may reconsider the scope of ethnographic practice, and move beyond the textual product and the ability to provide

organizations with recommendations for change. Doing that, we could perhaps engage more richly with the back-stage challenges and social structures of the organization to challenge taken-for-granted assumptions, and contribute with increasingly nuanced perspectives on organizational innovation practices.

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Papers 2 – Shifting the Disciplines

A Mixed Method Approach for Identifying Emerging Fields and Building Collaborative Teams: Leveraging Network Ethnography to Design Experimental Interventions

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Rapid innovation in science and technology has led to the development of new fields that transcend traditional disciplinary boundaries. Previous studies have retroactively examined the emergence of these fields. This paper outlines a mixed method approach for using network ethnography to identify emerging fields as they develop, track their evolution over time, and increase collaboration on these topics. This approach allowed us to simultaneously analyze organizational trends and gain an understanding of why these patterns occurred. Collecting ethnographic data throughout the course of the study enabled us to iteratively improve the fit of our models. It also helped us design an experimental method for creating new teams in these fields and test the effectiveness of this intervention. Initially, organizational leaders were wary of using a network intervention to alter these fields. However, by presenting insights from both our network analysis and ethnographic fieldwork, we were able to demonstrate the strategic need and potential impact of this type of intervention. We believe that network ethnography can be applied in many other research contexts to help build strategic partnerships, facilitate organizational change, and track industry trends.

Keywords: Ethnography, Social Network Analysis, Collaboration, Community Detection, Mixed Methods

INTRODUCTION

Scientific collaboration often produces new discoveries, perspectives, and fields of knowledge. However, it is difficult to track the emergence of new fields at an organizational level or evaluate teams using an experimental research design. We address this issue in this paper by outlining how researchers can use a mixed method approach called network ethnography to holistically detect communities and study their evolution over time. Our team used this method to identify emerging research communities within a university's scientific collaboration network, track their evolution over time, and design an intervention to increase collaboration in these fields.

Network ethnography combines methods from social network analysis (SNA) and ethnography to simultaneously analyze the structure and cultural context of communities (Velden & Lagoze, 2013; Berthod et al., 2017). Previous studies have highlighted the need for using network ethnography to better understand the rationale behind network structures and designing interventions (Valente et al., 2015; Berthod et al., 2017). Using network

analysis methods allowed our team to visualize what these collaboration trends and organizational structures look like, as well as translate big data into actionable insights. Using ethnographic methods allowed our team to improve the accuracy of our models by helping us to identify more meaningful research teams, as well as gather the thick data necessary to understand why these communities emerged. By combining network and ethnographic methods and data sources, we believe that organizations can cultivate a more nuanced understanding of communities and their structures. In this paper, we provide an overview of our process and discuss ways that other researchers can leverage network ethnography to detect and study communities.

LITERATURE REVIEW

Scientific Collaboration

Scientific collaboration networks are a crucial channel for the diffusion of knowledge and innovation across disciplines and organizations. The number of research collaborations have been steadily growing each year (Dhand et al., 2016; Wuchty et al., 2007; Leahey, 2016). As a result, the field of team science has developed new metrics and methods for measuring team functioning in academic, government, and industry contexts using rigorous scientific methods (Börner et al., 2010, Stokols et al., 2008b; Fiore, 2008; Falk-Krzesinski et al., 2010; Falk-Krzesinski et al., 2011; Rozovsky, 2015). These studies have found that research collaborations vary greatly both within and across organizations. This variation occurs primarily based on the number of collaborators, the amount of team members/organizations involved, the group's disciplinary orientation, and the team's end goal (Stokols et al., 2008a).

On one end of the collaboration spectrum, pairs or teams of researchers from the same department and university often work together to address a problem that advances the discipline (unidisciplinary). Many scientific collaborations are unidisciplinary due to the organizational structures, training process, and reward systems of many institutions. Two major advantages of single discipline collaborations are the ability to build consensus on what is at the edge of the discipline and work more quickly to produce results due to a shared disciplinary training and language (Sonnenwald, 2007; Jacobs, 2014). As a result, unidisciplinary collaborations are often prioritized by departments in the tenure and promotion process. However, this disciplinary focus causes silos of knowledge to emerge and fragments scientific research. This insulated process limits knowledge diffusion, innovation transfer, and general awareness of others work on similar topics across disciplines. It also has caused disciplines to develop very different standards for evaluating the impact of research and the productivity of researchers.

Departments also play an important role in compartmentalizing science. These disciplinary units are reflected in federal programs, funding opportunities, hiring practices, money allocation, graduate training, and the division of university resources. As a result, other studies have also found that disciplinary affiliation is a significant predictor of grant and publication network structure (Dhand et al., 2016). Our study seeks to disrupt this trend by identifying cross-disciplinary communities that present unique combinations of knowledge and providing researchers in these fields with incentives to collaborate on grant and publications.

We operationalize cross-disciplinary communities as groups with collaborations between researchers from at least two different disciplines which are often operationalized as departments. We believe that tracking these unique combinations of knowledge can help us to identify the emergence of new scientific fields that often transcend disciplinary boundaries. These emergent research communities also highlight the unique research focuses of a particular university and allow organizations to track the evolution of a specific field at their institution.

This study uses SNA and community detection algorithms to identify cross-disciplinary emerging research fields within a university's scientific collaboration network that could benefit from additional support. SNA provides a method for visualizing the social connections (edges) between individuals or other entities such as organizations (nodes). It is also an interdisciplinary field that illustrates the role that social relationships play in shaping individual and group behaviors (Wasserman & Faust, 1994).

This study builds on Valente (2012), Vacca et al. (2015), and other network scientists' research on the role of network interventions in science, health, management, and other fields. These studies outlined methods for identifying influential individuals within a community, segmenting communities, inducing increased interaction between already connected community members, or altering the whole network to create or remove individuals or connections within an existing community. In our study, we altered the network to increase the number of connections (edges) between group members who had not collaborated before.

SNA has also been used to measure and describe the structural patterns of scientific collaboration networks (Newman, 2004). Scientific collaboration network structures are driven by a variety of organizational, disciplinary, geographic, linguistic, and cultural factors. Spatial proximity, homophily, transitivity, past collaboration experiences, shared funding sources, disciplinary training, and organizational divisions like departmental and college affiliation play a major role in shaping the structure of scientific collaboration networks. Previous studies have found that spatial proximity is also a strong predictor for research collaboration, with those closest to one another most likely to collaborate (Katz, 1994; Newman, 2001; Olson & Olson, 2003). Analysis of homophily (the idea that birds of a feather flock together) in collaboration networks has found that researchers are more likely to work with other researchers who are similar to them in discipline, age, gender, and other background characteristics (Powell et al., 2005). Research on the transitivity (the concept that friends of my friend are also my friends) of scientific collaboration networks found that the clustering coefficient was greater than by random chance and occurs due to scientists often introducing their collaborators to their other collaborators (Wasserman & Faust, 1994; Newman, 2001).

Using Network Ethnography to Improve Community Detection

Scientific collaboration networks are often very large. The networks in our study range in size from between 3,000 and 5,000 nodes (individual researchers) and between 10,000 and 20,000 edges (collaborative links between researchers). Other studies have used a variety of different quantitative methods to examine specific research fields or groups (Chen, 2003; Chen, 2004; Braam & Van Raan, 1991a; Braam & Van Raan, 1991b; Massy, 2014). Community detection algorithms allow researchers to identify smaller meaningful units

within a larger network (Newman & Girvan, 2004; Blondel et al., 2008). This helps to compare and contrast communities within the network and identify trends.

The community detection literature has focused on identifying and examining communities through quantitative approaches. Many of these approaches have been adapted from methods developed in computer science, sociology, and statistics (Newman, 2004; Porter et al., 2009). Previous studies have highlighted the difficulty of testing and evaluating algorithms' effectiveness at community detection in real-world networks (Gregory, 2008; Fortunato, 2010). Newman (2008) also acknowledged this issue in his critique that,

The development of methods for finding communities within networks is a thriving sub-area of the field, with an enormous number of different techniques under development. Methods for understanding what the communities mean after you find them are, by contrast, still quite primitive, and much more needs to be done if we are to gain real knowledge from the output of our computer programs...Moreover, it's hard to know whether we are even measuring the right things in many cases.

We hypothesized that applying a network ethnography approach could help to better understand these communities, explain why these fields developed, and address these measurement issues. Therefore, we designed a study where we participated and observed these research communities to examine their cultural patterns and norms. We also interviewed a sample of the researchers identified as community members to gain insights on what these communities meant to them and whether we were measuring the right things.

There is a long history of anthropologists combining ethnographic and network methods to examine personal and small community networks (Radcliffe-Brown, 1940; Mitchell, 1974; Wasserman & Faust, 1994). Ethnography provides a scientific method for analyzing cultures. Our ethnographic study of a university used participant observation and semi-structured interviews with researchers to systematically study scientific collaboration culture by exploring organizational dynamics and disciplinary norms. This paper is part of a small but emerging body of literature applying ethnographic approaches to examine networks and other models created by big data sources (Velden & Lagoze, 2013; Wang, 2013; Nafus, 2014; Berthod et al., 2017). This study builds upon both this long ethnographic tradition and emerging field by adding two new dimensions. First, we introduce the concept of using ethnography to test the fit of community detection algorithms. Second, we describe how ethnography can help researcher gain the necessary buy-in and funding from organizational leaders to design and implement a network intervention.

In order to design a network intervention, researchers must possess a strong understanding of both the underlying network structures of a community and how its cultural context shapes group behavior. Ethnography provides a lens for uncovering these deeper sources of meaning. Therefore, network ethnography combines SNA and ethnographic methods to explore communities more deeply (Velden & Lagoze, 2013; Berthod et al., 2017). Combining qualitative and quantitative approaches enables scientists to cultivate a deeper understanding of both what network structures exist and why these cultural processes developed. This dual analysis adds depth to both sides of the analysis. It helps to develop more realistic models of community behavior, address measurement issues, and analyze decision-making processes at both an individual and group level.

Our study also draws on the vast literature on translational science (Woolf, 2008; Hørig et al., 2005; Sussman et al., 2006; Stokols et al., 2008a). This field has two main focuses. First,

the translation of scientific knowledge to facilitate the adoption of new clinical practices and improve public health outcomes. Second, translating knowledge within teams or transferring knowledge between teams, institutes, or other organizations. The translation process plays a vital role in the development of novel therapies, replication of scientific studies, and dissemination of findings to the public. This literature provided the study with a framework for translating this network intervention to other contexts.

METHODOLOGY

Our study used a multi-stage mixed method iterative approach to identify emerging scientific fields, study these communities' team dynamics and cultural norms, design an experimental intervention, and create new research teams. Combining the methods of participant observation, social network analysis, community detection, ethnographic interviews, web profile analysis, and surveys allowed our team to simultaneously analyze big and thick data. Utilizing this ethnographic network approach helped us gain a more nuanced understanding of both the network structures and cultural norms of communities we were studying. It also allowed us to design and implement our network intervention.

We began our project by conducting six months of participant observation at a large university. We participated and observed a variety of activities across the university's sixteen colleges. These activities included participating in multidisciplinary scientific collaborations, observing scientists collaborating, talking with thirty-six researchers about their past and current collaboration experiences, and attending meetings across scientific disciplines both prior to and throughout this process. This contextual inquiry provided us with the necessary context to plan our study and understand disciplinary differences in collaboration norms. This context also helped us understand why this intervention was needed and where to focus our efforts for the greatest impact. This was necessary for pitching our project to organizational leaders in order to get the necessary buy-in, funding, and other resources that were required to implement our experimental network intervention. We continued our participant observation throughout the duration of the study. This continued participant observation helped us to ask better questions during our interviews, test our models, and adapt to organizational changes.

Our next step was to acquire the scientific collaboration data for all researchers at the university so that we could map their collaborations. We defined scientific collaborators as co-investigators on at least one funded grant or co-authors on at least one academic publication. Therefore, we used grant and publication data to create scientific collaboration networks. We chose this approach because our participant observation and interviews with researchers clearly demonstrated that these were the two most common products of formal research collaborations in academia. This finding is consistent with previous studies on scientific collaboration. We then used this data to map the university's scientific collaboration network using UCINET and R. Network analysis allowed us to visualize university level trends in collaboration (Figure 1).

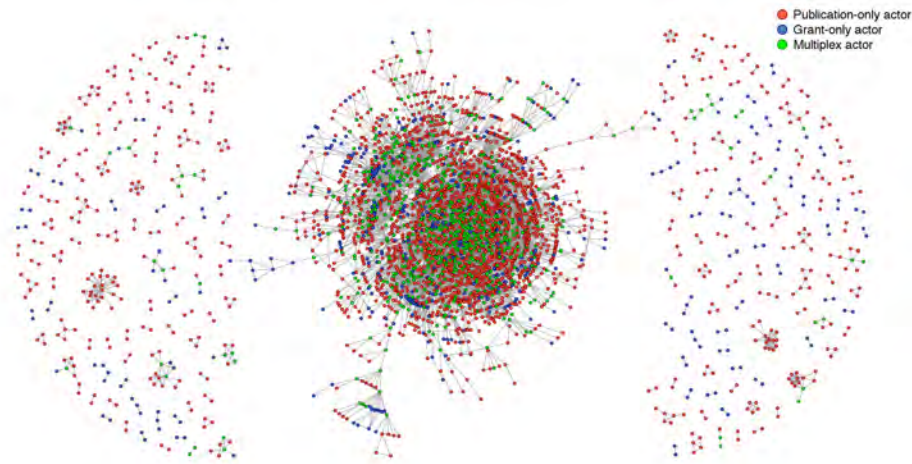


Figure 1. The university's scientific collaboration network in 2013. Each node (dot) in the visualization (Figure 1) represents a researcher and each tie (line) represents a collaboration between two researchers. Nodes are colored to distinguish between collaborations on a publication, grant, or both (multiplex).

After looking at organizational trends, we used community detection algorithms to identify emerging research communities within this network. We defined an emerging research community as a group of researchers collaborating on a related scientific topic. This definition is consistent with previous studies and our ethnographic interviews with researchers. These communities were identified using the Louvain method of community detection (Blondel et al., 2008). We chose this method because it maximizes modularity. This allowed us to identify very specific communities within our large scientific network and easily see the distinction between communities (Fortunato, 2010). It also allowed us to identify persistent (longitudinal) rather than temporal (single-year) communities. Our participant observation and interviews with researchers revealed clear differences in the scope and type of collaboration that occurs in short and long-term research projects. As a result, we chose to prioritize longitudinal communities because we wanted to map emerging trends across the university rather than individual research projects.

We identified emerging research communities in a few different ways in order to capture the variety of collaborations we observed through our participant observation and learned about through our interviews. First, we used a sum method to identify communities where investigators collaborated at some point between a certain period. Second, we used a co-membership method to identify communities where investigators collaborated consecutively for a certain period of time. Figures 2 and 3 highlight the differences between the sum and co-membership methods by looking at the same community of researchers over a two-year period. We then examined how the communities changed when we changed the criteria from between one and five years.

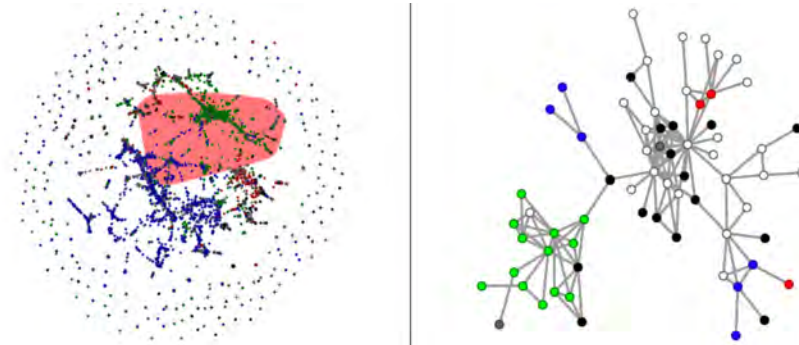


Figure 2. An example of a community using Louvain sum method. The image on the left highlights the community's location within the university's scientific collaboration network. The image on the right represents a community that contains individuals who have been in the community at any time in two of the past five years (not necessarily consecutively). Nodes are colored by academic unit.

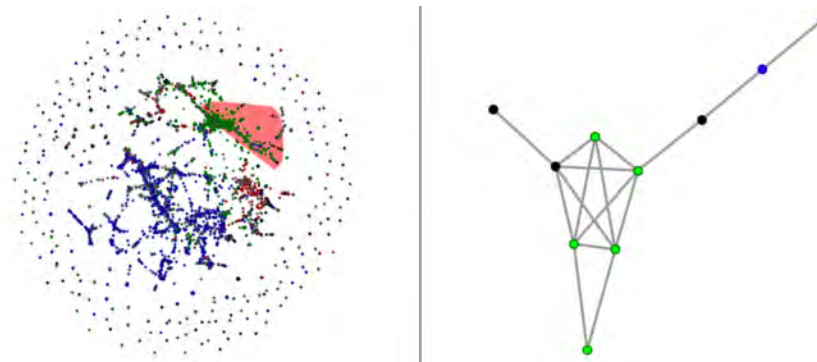


Figure 3. An example of a community using Louvain co-membership method. The image on the left highlights the community's location within the university's scientific collaboration network. The image on the right contains investigators who have been part of the same community for two or more consecutive years in the past five years. Nodes are colored by academic unit.

Examining how the communities' network structures changed based on the method and criteria helped us to visualize the different types of collaborations that participants described in interviews. Detecting a variety of different communities also allowed us to test multiple networks with participants during our interviews. This user feedback helped us understand the key differences between these different community visualizations and modify our criteria to create models that better fit reality and their cultural context.

After we identified these communities, we performed a profile analysis of each researcher or clinician identified in an emerging community to determine their research topics. We began this process by looking at each researcher or clinician's university website and performing a web search to identify their scientific expertise. We read through the names of the publications, grants, and collaborators they mentioned on their faculty web page or other online profiles. Then, we identified common keywords for each researcher. We compared these keywords to other researchers identified as part of their community to identify shared topics within research groups. We classified their research field by combining

the most commonly shared topics across the community. Comparing keywords across community members was often difficult because their profiles varied greatly in their scope, tone, the level of detail, and the types of information they provided.

Next, we solicited feedback from twenty-three researchers on our network visualizations through ethnographic interviews. We scheduled three distinct stages of interviews in order to iteratively test our visualizations and get participant feedback.

In the first stage, we conducted semi-structured interviews with three researchers to learn about their collaboration experiences and ask for feedback on the visualizations. Our goal for this first round of ethnographic interviews was to evaluate the measurement of our community detection instrument and determine if we should adjust our time frame, inclusion criteria, or exclusion criteria. We selected three researchers from two of the communities (from different departments and colleges) that were working on similar research topics (hypertension) to compare and contrast their visualizations. We then interviewed them for approximately one hour about their research collaborations to get feedback on our network visualizations. The user feedback from this stage let us know that we needed to revisit our criteria.

In the second stage, we solicited additional feedback from six researchers on our revised visualizations via email. Two of these researchers participated in the first round of interviews, one was unable to meet for an interview due to scheduling issues, and three had been previously interviewed about their collaboration experiences for another research project we conducted. Our goal for this stage was to test the new visualizations to determine whether the changes to the time frame helped to identify emergent research communities that reflected researchers' perceptions. The user feedback from this stage verified that the criteria changes we made allowed us to identify emerging research fields that fit users' mental models and were more positively perceived by respondents.

In the third stage, we conducted additional ethnographic data on these emerging research fields through interviewing sixteen scientists and clinicians. We used these interviews to further evaluate the revised visualizations, get feedback on their strengths and weaknesses, and collect narratives on team science and the translational process. Our goal for this stage of the process was to cultivate a better understanding of these communities in order to design a network intervention to propose new research pairs. The feedback from this stage allowed us to move forward with our network intervention.

In the final stage of this project, we identified pairs of researchers from the same emerging research community. In order to be eligible to participate in our network intervention, communities had to contain at least one member from the health sciences and could not have collaborated on a grant or publication in the past three years. We identified both a treatment and control group that had similar network structures and shared similar group characteristics (i.e. level of interdisciplinary). We then selected pairs from the periphery of these communities.

We then conducted another round of web profile analysis to evaluate whether or not the pairs were viable. Through this analysis, we identified fifteen pairs of thirty investigators and sent them an email outlined the study's goals and incentives. Each member of the pairs who participated was awarded \$1,500 in professional development funds. This funding was contingent upon the pairs attending a group meeting to provide an overview of our network intervention and jointly submitting a letter of intent that described a new collaborative project for potential pilot funding from the institute. Based on the quality of their letter of

intent, three pairs were asked to submit a full grant proposal. These proposals were peer-reviewed and the institute we partnered with selected which pair received a pilot award of up to \$25,000 to complete their project.

RESULTS

Our analysis revealed two distinct types of communities: cores and bridges. Core communities are research groups that are concentrated within the same section of the university's scientific collaboration network with dense connections typically between a small (<20) group of investigators (Figure 4). Bridging communities represent groups that span across different sections of the university's scientific collaboration network with sparser connections typically between a large (>20) group of investigators (Figure 5). We also examined the network structure and composition of each community (Leone Sciabolazza et al., 2017).

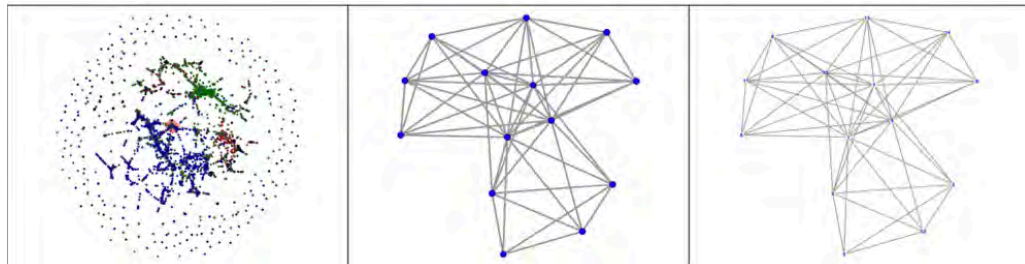


Figure 4. An example of core community. Each node (dot) represents a researcher. Nodes are colored by the researcher's college affiliation.

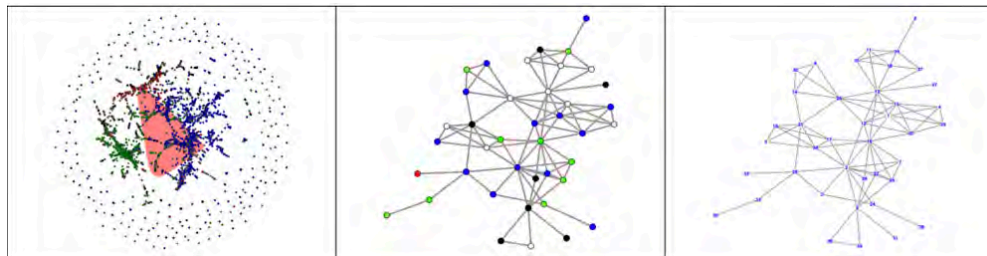


Figure 5. An example of bridging community. Each node (dot) represents a researcher. Nodes are colored by the researcher's college affiliation.

First Stage of Interviews

The first stage of interviews revealed five common themes: measurement issues due to criteria limitations, missing data, respondents' poor perceptions of the visualizations, the role of mentorship in these networks, and researchers' motivations for transdisciplinary collaboration. All of the respondents made it clear that these visualizations were too narrow. One scientist responded to the visualization by explaining,

The search criteria are pretty strict [...] I get what you are getting at, it's just you are gonna miss some things because [you know] it can still be a consistent collaboration but some of the people may change over time [...] It's a way to reduce the complexity of this but I just worry that you lose a lot.

They also reported that many of their critical collaborators and more recent projects were missing from these visualizations. This feedback indicated a need to adjust the time frame to better capture their current collaborations and breadth of their research.

The comments from all three interviews suggested that though we were trying to capture emerging communities we were actually identifying stable communities in this first iteration. By identifying only communities where members had collaborated in all five of the past five years, we were capturing small core groups that had a strong history of collaboration. These communities often represented strong relationships between mentors and their mentees. Though these are important relationships to examine, they were not the target of our analysis.

We also found through the interviews that the networks looked simpler and more homogeneous than they actually were in terms of their department/college identification and the strength of the collaboration. The respondents said that though the collaborations highlighted in this group were true, they did not highlight their most innovative or interdisciplinary work on emerging topics. This is a measurement issue that was addressed by adjusting the criteria from five years to a two to three-year period. This shift allowed us to capture much larger, more dynamic communities, working on more recent scientific issues in emerging research fields.

Interviewees also noted that many of their critical collaborations from this period were missing though they believed that they fit the inclusion criteria. It seemed like on a large scale the network data was great at identifying trends, but its accuracy from year to year can be limited. The issues of some missing data points are problematic when you have set strict community criteria. Thus, it is essential to loosen the criteria to improve the accuracy of the models. If a collaborator needs to be in the community all five years, small issues can result in big problems like a lack of appearance within the network. However, if we relax the criteria to two or three years these collaborations will still appear though the strength of the tie between researchers may be underreported.

These initial interviewees also found the network visualizations interesting but perceived them negatively. They were frustrated that these visualizations did not highlight what respondent's self-identified as their most emergent research collaboration/topic. They also believed that they minimized the interdisciplinary work they were often proudest of. These responses highlight the importance of getting feedback on models created through big data sources. Negative perceptions of visualizations can signal a deeper problem with the tool you are building. It is important to create visualizations that fit people's mental models of the phenomenon you are trying to map or they will simply dismiss your results as irrelevant.

The interviews highlighted the critical role that mentorship plays in developing stable research communities. Mentors play a major role in socializing mentees and setting collaboration norms. Mentees introduce mentors to new ideas, challenge their assumptions, and introduce them to other faculty members (typically through co-membership on graduate committees). The mentor-mentee relationship forms a strong bond that does not respond to funding mechanisms the same way that other collaborations do. Mentors and mentees also play a critical role in brokering new collaborations by introducing them to new collaborators outside their network. They also provide a sounding board for questioning assumptions and developing new insights.

Interviewees explain that their primary motivations for collaborations were intellectual curiosity and passion for the project. They also shared the belief that interdisciplinary collaborations can be more difficult but they are also more rewarding long term. They highlighted different expectations, administrative barriers, disciplinary norms, and academic language as the primary challenges when engaging in interdisciplinary team science.

After this first round of interviews, we shared this feedback within our team and redefined our criteria. Based on our user feedback from these initial interviews, we revised our models and adjusted the time frame from five years to both two and three years. We chose to create both two and three-year visualizations because we believed based on the interview feedback that sharing both types of communities with interviewees would allow us to examine different types of collaborative projects.

Second Stage of Interviews

After revisiting our criteria and soliciting additional user feedback to test our changes, we collected additional ethnographic data on these emerging research fields through interviewing sixteen scientists and clinicians. These interviews highlighted the many challenges of capturing emerging research fields. Emergent fields are difficult to capture due to the fast pace of science and slow speed of the peer-review process. The networks highlighted the general trends in the community but were not able to capture the subtle nuances of group dynamics and many informal collaborations between researchers that did not result in a publication or grant. In order to address this issue, interviewees suggested that we integrate data sources from other collaboration products like grant applications, patents, and abstracts from conference presentations to identify more recent research collaborations and emerging topics. However, interviewees agreed that these networks were helpful tools for starting a conversation about their collaborations.

The co-membership (consecutive) networks were identified by respondents as the most accurate by interviewees. The two-year consecutive co-membership networks were identified by the most interviewees as the best representation of their emerging research field. However, the three-year consecutive co-membership network was seen as the most meaningful by many respondents, especially those with larger collaboration networks.

We found that interviewees received medium sized communities more positively than small or large communities. Communities of ten to forty researchers were typically most meaningful to participants. When communities were smaller than ten people, respondents often said it was too small and highlighted only their core collaborators. Communities of more than forty researchers were helpful for situating researchers' context within the larger university's network, but they often did not know of all of the community members. This was especially true in communities that had more than one hundred members.

Respondents said that they enjoyed seeing where their work fit into the larger scientific research landscape at their university. However, they were often overwhelmed by looking at the larger visualizations and did not derive a lot of meaning from these types of networks beyond being excited to share them with others. Most respondents identified their middle-sized community as the most accurate representation of their collaboration network and the emerging research field in which they were identified. They explained that this community best balanced the breadth and depth of their research in a meaningful way.

Scientists' perceptions of themselves and their research also shapes the way they interpret these visualizations. Those with a high level of status within the university and collaborators viewed these visualizations as proof of their accomplishments. Whereas, those with a lower level of status within the university and fewer collaborators often saw these visualizations as tools that demonstrated their self-worth, the level of their connections, and the value of their research. One associate professor even said that she planned to use these visualizations as resources for her tenure packet. Other faculty members expressed interests in using the visualizations for other purposes. These included fostering new collaborations at a department level or starting new collaborations within their research group. The act of sharing and starting a conversation about these visualizations with faculty members served as a form of intervention to raise community members' awareness of these emerging research fields and their collaboration patterns. Though these efforts were not part of our initial goals for the project, they demonstrate the potential network effects that sharing these visualizations can have on research communities.

Researchers define their research community in different ways. This definition varies based on their individual conception of collaboration and the disciplinary context of their field. These different conceptions of communities vary greatly by research context. Interviewees provided different narratives about their collaboration in response to each community they were shown. This means that there is no clear best way to identify and visualize a research community. It also means that different communities reflect the team dynamics and focuses of many of the same researchers and clinicians during a distinct time period. As one researcher explained,

All of them actually represent probably components of my research...Each of the little connection charts encompass kind of different components of the collaborations I've done. Ranging from I think the first one tended to be more cell biological and biochemical and I think the last one was more focused on kind of the translational.

This description highlights the potential utility of sharing these network visualizations as a tool for starting conversations about the processual nature of translational and team science.

Most researchers responded positively to the network visualizations. They seemed excited to view the visualizations, provide feedback, and highlight connections between themselves and other researchers throughout the university. They also appreciated seeing the overlap between their different fields. Examining these connections between themselves and other researchers and clinicians seems to give many interviewees a sense of purpose. Most respondents were able to draw connections between their research and others they knew or had heard of before but had not collaborated with. It also allowed them to highlighted the impact of their work and its impacts beyond their discipline or academia.

Though the overall comments were very positive, researchers also pointed out several limitations of using these visualizations to examine emerging research fields. Most researchers were able to identify one or two of their key collaborators who were missing from the visualization. Often, these were collaborations that had not yet resulted in an awarded grant or publication, but that had resulted in a grant proposal or conference presentation. A few times the person they identified was involved but they were missing because either they had been grouped into another community or there was a disambiguation error with the data.

Another limitation was the presence of investigators who had either left the university or died in the past three years. Interviewees did not really mind seeing the names of students who had graduated, post-docs who had received positions at other universities, or faculty members who had recently retired. Rather, they often used this as an opportunity to share stories about their past collaborations or their current position. However, interviewees were often upset to see the name of researchers who had passed away recently. Many interviewees were also sad or frustrated to see the names of researchers who recently left for other positions. They explained that though the networks were technically correct, the presence of investigators in their community who were no longer at the university seemed wrong. We tried to remove investigators who were no longer at the university. However, this process was more difficult than we initially anticipated.

Collaborations within these fields were described by interviewees as a way to both improve the quality of their research and ride out the storms of funding in an increasingly competitive market. Many interviewees described the turn taking process of authorship/investigator status that often occurs when publishing articles and writing grants in in long term collaborations. They also highlighted the role that career level plays in collaboration dynamics in terms of status, power, funding, and priorities. Some respondents said that it was often easier to work with those at the same level so their goals were aligned; whereas, others said it was helpful to work with people at different levels to help them cope with funding lulls within the group. Interviewees' research narratives illustrated the role their mentors played in shaping their collaboration style and choices when choosing collaborators. Mentees often mirror the collaboration patterns demonstrated by their mentor, whether consciously or unconsciously.

LIMITATIONS

Using network metrics to select pairs and introduce investigators to one another provides a new and exciting method for testing and evaluating the effects of a pilot program or network intervention. This method has the potential to increase the impact of the intervention. However, it is also important to highlight some of the potential limitations and ethical challenges of applying these approaches to alter networks and their implications for other studies.

Designing a network intervention that alters community dynamics and structures requires researchers to make a series of decisions that have implications for the people and communities they identify, as well as those who are not selected to participate. Community detection and other algorithmic decisions are often marketed as objective criteria. However, as Gregory (2008) writes,

There is no standard definition of community and no consensus about how a network should be divided into communities.

Also, as this paper demonstrates, these methods require individuals to make subjective choices about what and how to measure. These individual choices are also shaped by the priorities and culture of the organizations they are embedded within. Ethnography can help us better understand these choices and their organizational context.

However, it is important to remember that algorithms are powerful and not neutral. There is a great deal of power that comes from creating these algorithms and making decisions based on their results (Lustig et al., 2016). Using ethnographic methods to engage with the community members you are attempting to map and soliciting user feedback can help to reduce this power imbalance and create more realistic models of big data sources. Yet, it does not negate the power imbalance between researchers and participants that is built into experimental design. Therefore, it is important to also acknowledge the potential limitations of these models. Researchers' subjective decisions can have a significant impact on the groups that they map and those that they ignore.

In the case of this study, these communities were used to identify pairs of researchers that would be offered exclusive access to apply for pilot award/seed grant funding. This type of award can make a significant impact in a researchers' career. Thus, providing access to some faculty members over others requires critical decision making and hard choices. Controlling this process provides a great deal of power to algorithm creators (Lazer, 2015). We believe that our network intervention can help to reduce some of the biases of traditional funding mechanisms that have been reported in previous studies (Helmer et al., 2017; Marsh et al., 2008; Lee et al., 2008). However, it also introduces its own bias and challenges. These issues would be compounded if the stake of the intervention were higher. Therefore, it is important to keep these ethical challenges in mind when using community detection algorithms to design interventions.

Planning and implementing these types of interventions also presents many logistical challenges. However, we believe that they can also lead to new ways of fostering innovation and knowledge production across an organization. Incorporating ethnography throughout our research design helped us to gain buy-in from stakeholders and test our assumptions. However, we experienced several recruitment challenges when contacting pairs about participating in the network intervention.

Since the pair's participation is contingent upon their partners' desire to participate, it can be difficult to identify viable pairs. Some investigators were eager to participate but we could not identify an eligible collaborator in their community who was interested in our study. One way to address some of the issues we experienced in our study would be to ask a researcher who knows both members of the pair to introduce them and suggest that they collaborate. A request from an existing collaborator could be more impactful than an email from someone they do not know. Our participant observation and interviews revealed that these types of recommendation from current collaborators often play a critical role in fostering new scientific collaborations and developing rapport between new team members. Future studies could also adopt this type of approach when recruiting users for a site or proposing a new collaboration with another team.

CONCLUSION

Identifying emerging research communities provides a useful method of visualizing team science its network effects. As demonstrated throughout this paper, combining network analysis with ethnographic research can help researchers identify trends and opportunities organizational change. Our mixed method approach improved our knowledge and models of scientific communities by helping us combine insights from big data and thick data (Wang, 2013). Applying an ethnographic lens allowed us to connect scientific collaboration networks

with larger narratives about team science and translational research. Other researchers could also use the network ethnography method to gain a more nuanced understanding of both the network structures and cultural norms of communities they are studying and leverage this knowledge to design better experiments. We believe that using this approach can help organizations track emerging research fields in their industry. It can also help organizations better support existing teams, provide funding to encourage new groups to collaborate on these topics, and translate their findings to the public.

Social network analysis and community detection algorithms allowed our team to create compelling visuals that clearly documented organizational trends in a way that was easy for organizational leaders to consume. Ethnographic approaches helped our team gain the necessary cultural context to develop new perspectives on team dynamics and tell compelling stories about why our intervention was needed and what type of organizational impact we expected it to generate. As expected, our analysis revealed a significant overlap between the research communities we detected and traditional department, colleges, and academic units. However, our participant observation and interviews with community members revealed that interdisciplinary collaborations were central to their research aims. Researchers took pride in their interdisciplinary work in these emerging fields even when it was actively discouraged by their peers or dis-incentivized by their departments.

Understanding both what interdisciplinary research collaborations looked like, how they evolved over time, and why they were so important to both scientists and clinicians helped us to demonstrate to organizational leaders the need for funding and support for this type of network intervention. Other researchers could use a similar approach to identify users' pain points and demonstrate to their managers or C-suite executives the need to invest in their solution. Combining the network visualizations that prove that a problem exists with user stories that demonstrate their pain points helps researchers make a stronger case for their proposed changes.

Soliciting feedback from respondents through ethnographic interviews was a critical part of improving our models to better fit the realities of team science. During the first round, all three interviewees agreed that the models we showed them were too simplistic, focused too much on their long-term collaborations, and were not emphasizing their current research agendas. They were also disappointed that the networks did not capture the diversity of their achievements, especially when these were interdisciplinary collaborations. We were able to incorporate their feedback into the models by shortening the length of time individuals needed to be in the same community. After reducing the time period from five to between two and three years, interviewees responded positively to the networks and reported that they saw them as meaningful representations of their emerging research field. Other researchers often adopt this type of approach when testing prototypes or designs. However, our study shows that researchers could also use this method to iteratively test their plans for experimental interventions.

Sharing these visualizations with researchers transformed the way they looked at their research community and their place within the larger university. They also solicited thick data from scientists on the cultural context on these research communities, which allowed us to improve the fit of our models. Respondents enjoyed seeing their position in the community and explaining the narrative behind why that connection existed and how the collaboration started and developed over time. Respondents were also excited to interact with the models and provide feedback on who was missing and share their explanations of why they might be

missing. It was rather intuitive for them to make connections between their work and the work of others in the group even if they have not worked with them directly. In many cases, people were excited to see that a colleague they knew but had not formally collaborated with was also a part of their community.

Typically, there were only one or two people who they did not know in their research community, especially the one they believed most accurately reflects their collaboration. This finding suggests that these research communities are more than just abstract representations of science but represent real communities of scientific inquiry and connection. They highlight both actual collaborations on grants and publications as well as thought communities that researchers use to disseminate and share their ideas with their colleagues working on related but distinct topics. By modeling five different ways that respondents could conceptualize their research communities, we were able to examine different types of communities and collect ethnographic insights on the group's formation and development over time. Some scientists found the community of their closest collaborators on a specific topic as the most meaningful group. Yet, they also drew meaning from the fact that they were connected to other researchers through a training or larger grant that focused on broader issues. Ethnographic interviewing also allowed us to explore how a sense of belonging shaped a team's research focus, norms, and power dynamics.

These findings have applications for the way that researchers examine online communities. They could be applied to look at the connections between real and online communities and examine how social networks evolve longitudinally. Future studies could share similar networks (based on their interactions with other users or previous tasks that they have completed on the platform) with users and ask them explain what these networks mean to them and how they would change them. These types of interactions with users are critical to understanding their mental models, motivations, and reason why they engage in a particular activity.

Researchers could also conduct a network ethnography within their own organization to improve communication or collaboration across their team or department. It can also help to empower users or team members to share their stories, understand why the current patterns exist, and identify opportunities for growth. Sharing network visualizations with team members can also be a great way of eliciting conversations about collaborations between a team and its leaders.

Ethnographers are always attempting to map new fields and shift the discipline through their research. This paper highlighted the role that network ethnography played in helping our team identify emerging fields and build new teams at a university. We believe this same method could also be applied in almost any field to answer the questions: what are a community's existing structures, why did they develop in this way, and how could we disrupt this structure. Network ethnography can help researchers understand organizational or user patterns and promote organizational or product changes. We believe that network ethnography can be an important tool for helping ethnographers uncover strategic research insights and gain the necessary buy-in from organizational leaders to test their assumptions or scale their work. The process of conducting and sharing data from a network ethnography can also help researchers build strategic partnerships across their organization and make their research findings more tangible. We believe that building these strategic partnerships can be a first step in making the case for giving ethnographic research a seat at the table.

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Papers 2 – Shifting the Disciplines

Consumer Finance in a Mobile Age: Methods for Researching Changing User Behaviour

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Consumer finance markets are being transformed by the increasing mobility of people, products, technology, and information. This presents challenges for understanding changing consumer behaviour and building adaptable business models. Researchers are rising to meet these challenges by adapting their frameworks and methods to take account of mobility's effects. I present three cases of method adaptation to consumer finance research (financial diaries, object-centred interviews, social network analysis) and discuss their contributions. The complexity and personalisation of consumer finance requires us to not only be more creative with how we approach research, but also more robust in questioning our assumptions, framing appropriate questions, and designing research that draws frameworks and methods from multiple disciplines.

One can only understand and apply all these new innovations by playing close to the ball and understanding customers' needs and expectations. It is no longer possible to say what the world is going to look like five years from now. In the past, bankers were 'scenario thinkers,' who ran the bank by making strategic choices far in advance. Today, we have to grant more space to short-cycle thinking and optionality. (Alexander Zwart, Senior Product Manager at Rabobank, quoted in Ifrim, Mual and Innopay 2017)

INTRODUCTION

Gone are the days when consumers did their banking in their local village or "high street": instead, products and providers can (within regulatory and practical limits) reach consumers anywhere around the globe. People access financial services and information as they move around their cities or travel internationally. A person can pay their credit card debt while riding in a train, do their grocery shopping online as they sit in a café, bet on a football match while perched on a public toilet, or buy illicit drugs using Bitcoins as they head out for the night. Along with people and products, information is also far more mobile. People can find extensive product information online, and they can share their personal information far more easily. Business models are also changing, because the "unbundling" of banking, new technologies, and regulatory reform make it is easier for start-ups with highly specialised products to enter the market.

These changes make both the supply side and demand sides of the market more difficult to understand, presenting challenges for understanding changing consumer behaviour and building robust business models (CGI 2014, Muller et al. 2011, Xiao 2008). It is impossible to predict the future: we cannot foresee how consumers will respond, which service providers will come to dominate the market, or what new technologies will threaten data protection methods we currently view as fool-proof.

Zwart (quoted above) and others have argued that, given this uncertainty, our best bet is to focus on what consumers are doing and how their practices are changing. This approach makes sound business sense, since it is consumers, after all, who make purchasing decisions.

However, it makes one critical mistake: it assumes that “consumers” are somehow separate from “the market.” But they are not. (Nor are consumers necessarily individual people, but that is a matter for another paper.) To understand what consumers are doing, we need to know as much about market characteristics and trends as we do about consumer themselves. A consumer-centric approach should not end at the front door of the household. It should consider consumer behaviour within market contexts, however messy.

Prediction *per se* may be out of reach, but we can anticipate likely futures if we adapt our conceptual frameworks and methods to the current state of the market. This will help us plan for risk mitigation while creating products and platforms that benefit society. To do so, it is useful to understand how the market is changing and why. I argue that the root cause of changes in the market for consumer finance is the increasing mobility of technology, products and services, information, and people. I present a framework that takes mobility into account in consumer finance research. First I discuss why mobility is a central feature of money, and explain how it is transforming consumer finance practices today. Second I assess some adaptations of methods to consumer finance research. Finally, I argue that since mobility is generating more market diversity, a greater number of research problems are located in the long tails. This means we are unlikely to find answers through research that takes a normative, business-as-usual approach. Instead, we should look more broadly across methods, disciplines, and professions for clues that can help us shape robust research.

CONSUMER FINANCE ON THE MOVE

Consumer finance globally is undergoing a transformation resulting from the increasing mobility of people, products, and information. These changes make both the supply side and demand sides of the market far more difficult to understand, presenting challenges for understanding changing consumer behaviour and building robust business models. The digitization of financial services and the near-universal penetration of the Internet has transformed the market for financial services for both consumers and financial service providers alike. Digital financial services are integral to the transformation of consumer finance from something that happens within domestic market, defined by national borders, to a practice that integrates (or implicates) people, providers, and regulatory bodies around the globe.

For consumers, the proliferation and specialization of financial services means that they are no longer limited to using local providers: instead, they can choose between products and services from around the world. While many people still choose to use local products, the trend is towards the diversification on all fronts: products, providers, point of origin, and so on. For service providers, the ability to access both consumers and other businesses through the Internet has transformed business models. While traditional retail banks retain a strong position in consumer finance markets, they need to partner with other providers in order to retain access to consumers, and innovate new products and services.

This increasing mobility and market transformation is partially a manifestation of globalization. However, financial products and services present a special case, because financial instruments have always depended on mobility in order to function. Money, whether in the form of coins, shells, banknotes, tally sticks, promissory notes, or digital currency, has to be transportable if it is to be used as a means of payment between

geographically distant buyers and sellers. Shifting to electronic money increases money's functionality and transaction speed, but it does not introduce a new feature to money.

Mobility also drives the spread of financial technologies around the world. When people migrate beyond their locales, they take their monetary technologies with them. From as early as the 16th century, global trade propelled the development of financial tools, including promissory notes and the stock exchange. By the mid-1800s, telecommunications systems, such as the trans-Atlantic telegraph, were used to wire money internationally (Stearns 2011). For the first time, monetary values no longer needed to be moved in the form of tangible material things, such as paper or metal, but instead could be sent in the form of an electric current. Hence the basis for digitization was born. By the early 20th century, the coins and banknotes that we recognize today had come to dominate over alternative forms of money (such as shells, livestock, and precious metals).

During the second half of the 20th century, consumer finance in wealthy countries underwent a process of centralization as people came to rely on banks to supply all their financial needs, including savings, cheques, personal loans, mortgages, and life insurance. Thus retail banks took up a prominent role in the development of formal financial products and services globally. For decades, in many countries everyday banking primarily involved visiting a bank branch in one's local town. Other financial services providers existed, including international money transfer services, insurance companies, pawnbrokers, and loan offices, but they rarely threatened the monopoly of banks.

The dominance of retail banks was shaken by the spread of mobile devices and Internet access (Maurer, 2015). Retail banks continue to dominate consumer finance, with annual revenues amounting to around \$3.4 trillion globally (McKinsey 2012). However, transactions are increasingly digital and international, and this creates a basis for the proliferation of services beyond banks. The World Payments Report 2013 states that in 2012 there were around 333 billion non-cash payment transactions, and that m-payment transactions are expected to reach 28.9 billion in 2014 (CapGemini 2013). In 2012, global remittances reached \$401 billion (World Bank 2015). At least as important as revenue and transaction figures, are the numbers of people served. There are around five billion adults around the world using financial services, of which approximately two billion adults worldwide are without a formal bank account (World Bank 2015; Demirjuc-Kunt 2012). Nearly all adults in the world—and many minors—consume financial products and services. Even my fourteen-year-old niece bought travel insurance on her iPhone before heading away on a school trip.

In the more traditional retail sector, consumers are still provided for by retail banks, credit unions, mortgage brokers, and payday loans companies, among others. At a national level, the digitization of finance has resulted in an increase of domestic products and providers, such as transport cards, online payment systems, and digitized parking meters and applications. At a global level, consumers can access a wide range of monetary and finance tools, including Google Wallet, Paypal, Bitcoin, money transfer services, insurance products, and investment advice. Newer, non-bank industries include payments services, mobile banking, mobile money, e-wallets, and microcredit.

In countries with large “unbanked” populations, the technologization of finance is helping people to skip the transition from retail banks to other service providers altogether. Extending banking networks to cover larger geographical areas requires a great deal of infrastructure and investment. Instead of investing so heavily in banks, basic financial

services are being offered through microfinance agencies and mobile phone-based systems. Mobile money is an example of banks partnering with mobile money operators (MMOs), often telecommunications companies, to provide basic banking services via ordinary mobile phones. Mobile money gives people access to a range of services under the one platform, including domestic and international transfers, merchant payments, savings accounts, insurance, and credit. These services replace or complement a wide array of informal services, speeding up transactions and reducing costs.

Consumer finance service providers have become dependent upon business-to-business collaboration. Just as the apparel industry has long outsourced production throughout a widely distributed value chain, so is consumer finance moving from a situation in which retail banks offer a full-service model to the radical specialization of production and distribution. Rather than building all their products and services in-house, banks increasingly partner with third party providers, either to reduce costs or avoid being left behind. In the past, strict regulations and the need for substantial start-up capital limited financial service providers to a mere handful for each jurisdiction. Today, however, it is far easier for new players to enter the market in most countries. This is partly due to the relaxation of regulations, and partly due to the fact that technology makes it far easier to bring products to market and reach consumers. Non-bank providers have a several advantages over traditional banks, including low overheads, limited capital requirements, no legacy systems, and often a more flexible corporate culture. In response, banks have had to alter their business models. Banks will probably continue to play an important role in this market, but the interfaces (APIs) behind the software customers use to access services will increasingly be branded with non-bank names.

The development of this post-Fordist production chain is still very much incomplete, and there is a great deal of uncertainty in the market. First, the instability of regulations means that it is risky for companies to plan for the future, since they do not know what products and services they will be permitted to provide, how to provide them, or to whom they can market them. Second, despite intense speculation by fintech analysts, it is far from clear which companies will emerge as the dominant financial service providers. Business must speculate on where their main competition lies, and which companies they would best collaborate with. Third, while data analysis can identify current trends, the market is simply too complex (and extensive) to make robust predictions.

Consumer behaviour is particularly difficult to predict, since it is necessary to both quantify trends and understand how people make choices with respect to their current and future needs. Yet we have little idea which directions these transformations will take, or what issues consumers will encounter in the near future. Technologists have a tendency to be optimistic when it comes to imagining the future of financial consumption, especially when it comes to imagining the potential of innovative technologies such as blockchain and product APIs. Yes, it is true that there are some exciting financial technologies and products appearing on the market, and promises of further innovation. Yes, it is true that many consumers are experimenting with new kinds of products and services, and that their choices expand substantially when they can access a global marketplace. But in their optimism, some technologists idealize what is possible without sufficiently taking into account actual human behaviour, which often follows a different set of norms and rules that don't fit into either old or new business models.

Promises of beneficial change need to be considered alongside consumers’ risk profiles, limitations, and preferences. Risks to consumers will arise from technological innovation and new ways of consuming products. For example, some experts are concerned that innovation in financial product APIs present risks to security and privacy. Informed consent is a big issue with respect to data, especially for consumers who are less technologically literate. As Gijs Boudewijn (2017) of the Dutch Payment Association notes:

It is likely that it would be very difficult for consumers to understand the multiplicity of ways in which they could access their account information, depending on the providers and/or the interfaces used by those providers, and therefore to understand the implications of giving consent.

Another limitation long noted by experts and financial institutions is that financial products are known to be “dissatisfiers,” products that people aren’t really interested in, but which they must use to achieve other ends (e.g., paying for insurance online). If people are uninterested in financial products, will they embrace the choices that open banking and financial service diversification offer? Or will they keep using the same old products in the same ways as before? Which kinds of consumers will diversify their choices, and which will not? Who will benefit and who will be exposed to greater risk? Consumer finance researchers are faced with the task of tracking these diverse and complex changes and predicting their effects.



Figure 1. In Haiti, people send money and make payments using an ordinary mobile phone. Photograph © Erin B. Taylor.

MOBILITY AS A CENTREPIECE IN FRAMEWORKS AND METHODS

Understanding consumers in a complex and volatile market requires us to broaden our framework. Asking a research question at the micro level, such as “Do customers prefer the orange or red logo?” makes perfect sense when making specific design decisions, but it does

not ultimately help us to understand why people do the things they do in a complex and fast-changing market. We must be open to choosing methods that work, rather than sticking with methods we are used to. Many, if not all, of the changes occurring in consumer finance have some kind of mobility consideration at their core. We can classify these mobility questions into four different kinds:

Table 1. Mobility framework for consumer finance research

	Effects	Benefits for consumers	Business challenges
Technological mobility	The universalisation of mobile devices and Internet access impacts business models and consumer practices	<ul style="list-style-type: none"> - Improved platforms for service provision - Services have more functionality - Services are mobile 	<ul style="list-style-type: none"> - Designing products for now - Designing products for an unknown future - Understanding how users adapt to changing technologies - Security & fraud
Informational mobility	Consumers can access information about a diverse range of financial services originating from around the globe	<ul style="list-style-type: none"> - Increased ability to make informed choices - Increased peer-to-peer communication about products, services, providers 	<ul style="list-style-type: none"> - Getting product & service information to consumers - Competing in a crowded informational market - Information quality - Understanding who consumers trust and why
Product / service mobility	Consumers can purchase financial products and services from around the globe	<ul style="list-style-type: none"> - Increased choice of providers - Greater range of products / services - More specialised products / services 	<ul style="list-style-type: none"> - Global market segmentation - Identifying competitors in unfamiliar markets - Getting services to distant consumers
Human mobility	Greater number of transaction locations / people influence financial practices as they migrate and travel	<ul style="list-style-type: none"> - Lowered transaction costs - Increased convenience - Increased peer-to-peer influence 	<ul style="list-style-type: none"> - Meeting needs of consumers who travel across borders - Serving shift to mobile financial management

Innovative methods in consumer financial research can better illuminate consumers' thought processes and practices as they adapt to a shifting market, and also help businesses to adapt their product development and business models. Researchers from both industry and academia are innovating new ways to record and analyse the financial behaviours of individuals and households. Quantitative approaches that make use of massive amounts of personal data have received a great deal of attention for their ability to illuminate behaviour and identify market trends. Rather than repeat the many discussions on the value of "big data," in this paper I focus on innovations in qualitative methods (some of which include quantitative components). Methods such as ethnography, interview methods, financial diaries, online / offline studies, experiments, and social network analysis are being reconfigured to account for the increasing mobility of products and services through accessible digital spaces and technologies.

Qualitative methods are particularly adaptable to researching in fast-changing environments because they are open-ended, which enables them to be adapted to changing circumstances in the field. They are also specifically designed to look at the larger context in which human behaviour occurs. For example, in our research on mobile money use in Haiti, my colleagues and I watched how people made transactions on their phones, talked with them about why they made certain choices, and followed them as they went about their daily life to witness what circumstances prompted certain behaviours. We also tested the mobile money infrastructure ourselves in dozens of locations, talked with regulators and telecommunications providers, and analysed mobile network maps. Ultimately all this information fed into a report, *Mobile Money in Haiti: Potentials and Challenges* (Taylor, Baptiste and Horst 2011), in which we mapped out the possibilities for the future of mobile money, given the current state of the market, infrastructure, regulations, and consumer needs.

Below I describe recent adaptations of qualitative methods to explore mobility issues in consumer finance, presenting three methods and case studies that were originally described in the *Consumer Finance Research Methods Toolkit* (CFRM Toolkit) (Taylor and Lynch 2016), a collaboration between Canela Consulting and the Institute for Money, Technology, and Financial Inclusion (IMTFI). All of these methods and case studies are "ethnographic" in that they pay attention to context and incorporate a range of methods or sub-methods within a single research project. I briefly summarize the methods, present the case studies, and discuss their implications for understanding the effects of mobility on consumers' financial behaviour.

Financial Diaries

Many assumptions about how people manage their finances are incorrect or misguided. Financial diary studies are an excellent tool to investigate how a household manages its entire financial portfolio, and tend to excel at overturning our assumptions. This was well demonstrated by the *Portfolios of the Poor* financial diary study (Collins et al. 2009). First, this study demonstrated that poor people's financial problems do not generally stem from financial mismanagement. Rather, they stem from a lack of resources. Second, it showed that people are highly adept at combining a diverse range of formal and informal tools to manage scarce resources. Third, it demonstrated that people use financial tools in combination, not in isolation. If we focus on how people use a single tool, rather than how they manage their

entire “portfolios” and toolkits, then we run the risk of misunderstanding how and why they choose certain tools.

Briefly, financial diaries are a method of collecting data on financial behaviours by using a “diary” to record transactions. The financial diary method was pioneered in the late 1990s by a group of researchers with expertise in economics, finance, anthropology, development, and architecture (see description in Taylor and Lynch 2016; see also Collins et al. 2009). The method has since been applied by numerous social scientists working in different parts of the world.

Generally, financial diary respondents are given a structured set of questions that record both qualitative and quantitative responses. Questions are generally designed to prompt respondents to report on both formal and informal financial activities and how these fit into the context of a participant’s life. The diary format makes it possible to include creative ways for respondents to answer questions. This is particularly the case for self-reported diaries. Respondents can be asked to provide an array of low-tech or high-tech information types, including written answers, numerical answers, choosing from a scale, drawing pictures, generating maps, adding photos and videos, and attaching documents such as bank statements.

Tracking what instruments people use in the course of a week, month, or year provides valuable information about how people choose between financial instruments depending upon the time of day, location, and the activity they are undertaking. When tracked for long enough, it can also show how, when, and why people add or discard financial instruments from their toolkits. Are customers dissuaded because a new service has features they don’t like? Or do they feel they already have something in their financial toolkit that performs a similar service? Examining people’s entire financial toolkits over time gives us a chance to answer these questions.

Because financial diaries examine entire portfolios, they are an excellent method to investigate the effects of digitisation on consumer behaviour. As consumer finance goes digital, it is becoming more difficult to pinpoint what people do and why they do it. We know that people use a far wider range of services than just banks. We know that consumers are likely to benefit from greater choice. But digitization also presents new (or enhanced) challenges and risks. Will literacies (financial, technological, informational) become a greater challenge, as people have access to more information and services via devices? Where does fraud risk stem from, and who will be most affected? How will people expand their financial toolboxes, and why? Will they continue to use non-digital services, even if digital options are available? How will they combine tools from online and offline, formal and informal sources?

Case Study: Financial Diaries and Household Management – Alexandra Mack, a Research Fellow at Pitney Bowes, conducted a financial diary study as part of research into financial communications management in the United States. Mack was interested in how “financial communications” impacted financial management within a household. She had already used other methods, including interviews and scrapbooking, to collect data on financial behaviour. The financial diaries were an opportunity to dig deeper into some of the issues she had discovered, such as how financial management varies by life stage, and factors that impact attitudes toward new technologies for managing finances.

Mack's financial diary was conducted entirely online, using software called Revelation. Participants were able to record their diaries in their own time over the course of a week. They were required to log in to the site each day and complete a variety of activities. These included answering questions, keeping logs of some financial interactions, and having group discussions with other participants. They would also take pictures using their digital camera or camera phone and post them to the project site.



Figure 2.
The online financial

diary study asked people to upload photos of their financial management systems. This household used envelopes to store receipts for tax purposes. Photograph © Alexandra Mack.

Participants were asked to report every day on communications they received from banks and billers, as well as on financial interactions other than shopping. Other questions asked participants to discuss their use of mobile applications, practices around bill payments, and their experiences with fraud. In group discussions, participants were asked questions such as, "What annoys or bothers you most about your financial communications?"

Mack found the method suitable to draw a broad picture of people's financial behaviours, the products they use, and their financial communications. While not longitudinal, she was able to ask questions about changing practices and what prompted shifts in individuals' behaviours. Because the interactions lasted over several days, Mack could query the subjects on different topics that might have felt disconnected if asked back to back in an interview. What began as a study of financial communications evolved into a larger project around financial management.

What can companies learn from Mack's experience? Like *Portfolios of the Poor*, Mack's findings show that people's financial behaviours are complex and dynamic. Her study provides insights into mobility by demonstrating that people's financial communications incorporate a wide variety of online and offline sources and media: shopping receipts, mobile apps, computers, letters in the mail, and so on. Some of these are not financial services per se, but are part of the supporting cast that makes transactions work. Her results show that understanding the impacts of digital finance require also looking at practices in the "analogue" world.

Object-Centred Interview Methods

In object-centred interviews, props are incorporated into a verbal interview with the goal of prompting conversation on particular topics. The interviewer may introduce objects, such as a product prototype or flash cards, or objects may belong to the interviewee, such as the contents of the interviewee's wallet or the devices they use for banking. These interviews may take place in people's homes or in public places (e.g., to learn how people manage money while on the move).

Object-centred interview methods are particularly useful in consumer finance research because personal and household finances can be complicate and messy, and focusing on concrete material objects can help people to recall their financial management procedures. People often have multiple income streams, combine incomes, or help manage the financial situations of family members. Business records may or may not be kept separate from personal finances. People rarely keep all their financial information in one place, and find it difficult to explain their financial management processes to others. When you ask people to show you their spreadsheets, credit cards, bills, mobile apps, and other financial instruments, it prompts them to remember how their own finances work. If we want to generate insight into what kinds of financial products people might need, then we need to know what they currently use, and we can only know this if we ask the right questions, in the right way.

Like financial diaries, object-centred interviews are useful to map out entire financial portfolios. But whereas financial diaries rely on verbal reporting, object-centred interviews allow the researcher to discuss the physical properties of objects. Benefits include eliciting conversation about how objects are used and why, prompting people to remember what products/services they use and how they use them, and assisting the participant and researcher to discuss visual, audio, tactile, and haptic aspects of objects. Consumers can show researchers what they do or don't like about a particular product or service, and can explain why they feel the way they do. Much has been written about "financial literacy" as a barrier to money management and technology adoption, but often people's reluctance has more to do with user experience, trust in the provider, a fear of facing their money head-on, or many other factors. Questioning interviewees about products they do like can elicit insights into what products features encourage usage. Conversely, questioning interviewees about products they don't like can shed light on whether there are design issues or other factors at play.

Object-centred studies also have many benefits for researching mobility in consumer finance. These days, there are few financial transactions that individuals cannot complete while away from home, using a combination of their mobile phone, bank cards, cash, store cards, and discount cards. When away from home, people use their phone to check their bank balances, transfer money, pay their friends, check in and out of public transport, and use an array of apps to make investments, shop, and so on. Some people still prefer to make purchases and do online banking using their computer rather than their phone, but my current "portable kit" research in the Netherlands (in its early stages) indicates that even when people are at home, they would rather use their phone to complete transactions than have to get off the couch and go to the computer. This example is somewhat ironic, because the mobile phone allows people to be less mobile rather than more (they can stay on the couch!). Yet it is the very mobility of the mobile phone that permits users to stay immobile. Material objects play a critical role in shaping new financial practices.

Case Study: Using and Studying Objects to Track Finances – Jofish Kaye from Yahoo Labs and his team in the San Francisco Bay area conducted a preliminary study with fourteen interviewees, aged 26-29, with incomes ranging from US\$18,000 - US\$150,000 per year. As described in their paper, “Money Talks: Tracking Personal Finances,” the team incorporated multiple object-centred exercises to try to piece together a picture of participants’ financial management.

Kaye and his team wanted to explore the range of ways in which people keep track of their finances. They devised an interview structure that incorporated a range of static and interactive objects, including financial maps drawn by interviewees, financial calendars filled out by interviewees, index cards with text for interviewees to choose and discuss, the contents of interviewees’ wallets, guided tours of interviewees’ homes, and computers and mobile devices used for financial management.

Few of the interviewees had a comprehensive idea of their own financial situation. In fact, many reported keeping their financial information in their head—a location that is certainly not suitable for object-based interviews. As Kaye and his co-authors recount, “the most common tool that people used to keep track of the overall state of their finances was nothing at all. Even in cases where interviewees used computer programs, mobile device applications, excel spreadsheets, and paper-based accounts to track financial flows, they rarely tracked every aspect of their finances. For example, one photographer tracked her business expenses but not her personal ones, and a mother tracked her college-aged children’s credit card use but did not track details of her own expenditures.



Figure 3. People typically carry an assortment of cash, cards and receipts. Photograph © Jofish Kaye.

Contrary to traditional economic schools of thought, the researchers point out that interviewees engaged in behaviours that seem “irrational” if considered from a purely

financial perspective, but which make sense when other social norms and values are taken into account. They explain:

People make financial decisions based on their emotional, historical, familial and personal backgrounds in addition to financial considerations. (cited in Taylor and Lynch 2016)

Overall, this study indicates that people's methods of financial management are dictated by what is important to them, and may have little or nothing to do with optimal financial decision-making. When trying to understand people's financial behaviours, then, it is important to explore their motivations. For example, these days there are many tools for consumers to track their finances (such as Mint or Bill Guard), but few people use them. Why not? Kaye et al's research suggests that people's reluctance to use these tools is not necessarily irrational, even if it would bring them more transparency and visibility over their finances. But choosing new financial management tools, and learning to use them, entails transaction costs. It takes time to work out which tools are suitable and which providers can be trusted with one's data. It then takes longer to test out a tool, figure out if it fits with the household's financial flows and needs, and incorporate its use into everyday life. Why would a consumer take on new, specialized products if it just means one more thing to think about?

No matter how good financial management programs and apps are, consumers won't necessarily adopt them if they perceive other barriers to exist (e.g., transaction costs, trust, workflow). Object-centred interviews give consumers a chance not only to talk about the issues they face using their current financial tools, but also to explain why they might not use other tools, and show the researcher what kinds of stumbling blocks they encounter. This is critical because it helps us identify scenarios in which a "failure" to stay "up-to-date" is not a failure at all, but an expression of a preference or a practical choice. Seen in this light, the terms "early adopter" and "laggard" are misnomers. Rather, the laggards are the practitioners who refuse to understand the user's point of view and adapt our frameworks and methods accordingly.

Social Network Analysis

An interesting application of interview techniques is in the analysis of social networks. In social network analysis (SNA), interviews and surveys are used to collect data on networks, which can be analysed either qualitatively or quantitatively. Quantitative interview data can be used to map nodes and connections in social networks. The resulting visualisations are an excellent way to see clearly who is connected to whom, and whether a social network is open (loose connections) or closed (close ties among group members). Qualitative interview data can be used to explain what drives social networks. For example, interviewees can be asked to explain why particular connections exist, how they are maintained, and how they have changed over time. In other words, whereas the quantitative data tells the "what," qualitative data tells the "how." As anthropologist Sibel Kusimba explains:

Social network analysis is good because it reveals different kinds of social relationships. It also provides quantitative assessments in terms of size and number of ties. These can also become apparent through ethnographic interviews but SNA makes it clearer. We need both because the ethnographic interviews give context. It's also good to follow up SNA and do another study in a few years (or other appropriate time frame) because then you can see the social network change. (cited in Taylor and Lynch 2016)

Social network analysis is particularly useful for studying patterns of circulation, such as remittances, conditional cash transfers, gifts, and other forms of payments. It is handy for analysing mobile money transactions, in which users are often individuals who send and receive money for social purposes as much as for economic ones. It shows not only who is connected to whom, but also demonstrates how and why money moves across large geographic areas.

Case Study: Social Network Analysis of Money Circulation in Kenya – Sibel Kusimba and her colleagues conducted a study of mobile money in Kenya, where at least 60% of adults are unbanked. Mobile money was launched in Kenya in 2007 and is widely recognized as the world's most successful mobile money service. Kusimba and her team were interested in discovering how rural Kenyans were networked through mobile money and the reasons why they sent money. They wanted to find out whether common assumptions about mobile money—that it empowers individuals, stimulates entrepreneurship, and reflects rural-urban migration patterns—reflect Kenyans' experiences of using mobile money services.

The team undertook research in rural Kenya in 2012. They conducted participant observation, research interviews, and survey questionnaires with more than 300 Kenyans, 80% of whom were farmers. They also conducted interviews with a smaller sample of Kenyans living in Chicago. The researchers carried out different kinds of interviews to elicit qualitative and quantitative data.

In-depth interviews provided background and contextual information about people's experiences, feelings, social lives, and economic practices. During interviews, the researchers drew up kinship charts. They asked interviewees to tell them to whom they had sent money in the last year and who had sent them money. For the quantitative part of the study, the team interviewed between 3-10 individuals from 14 families. Each interviewee was asked to name all of the relatives that they had sent money to, or received money from, in the previous year. Most interviewees had sent money to 5-9 people. Where possible, the researchers then contacted the individuals that had been mentioned, and approached them for an interview as well. They entered the resulting matrices into R, statistical computing software that can be used to draw social networks diagrams. They could then map out the directions and frequencies of money flow, and to understand the relationships that remittances mediated.

Kusimba and her team chose to ask people to list the names of people they had transacted with rather than the amounts of money they had sent. There were two reasons for this. First, people tended to be inaccurate in recalling quantities of money. Second, many people did not like to talk about money directly. This was especially the case with men who would organize large ritual ceremonies that could cost up to 26,000 Kenyan shillings. Whereas women would admit that they asked family and friends for financial assistance, men preferred to say that they had collected debts owed to them.

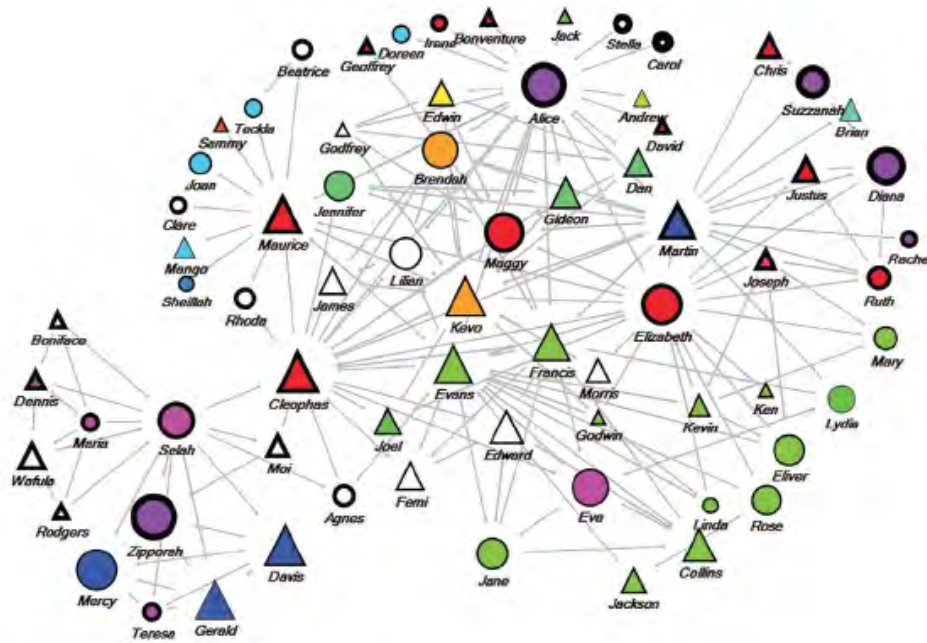


Figure 4. A visualisation of a remittance network in Kenya, generated by social network analysis. Photograph © Sibel Kusimba, Yang Yang, and Nitesh Chawla 2015.

Kusimba notes that, for her research, the primary benefits of social network analysis were:

- Visualisations help them to clearly see and analyse the connections in a way that is difficult or impossible with interviews
- They could tell which networks were “open” or “closed”
- They obtained a sense of who was “brokering” the gaps in networks
- As SNA is a statistical technique, the networks could be examined in terms of size, number of ties, and other parameters

Social network analysis has limitations as well as benefits. Like any model, it simplifies reality, collapsing a lot of information about family ties and obligations. People send money for a variety of reasons, including deep kinship ties, social obligation, or as a debt, but these differences are not generally visible in social network models (unless survey data are well-complemented by interview data). Whereas social network modelling shows what people do, in-depth interviews demonstrate why they do it.

Methodologically, networks drawn from interview data need to be treated as samples. People forget or intentionally omit their connections for various reasons. Like any other kind of ethnographic information, information needs to be verified wherever possible by talking to the people who an interviewee says they have sent money to or received money from. This sometimes yields contradictory information, but can also improve certainty as to the accuracy of data if different interviewees’ accounts agree.

The team's combination of qualitative and quantitative analysis of social networks resulted in a wide array of discoveries. Many of the findings contradict common assumptions about how mobile money operates as a social and economic tool:

1. The assumption that primarily “individuals” use mobile money to conduct person-to-person transfers or for their own particular purposes, such as saving money. In contrast, the study argues that it is better to conceptualize mobile money as created by collectives and groups.
2. Promoters of mobile money for development often represent the service as a tool that empowers people both socially and economically. Sending money via a mobile phone can present a significant reduction in economic and transaction costs compared to other kinds of financial services. However, most people use mobile money to reach out to their traditional networks, not to create new ones or invent entirely new practices. Moreover, its functions and uses are sufficiently different from those of mainstream banking that it does not act as a close supplement.
3. Mobile money is often seen to benefit women because it provides a way to make transactions privately, and this can help women gain some autonomy from their husbands and other men. But while women tend to receive a large share of remittances, they often view mobile money as something that helps them cope rather than empowering them. This is because productive wealth is tied up in land and stock, which are predominantly controlled by men.

SNA has many potential applications in consumer finance, as it can be used to track all kinds of mobility, and through any conceivable actors. As well as showing how money circulates (product / service mobility), it could easily be used to show how information moves through a network, which would be highly useful for demonstrating how word-of-mouth contributes to service uptake (e.g., friends and family recommending services to each other).

On the supply side, SNA could be used to map out business relationships and show how they change over time, helping us to understand how business collaborations are changing, and how different sized businesses work together (e.g., start-ups, medium-sized enterprises and large enterprises). It may also be used to track how talent flows around the market, which may help solve the chronic labour shortage problems that plague technology in particular.

In short, when implemented robustly, SNA can be used to show how just about anything moves around and why. SNA is perhaps our most useful predictive tool due to the way it combines qualitative and quantitative information.

PUTTING THE PIECES TOGETHER

Mobility is at the heart of money itself and many of the practices that drive consumer behaviours, business models, technological development, and the dissemination of information. Most importantly, mobility is changing the structure of consumer finance markets. More diversity among providers and products means a greater range of problems to solve. By definition, this entails a flattening of the bell curve, such that fewer problems are falling within a normal distribution, and instead are tending more towards the long tails. This

means that we can no longer rely on our standard ways of thinking and research methods to work.

For many years now, people have been urging us to “think outside the box,” but what people mean by this is rather unclear and unhelpful. We generally associate out-of-the-box thinking with being creative, coming up with new ideas, and innovating. But we actually need a far more robust approach than this haphazard means of generating ideas and solutions. We should not rely on chance to guide our research, but instead on a solid, comprehensive knowledge of different frameworks and research methods. Otherwise we will continue to look hopefully, yet hopelessly, towards normative sources of information—the media, self-styled thought leaders, and large research consultancies—which cannot provide us with the information we need. Research reports by the likes of Deloitte, Capgemini, and PWC provide useful analysis, but they depend upon in-house surveys and normalised data sets to make their claims. Their reports largely address problems that fall within the bell curve, not in the long tails. This means they miss critical information for businesses facing highly specific problems.

Take, for example, a widespread issue in the insurance industry. Insurance professionals complain that they struggle to sell insurance products because people don’t want to think about their own death. Yet historical and contemporary evidence from social science research indicates that this assumption is wrong. Geographically and historically, life insurance has been one of the most *popular* insurance products. Could it be that there is no ‘natural’ fear of either insurance products or death that is deterring people? Perhaps people’s aversion to life insurance is due to something else; for example, distrust of insurance companies, a dislike of the way product information is presented, or perceptions of choice.

The only way that an incorrect assumption such as this can be overturned is by adopting a rigorous approach to asking questions, and being prepared to look to a wide array of knowledge sources for clues. Many academic disciplines have critical things to say about human behaviour and our changing world, and a wide range of methods with which to generate, ask, and answer questions. For example, there are many disciplines that already produce research that can quickly challenge our insurance salesman’s assumptions, including sociology, anthropology, political science, computer science, psychology, and behavioural economics. But we cannot blame the salesman—finding this research is not his job. Businesses working in consumer finance do not usually have in-house expertise in methods and frameworks, and even if they do, trawling through this research and learning about methods accrues far too many transaction costs to make it a viable proposition.

In contrast, research professionals armed with a broad and robust knowledge of contemporary consumer research and a wide variety of methods are in a strong position to ask pertinent questions regarding how consumer finance markets and consumers are behaving, why, and what likely directions markets are headed. There are many ways this can be achieved. The mobility framework I have presented in this paper is one tool to generate questions relevant to understanding chances in consumer finance.

As the case studies show, most methods geared towards understanding mobility produce data that covers different kinds of mobility: technological, informational, human, and product / service mobility. Social network analysis can be used to track the movement of virtually anything, and is especially valuable because it can show what flows (whether tangible or intangible), where it flows to, its direction, frequency, and quantities, and the relationships between people sending things to each other. Its potential value for consumer

finance research is immense, since so many business problems are affected by mobility issues.

Like social network analysis, financial diaries can collect both qualitative and quantitative data and link them together. Their main value stems from the fact that they are used to collect data about people's entire financial portfolios and toolkits, and can track how these change over time (and why). They could also be adapted to investigate informational mobility, if questions are included that ask people what they know about different products, services, companies, trends, and so on. Compared with SNA they are less adept at examining human mobility, but they could easily be coupled with SNA to produce similar network data. Similarly, when used alone they do not generally do not produce much information about user experience, but they can be adapted to include more in-depth and object-centred interview methods.

Whereas SNA and financial diaries focus more on flows of information and money, object-centred interviews focus on material things. As such, they are especially useful for investigating how people use certain financial products and services, or manage documents and information relating to those services (e.g, receipts, bills, etc.). They are also useful for examining how people use financial tools while on the move, such as using phones, cards, and cash in public places.

We still have little idea how the shift from computer to "portable kit" (usually phone, cards, and cash) is affecting financial management. What happens when people transact in public? Do they make different purchasing decisions when they can manage their finances while in a shop? Are they more or less aware of what they spend when they use contactless payment versus ordinary bank card or cash? Are people exposed to greater or lesser risk of fraud or theft when their payments are digital? There is unlikely to be one universal answer to any of these questions, since people's preferences and personalities are diverse. But object-centred interviews can demonstrate the range of ways in which people respond, and help us think about what products to develop for whom, and how to build safety features into products and services.

Ignorance drives our creativity, argues neuroscientist Stuart Firestein, but it is our professional knowledge that helps us frame good questions. The very mobility that is reshaping consumer finance practices also makes it possible for us to access the information we need to expand our professional capacities as knowledge experts.

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PAPER SESSION 3

Vantage Points

Curators: MARTIN ORTLIEB & ELIZABETH ANDERSON-KEMPE, Amazon

This session explores multiple vantage points on ethnographic practice. The authors 'push' at the limits of what ethnography can be, how it can be done, and by whom it can be applied, by experimenting with theories, methods and new forms of engagement.

From their particular perspectives, the authors emphasize how circumstance and context shape research work. This focus causes us to reflect critically on our own frames of reference. For example, we are challenged to take a stance on the liberating and/or constraining effects that organizational cultures can have on how research for product and service development is practiced and received. We investigate the opportunity for ethnography to cross-fertilize with other methods like remote usability testing as a way to create hybrid approaches to data gathering. We learn how applying analysis frameworks such as material engagement theory can provide a different shade of analysis to ethnographically gathered data. And, we become immersed in a story of how the interactions between two grassroots experiments to address the root causes of financial exclusion can suggest a blueprint both for 'designing for social impact' and for expanding the audiences of research insights and outcomes.

The authors break new ground, and in so doing, they test whether there is solid ground for these advances. Their work opens a debate about the potential for expanding, redefining—and reinventing—the ethnographer's toolkit. As a result, they extend our community's understanding of the work we do and the types of outcomes we can deliver.

Papers 3 – Vantage Points

When ‘The Emperor Has No Clothes’: Performance, Complicity and Constraints on Communication in Corporate Attempts at Innovation

JOSH KAPLAN

When ethnographic or market research is employed to help de-risk potential products and services, the focus is typically on understanding markets, cultures and contexts external to the organization that would launch them. This paper shifts the focus to the sorts of organizational practices, beliefs, and dynamics inside large corporations, which can create the conditions in which new products are brought to market despite evidence of their risk of failure.

Keywords: Innovation, New Product Development, Ethnography, Risk

[CEO at a town hall meeting, announcing an upcoming, public sneak preview of a major product launch] ...I realize the full platform won't be ready until January, but our Nucleus division assures me they are ready for this challenge.

[Engineering teams following the meeting:]

[Speaker 1] He does know that converting the whole platform to middle out has put us six weeks behind schedule, right?

[Speaker 2] Well I'm not gonna be the one who tells him we're that far behind.

—Scene from *Silicon Valley* 2015, Season 2, Episode 5

In extreme cases, nobody believes in the truth of a certain proposition but everybody believes that everybody else believes it. In more realistic cases, most people do not believe it but believe that most people do

—Elster, 2007

In the space of a few weeks, two apparently unrelated events took place. A colleague working at a Fortune 500 company was stopped in the corporate cafeteria and asked, “Did you hear about [Product X]? You told us it would never succeed. It took four years before they finally took it off the market and there wasn't even an announcement.” This conversation took place shortly before a friend at another large company recounted to me how he had presented research indicating an unpromising outlook on a product that had recently been brought to market. He had been commissioned with assessing how to market this product more effectively but research revealed challenges that he felt would be unlikely to be resolved. Following the presentation, he was taken aside and heatedly told (referring to the senior stakeholder involved): “He knows he has a turd. You can't tell him he's holding a turd; you have to tell him what to do with it.”

If you're an anthropologist or ethnographer working in a large organization there's little doubt that you've experienced something along the lines of these two episodes.¹ Despite

¹ During the time of writing, when mentioning this phenomenon to other professionals working in large organizations, the response was almost invariably one of recognition: ‘Oh, yeah; this happens all the time where I work.’ Responses to Ladner's blog post in EPIC PEOPLE, (“Ethnographers, Bearers of Bad News”), run in a similar vein. Ladner writes, “Cursed with foresight, she is a modern-day Cassandra, warning her colleagues of

often occupying a role of ‘truth teller’ in their organizations, and with ample evidence at their disposal, anthropologists and ethnographers can sometimes do little to stop products and services at high risk of failure from being brought to market. The conditions that make this possible, even likely in some instances—is the subject of this paper. The specific reasons why a product might be at risk of failure are not at issue here, but rather the dynamics that can dispose actors in an organization to ignore, discount, or not consider the risks in the first place.

Few people in large business corporations tend to be given the explicit responsibility to “kill” products. Those few may be the ones who came up with the idea for a given product or have an attachment to it. Corporate practices of communication, including competition over, and monitoring of, who gets access to decision makers with the power to kill products, the optimistic tone often expected of communications up and down the chain of command, and the way research findings get abstracted and ‘rolled up’—combine to limit the probability that critical risk information is clearly conveyed to those with the power to kill (or delay a launch) and decrease the chances that they will recognize the degree of risk when presented.

Drawing on a series of formal and informal interviews with professionals in large business corporations and many years’ experience observing organizational dynamics as an insider anthropologist, this paper begins to examine not what gives ethnographic research its authority but what is at stake for many of its corporate audiences; what is implicitly acceptable to say and not say in different corporate contexts; the performance of roles and rituals of social interaction and the symbols and practices by which an organization maintains its legitimacy—not to mention the hierarchies, positions, and ways of thinking that come to be seen as their natural accompaniments. Each of these elements, always at threat of exposure as artifice—combine to create a climate of complicity, in which ‘everyone knows’ but does not explicitly acknowledge (e.g., the product is a dud; the launch will fail). In what follows, we take up each of these dynamics in turn.

COMPLICITY, SAVING FACE, AND GAMES PROFESSIONALS PLAY

In Goffman’s classic work on social interaction, certain ways of speaking, dressing, and interacting are expected of people in any given situation; audiences support the roles enacted by ‘playing along’ and ‘saving face’; what is not acceptable to explicitly acknowledge is that these roles are performed in the first place (Goffman 1959). Much like a play, exposing the artifice during the play, *the acting*, undermines the belief in the realness of the play and its characters.

Seen from the vantage point of the organization, at stake in the exposure of the performance of the role is the legitimacy of the person occupying that role, the legitimacy of the role in general, and the ‘game’ in which it plays a part (Bourdieu 1994). Everyone who occupies what Bourdieu calls a ‘field’ has a stake in its perpetuation; so lawyers have a stake in the legitimacy of the law, legal institutions, and the legal professions, as well as their authority to make pronouncements on the subjects thought to be in their domain. At stake

impending doom that only she can see. Written comments signal the sort of reception such “bad news” often meets in corporate contexts: “I’ve noticed a tendency for managers to explain away inconvenient findings”; or, more telling: “After many years of listening to myself say, ‘I told you so,’ on failed projects, I’d given up on any expectation of having an impact on design processes” (Ladner 2015).

in lawyers performing their role in a manner that meets expectations is the legitimacy and authority of the entire field of law.

Seen from a different angle, the various actors in a given field need to be complicit in the basic fictions that make up the founding myths, the authority, and claims that field makes. This angle implies more conscious awareness of the various compromises involved: they ‘know’ the product is a dud; the game is rigged, the rich get rich.

...[E]veryone knows the system is compromised in a thousand different ways...The first criterion of loyalty to the organization becomes complicity. Career advancement is not based on merit...above all, it's based on a willingness to play along with the fiction that career advancement is *based* on merit, even though everyone knows this not to be true. (Graeber 2015, 27)

The notion of complicity explains – at least partly – how teams and stakeholders might act as if a failure isn't looming.² It is not necessarily that these people do not believe the researcher/truth teller or the real risk of failure the evidence implies. With the notion of complicity, people may conform outwardly but not inwardly (Elster 2007).³ They may not believe but they don't say so for fear of being seen as not adequately performing their station, or losing their station. As Tocqueville put it when describing why people with minority opinions often do not speak up once the majority appears already to have decided (for example to launch a product rather than investigate whether a launch is advisable): “When you approach your fellows, they will shun you as an impure being, and even those who believe in your innocence will abandon you, lest they in turn be shunned” (1988, 256). In such a context, a stated belief—the product is worth moving forward—might take years to unravel, when it is finally, quietly taken off the market.

THE CORPORATION IN RECENT (ANTHROPOLOGICAL) RESEARCH

Most work on corporations in academic anthropology has documented and critiqued the environmental, social, and political *effects* of corporate actors rather than attempting to understand how these entities actually work from the inside (Urban and Koh 2013, Welker *et*

² The formal meaning of the term complicity is revealing of the dynamics at play that we mean to describe. Thesaurus.com proposes three main groups of “words related to” complicity: *collusion* (secret understanding); *cover-up* (camouflage, concealment, dissimulation, masking, hush-up, seal or veil of secrecy, whitewash); and *plot* (conspiracy, frame, frameup, setup, game). Note the consistent theme of secrecy or hiding, the flipside of which is *exposure*, or revealing, unmasking. The antonym to complicity is *ignorance*, so a climate of complicity is literally one lacking in ignorance – in which everybody knows, but *acts as if* they don't know. This ‘acting as if’ or covering up could be part of the explanation to why doomed products move forward anyway.

³ In a chapter on collective belief formation and conformity, besides noting Tocqueville's astute observations on the subject, Elster reports on a series of experiments on group behavior (2007, 372-387). Subjects were asked to express their view on objectively determinable things, such as the proximity of one line to another on a page. In one experiment, when asked privately, participants were able to discern the correct answer 99% of the time. However, when others (strangers) were present and stated an incorrect answer, about 1/3 of participants indicated that same, incorrect answer. Elster suggests that the explanation for this outcome is most likely fear of disapproval. One can imagine that this phenomenon might be even more common in an environment in which fear of disapproval is heightened, such as in the context of job insecurity and internal competition for resources characteristic of many large, hierarchical business corporations in the United States.

al 2011). Popular depictions, American corporate law (Gordon and Orts 2014), and academic anthropologists alike have tended to speak of corporations as unified, rational actors. They might ask questions like: ‘how could they have fired that guy, let that happen, or launched that crappy commercial or product?’ Despite their internal complexity, Welker *et al* write, “these composite institutions give off the impression of unified thinking, talking, acting subjects” (2011, 54; Welker 2016). For the most part, Welker *et al* suggest, not only have academic anthropologists not brought to light such myths and misconceptions about corporations, by focusing on the harm such entities create or enable as apparently unified actors, they have tended to perpetuate and add color to them (*ibid*; Welker 2016).⁴

Meanwhile, business anthropologists and ethnographers, seemingly well-positioned to break up homogenous views of corporations, are more often paid to contribute to corporations’ ongoing operations than comment on them from an ethnographic standpoint. When anthropologists do engage in internal ethnographic work—workplace studies—the results are often written up for internal use and thus do little to contribute to a literature or research agenda on corporations themselves.⁵ Moreover, business anthropologists or ethnographers working *for* corporations are typically under non-disclosure agreements, limiting their ability to publish on the entities that have employed them. They may worry that publishing critical commentary on their employers or consulting clients—or commentary that might be construed as critical—could undermine their chances for future work as practicing business anthropologists.

When ethnographic research is employed to help de-risk potential products and services, the focus is typically on understanding markets, cultures and contexts external to the organization that would launch them. While this work can uncover important risks or obstacles a company might face in bringing a new offering to market, it does not attend to the constraints that organizational practices, beliefs, and dynamics can present to communicating and appreciating these obstacles once uncovered.⁶

FEAR, INSULARITY, INTERNAL COMPETITION OVER RESOURCES, AND THEIR EFFECT ON CONSTRAINING SPEECH

Pluralistic ignorance and cultures of hypocrisy can be sustained by the same mechanism, namely, fear of disapproval or punishment for stating deviant views. – Elster, 2007

⁴ And thus, Welker *et al* argue, despite the rise of anthropologists working for business and business corporations, the study of ‘corporations’ as such lacks sophistication – conceptual, topical and methodological. (2011) As an antidote, they suggest framing the object of study as ‘corporate forms’ as opposed to ‘the corporation.’ This framing emphasizes the diversity of instantiations corporations can take (public, private, large, small, religious, family-owned, and so on); as such, it might help shift assumptions away from “default conceptualizations of corporations as solid, unified, self-knowing, and self-present actors that relentlessly maximize profits and externalize harm” (*ibid*: S5).

⁵ There are exceptions, some of which are outlined in review articles like Cefkin (2009) and Urban and Koh (2013); such works include: Hespo (2013), Hoh (2009), Jiminez (2007), Krause-Jensen (2010), and Mack and Kaplan (2009), among others.

⁶ While there is an abundant business literature on innovation, this work does not tend to focus on organizational practices, beliefs, and dynamics in anthropological fashion; it often takes the form of a ‘how-to’ as opposed to organizational diagnosis.

The particular sort of corporation referenced in this essay is assumed to be large, publicly-traded, multinational, hierarchical in structure, and headquartered in the United States. Common organizational characteristics relevant to our discussion include the following: insularity (an organization's tendency to look 'inward'; a small number of day-to-day working relationships for most staff); job insecurity and internal competition over resources and capital (including symbolic capital like access to senior executives); a related climate of distrust; organizational hierarchies; and how corporate professionals are expected to communicate information up (and down) the chain of command. As we describe in the pages that follow, this mix of characteristics combine to make complicity with initiatives one believes might fail more likely; it also limits the probability that critical risk information is circulated with sufficient authority to kill an initiative. Norms about how information is communicated upwards to senior management can make it more difficult for these audiences to discern critical risks when they are, in fact, presented.

Insularity

The cast of characters in even the largest business corporations often feels to its participants like a small community:

The main points of reference, for most employees...are their supervisors and fellow workers, the main concerns on a day-to-day basis the mundane tasks of meetings, presentations, memos and 'deliverables.' (Galambos and Sturchio 2014, 24)

Despite their often global reach, modern business corporations tend to be quite insular in focus:

Few who have not worked in or studied modern multinational corporations up close realize how insular they can be. Despite being global corporations that may operate in more than 100 countries with tens of thousands of employees who interact daily with millions of customers and countless politicians, regulators, policy influencers...*there is a strong cultural bias to look inward rather than outward* (ibid, 24, emphasis added).

In such a context, to challenge decisions made by senior executives, at least publicly, can risk disapproval from the small group of coworkers and connections with whom a corporate staff person regularly works, potentially torpedoing the evaluation of their performance and undermining their everyday relationships – key currencies at play in such environments.

Job Insecurity and Internal Competition over Resources

In many corporations, much formal discourse is circulated about cooperation and collaboration – announcements 'cascaded' throughout the organization, CEO town halls, and policy memorandums. Internal collaboration is not infrequently an explicit corporate objective against which both teams and individuals are ostensibly measured. At the same time, both individual professionals and corporate functions are routinely in competition for 'resources' (staff, budget). Being granted more resources is a clear sign of success in corporate contexts—and typically seen as a bulwark against potential future staffing cuts.

Often the implication of a function or team being awarded resources is that it is recognized as strategically important to the business; those areas which have not been recently awarded resources could be taken to be less strategically important, and thus less needed for the corporation's future growth—opening up the possibility for elimination in a future reorganization. At bottom, fear of losing resources (or attempts to gain more) – one's staff, one's budget, or one's own job, motivates much behavior in corporate contexts.⁷ Indeed, corporate staff are regularly reminded of the fragility of their positions. This is true even for those specifically tasked with 'truth telling', such as market and design researchers or anthropologists; in one instance recounted to me, the results of a research project were delivered to a senior executive whose image had been on a loop in flat-screen monitors throughout corporate headquarters; days later, the executive and their team were quietly removed from their positions with no formal announcement, the image taken off the loop.

Access to senior executives is often jealously guarded and itself a 'resource' over which corporate staff and departments compete. Depending on one's station in the corporate hierarchy – for example, an analyst or mid-level research manager who uncovers important risks to a product initiative – a meeting with the CEO would not uncommonly include one's boss, their boss, their boss, and *their* boss as well. Any message in a research report shared in such a meeting is vetted at every level in that hierarchy. (In one instance of such vetting, the author was told by a senior executive referencing a draft report to be shared with other senior executives to replace any mention of the word "obstacle" with "opportunity"). The other effect of the close guarding of access to senior executives is the implicit feeling of a chain of command: a chain of bosses must be present to share reports with the CEO; communications to high-ranking executives are to be filtered through the heads of various corporate functions. The resulting output is more likely to be sanitized and abstracted. And because communications from middle management to senior executives are often 'rolled up' into highly abbreviated, abstracted, documents – sometimes a bullet point or two in someone else's document, information about critical risks associated with a product initiative might be overlooked.⁸

⁷ As Jordan observes, "A system of individualized accountability [reflected in, for example, a typical corporate performance evaluation] is virtually guaranteed to produce low trust by setting up conflict over who is responsible for problems and deficiencies" (2002). It equally engenders an environment in which competition and conflict over resources (staff, budget) and symbolic capital like access to senior executives and performance appraisals is likewise, "virtually guaranteed." The ever-present threat of job eliminations characteristic of publicly traded firms further heightens competition and lowers trust. If one is already reluctant to express a dissenting opinion because one believes that everyone (or most everyone) else agrees, one will be even less likely to do so in a context of pervasive distrust. Add to this the situation in which a senior executive is believed to have a special interest in a particular initiative (a product launch, say) and reluctance to express a critical view, seen to expose the apparent error of someone 'high-up', is even more likely.

⁸ The case of the NASA *Columbia* space shuttle crash represents a similar instance of significant risks to product failure inadequately communicated—in this case with human lives at stake. A NASA review board investigating the crash found "organizational barriers to effective communication" to be as important a factor as the physical causes of the crash: "We are convinced that the management practices overseeing the Space Shuttle Program are as much a cause of the accident as the foam that struck the left wing" (Columbia Accident Review Board: 2003, 11). Even when concerned engineers attempted to convey critical safety information up the chain of command, the way that information was 'rolled up', abstracted, and condensed, made it difficult for decision makers to recognize the degree of risk ("sometimes information gets lost altogether"). The board tellingly writes:

In theory, a middle manager could walk down the hall to the CEO's office or send an email, but stories of such instances often involve the counter machinations of some competitor, guarding their senior relationships, or a manager taking a direct report to task. In one instance reported to me, a staff member proposed a new initiative—an innovation practice often done at other corporations—in an email sent directly to the CEO. News of this event traveled as the CEO soon asked for staff in other functional areas to support the new effort; meanwhile, internal competitors set in motion attempts to undermine the offending staff member, who left the company soon after.

Fear, distrust of others, and caution often pervade such an environment. Before making critical comments, staff keep their voices hushed and check the sound isolation of meeting rooms to ensure no one overhears. Privately, they may complain about their job or question the wisdom of a senior-level decision. Staff do not need to be told what not to say in front of others; just like *doxa*, or common sense, it “*goes without saying because it comes without saying*” (Bourdieu 1977, 167).⁹ In this, the feeling of powerlessness is widespread:

What impressed me about the few middle managers I interviewed at length was the high degree of alienation they expressed in terms of the common indices of that condition: social isolation, *powerlessness*, meaninglessness, self-estrangement, and normlessness (Nash 1979, 424-425, emphasis added).

This context of fear, distrust, competition, and pressure to put a positive spin sends a message to corporate staff that whatever one says to senior executives, much less about them, will be closely monitored, so, at a minimum should be carefully considered (or not said at all).

Communication, then, is often constrained when moving either ‘up’ or ‘down’ the corporate hierarchy; in both directions, the tone is generally expected to emphasize the positive. We have already discussed how this happens when communicating ‘upwards.’ Memos circulated from senior leadership to professional staff tend to focus on recent ‘wins’; context is typically abbreviated or eliminated. That important pieces of strategic context are often not shared down the chain – whether due to competitive considerations, exposure to risk of insider trading, or the assumption that such context is not needed for more junior ranks—creates an implicit understanding that staff are meant to provide ‘inputs’ or ‘execute’ on strategy espoused by senior leadership, while important decisions are to be made at the top. Such a context creates the impression that research recommendations are not meant to be directive—‘kill this product’—so much as informative.

To summarize, a number of characteristics typical of large, publicly traded, corporate workplaces, taken together, lend themselves to a climate of silence or complicity with respect to potentially at-risk initiatives:

The initial damage assessment briefing prepared for the Mission Evaluation Room was cut down considerably in order to make it “fit” the schedule. Even so, it took 40 minutes. It was cut down further to a three-minute discussion topic at the Mission Management Team. Tapes of...[the] sessions reveal a noticeable ‘rush’ by the meeting’s leader.... (ibid, 192)

⁹ Distinct from *doxa*—“that which is beyond question and which each agent tacitly accords by the mere fact of acting in accord with social convention”—is the *official* norm, what actually *is* said. (Bourdieu 1977, 169).

- Insularity—the “strong cultural bias to look inward” rather than outward; the small number of other staff most employees typically interact with—can magnify the perceived stakes of going against what might appear to be consensus.
- Endemic competition over resources (staff, budget, access to senior executives), combined with job insecurity, can give rise to an environment of distrust in which actors are cautious about what they say and to whom, particularly with respect to comments that might be construed as critical of senior executives with the power to eliminate staff or entire teams.
- Expectations to abbreviate documents and pressure to put a positive spin—“opportunities not obstacles”—can disguise critical risks in abstract formulations or softened language.
- Differences in power and authority related to the speakers’ position in the organizational hierarchy can lead those who believe an initiative is substantially at risk to be reluctant to speak out and audiences less likely to take their claims seriously if they do.

Institutional Metaphor, Myth, and Reproduction

Patterns of authority or precedence enjoy a privileged status, because as Thomas Schelling has well said, their smallest indivisible parts are persons (Schelling 1978). A person cannot be divided, cannot be in two places at once, cannot be both superior and inferior within the same context, cannot have cake and eat it. —Mary Douglas (1986, 65)

In a now largely neglected school of anthropology, structural functionalism, a heavy focus was placed on how cultures, societies, and institutions are reproduced or perpetuated. Structural functionalist anthropologists like Radcliffe-Brown and Gluckman attended to patterns in culture that came to appear as natural, and therefore inevitable: male is to female as left is to right, as the people to the sovereign (Douglas 1986). As Mary Douglas has observed, the more it is assumed that right is superior to left, North to South, male to female, the sovereign over the people, the more such hierarchies are perceived to be not only justified but ‘natural’ (Douglas 1986). Here what has become natural is assumed to the point of ‘it goes without saying.’

The stabilizing principle [of an institution] is the naturalization of social classifications. There needs to be an analogy by which the formal structure of a crucial set of social relations is found in the physical world, or in the supernatural world, or in eternity, *anywhere, so long as it is not seen as a socially contrived arrangement.* (1986, 48, emphasis added)

This last point, a condition really—that classifications not be seen as “socially contrived”—is important because without it, the institution’s equilibrium, the assumption that it will continue existing largely as it is, will not be taken for granted. This is because anything clearly socially contrived is immediately exposed as arbitrary, changeable—not given.

Thus in corporate contexts, it is no doubt no accident that division presidents and functional leaders are often referred to as “heads” (division head, Head of Marketing). This naming convention lends itself to the notion that if a head were removed, the (corporate) organism would be functioning headless. Professional workers, whose jobs may exist thanks

to the head, whose jobs could be removed at any moment at the displeasure of the head – might be reluctant to speak up and risk making the head appear less head-like. As Douglas puts it, “By casting decisions in the language of the body, they are given their legitimacy by being naturalized” (1986).

Institutions...fix processes that are essentially dynamic, they hide their influence...Add to this that they endow themselves with rightness and send their mutual corroboration cascading through all levels of our information system. (ibid, 92)

Add to this the pervasive difference in power between the head and the professional staff that make up the corporate body and we have yet another reason staff might refrain from what might be taken as criticism: “In situations where there is a power differential, that is, when one party is vulnerable to the actions of the other, there is a risk of harm: (Jordan 2002, 1).¹⁰

The naturalized metaphor of head and body further implies that important decisions, like whether to kill a product, are to be made in the head and not the body.¹¹ This is another means by which those more likely to uncover key risks to the success of a product, such as researchers, are made to understand that their role is to provide input, not make decisions.

Obedience in Action and Discourse, if not in Thought

One might reasonably assume that some aspects of prevailing norms in the country or city in which a corporate headquarters is located might find their way inside that corporation—all the more likely in the case of fundamental norms at the center of the justification for the given society’s existence and the particular form given to its political system. Since our discussion is focused on corporations headquartered in the United States, at issue are prevailing norms and values in that country. And few observers have better described the crux of American values than Alexis de Tocqueville.

Laying out the risks of the tyranny of the majority in American democracy, Tocqueville describes how obedience and conformity work—not just in political institutions but on what gets thought, or more precisely, expressed by most citizens in the US. The most telling section of his *Democracy in America*, and certainly the most apt for our purposes here—

¹⁰ Most large corporations today routinely undergo a variety of ‘change initiatives’ (Krause-Jensen 2011). One regularly reads about such efforts in business publications like the *Wall Street Journal*, *Forbes*, *Harvard Business Review* or the *MIT Sloan Management Review*. A corporation seen as needed to make a particularly sharp transition in how it does business or what business it’s in, engages in a ‘transformation,’ which could be positioned to Wall Street and investors as planned over a period of, say, 3 to 5 years. In these contexts, ‘change agents,’ those seen to spark or lead formally announced efforts at change, are valorized. So it is not the case that corporations and their employees resist change of all types; corporate transformations and the change agents seen as enabling them are often *officially announced*, some to the point of being externally positioned to the market, shareholders, and staff alike—thereby sanctioning change explicitly attached to the announced transformation, and potentially delegitimizing what might be seen to get in its way (Krause-Jensen 2011).

¹¹ “In modern industrial society the analogical relation of head to hand was frequently used to justify the class structure, the inequalities of the educational system, and the division of labor between manual and intellectual worker” (Douglas 1986, 49)

understanding why someone might not speak out against something with which they disagree—is fittingly entitled, “The Power Exercised by the Majority Over Thought”:

...[W]hile the majority is in doubt, one talks; but once it has irrevocably pronounced, everyone is silent, and friends and enemies alike seem to make for its bandwagon....I know of no country in which, speaking generally, there is less independence of mind and true freedom of discussion than in America.... (1988, 254-255)¹²

To translate the above comment to a business corporate context, consider the episode of HBO’s *Silicon Valley* referenced at the opening of this article. The CEO of a large tech corporation announces in a town hall meeting that the company will preview a product currently in development during a live sporting event. Immediately following this announcement, viewers witness conversations among different ranks of the engineering teams responsible for the launch; for example:

[Speaker 1] ...He does know that converting the whole platform to middle out has put us six weeks behind schedule, right?
[Speaker 2] Well I’m not gonna be the one who tells him we’re that far behind. If you want to, feel free.
[Speaker 3] I just heard you tell Heidi we’re six weeks behind. But remember that drop-frame issue I showed you? We’re easily 15 weeks behind.
[Speaker 4] Well, I’m not gonna be the one to tell Heidi about that. [Speaker 1] Feel free to tell her yourself.
(*Silicon Valley* 2015, Season 2, Episode 5)

Unsurprisingly, no one conveys the risk of failure up the chain of command (even though ‘everybody knows’ except the CEO), and in a subsequent episode, the technology crashes during the televised launch, publicly embarrassing the company and the CEO.

Tocqueville goes on to contrast this condition of “Power Exercised by the Majority over Thought” in democracy with the reign of princes and monarchs, who threaten violence on the body for non-conformity, whereas “in democratic republics that is not at all how tyranny behaves, it leaves the body alone and goes straight for the soul.”

The master no longer says: “Think like me or you die.” He does say: “You are free not to think as I do...but from this day you are a stranger among us. You can keep your privileges in the township, but they will be useless to you, for if you solicit your fellow citizens’ votes, they will not give them to you...When you approach your fellows, they will shun you as an impure being, and even those who believe in your innocence will abandon you too, lest they in turn be shunned. (1988, 255-256)

If this is at all descriptive of the cultural climate in the US, generally speaking – granting that Tocqueville may be exaggerating for effect – one can imagine how the insularity common among many large corporations, in which one regularly interacts with a small group of peers, supervisors, internal clients, and direct reports, and in which one’s financial security is

¹² Tocqueville continues, “In America, the majority has enclosed thought within a formidable fence. A writer is free inside that area but woe to the man who goes beyond it. [H]e must face all kinds of unpleasantness and everyday persecution... Those who condemn him express their views loudly, while those who think as he does, but without his courage, retreat into silence, as if ashamed of having told the truth” (ibid, 255)

perpetually at risk of ‘reorganization’—that fear of being shunned by going against majority (or sovereign, senior executive) thinking might be pervasive. Moreover, one might be predisposed to assume the majority is decided on a particular topic even where it is not.

CONCLUSION

While most corporations have sanctioned ‘truth-telling’ functions, such as market, design, or user research, which are given a sort of license to speak out critically about product development initiatives, the warnings such teams sometimes put forward are subject to a wide range of constraints on their interpretation and dissemination that can make formal recognition of risks less likely.

A host of institutional contextual factors can contribute to a felt need for corporate professionals to be guarded in their communication with coworkers, among them: the often regular sense of job and financial insecurity for professionals working at publicly traded companies, particularly those experiencing revenue contraction or organizational ‘transformation’ or restructuring.¹³ Moreover, institutional practices of communication can constrain the circulation of risk information and serve to disguise its import when circulated; such practices include: highly guarded communication up and down the organizational hierarchy; ‘rolling up’ research findings in abbreviated and, often, sanitized forms for senior executive consumption, such that risks may be difficult to discern or appreciate; and competition over, and restricted access to, direct communication with managers senior enough to wield the power to kill initiatives.

Organizational hierarchy, status, and the relative power of different corporate staff positions and ranks give rise to a sense of one’s ‘place’ in the chain of command. And along with implicit metaphors such as organizational ‘heads’ and ‘bodies’ which can serve to naturalize such organizational hierarchies, can give rise to felt constraints on speech and the notion that significant decisions—such as whether to kill a product—are to be made by the ‘head.’ We have seen how research inputs into such decisions are often highly monitored, abstracted, and seen to need a positive spin (demonstrating a ‘can do’ attitude, highlighting ‘opportunities not obstacles’). All this can contribute to creating a climate of complicity.

At the same time, none of the foregoing should be taken to mean that the circulation of risk information will *necessarily* be constrained, that products will not be killed, nor criticism silenced. Staff in business corporations routinely speak up about things with which they disagree or are concerned. Moreover, companies can make adjustments to mitigate the conditions that can give rise to constraints on the communication of risk information. Such adjustments might include: formally elevating the status of research teams, perhaps giving them a form of veto power on product initiatives; assuring job security for those speaking up about risks; or designing product development teams to focus on identifying potential Achilles heels rather than using research to ‘validate’ their direction.

¹³ It is worth stressing, as Karen Ho informs describes, that job insecurity—through the pervasiveness of restructurings and large-scale layoffs—is common among many Fortune 500 companies, regardless of their profitability (Ho 2009, 133, 135, 137). In Ho’s account, “the restructuring movement gained so much momentum that it left virtually no company untouched...” (2009, 133). In the United States, she reports, employment by F500 companies dropped substantially in the 1980s and 1990s—from 1/5 to 1/10 of the non-agricultural workforce (ibid).

X, formerly Google [X], is an example of a company that appears to have made these sorts of adjustments. Judging by public accounts, X may be at the opposite extreme of the sort of constrained environment for communicating risk information described thus far; there, failure in the form of killing projects or products is said to be explicitly encouraged from the top. The head of X, Astro Teller (whose official title is “Captain of Moonshots”), has spoken publicly about how this is done; he describes the organizational climate like this:

The Moonshot Factory is a *messy* place. But rather than avoid the mess—pretend it’s not there—we’ve tried to make that our strength. We spend most of our time *breaking* things. And trying to prove that we’re *wrong*. . . Run at all the hardest parts of the problem *first*. Get excited and cheer: hey, how are we going to kill our project today?! (Teller 2016, 1:54, emphasis in the original)

Teller describes a place where staff are supposed to routinely ask, “How can we kill this as fast as possible so we get on to something that is worth doing?”; where members of failed project teams are commended in full view of their colleagues—and given bonuses.

In this way, companies can play with organizational conditions to make ignoring or not speaking up about risk less likely. But while X may sound like the idyllic opposite of how many big corporations inadequately communicate risk information and move forward with projects that probably should be killed, there is at least one indication that even in an environment like X’s, staff may be reluctant to speak up. Imagine a case in which Teller, a charismatic speaker, and no doubt a charismatic leader, has expressed enthusiasm about a certain project. How much less likely would the team be to express their concerns? Perhaps not coincidentally, X has been regularly lampooned in HBO’s *Silicon Valley*—rather transparently represented as “Hooli XYZ”—and this Emperor-Has-No-Clothes type phenomenon was referenced earlier, including in the opening quote in which engineering teams refuse to speak up about their concerns about likely delays to a product launch. Such tendencies may be difficult to reverse, and even at a place like X, may need to be monitored—perhaps through unbiased observation or ethnography performed by a protected research function.

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Papers 3 – Vantage Points

The View From The Studio: Design Ethnography and Organizational Cultures.

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This ethnographic study of designing explores the relationship between the organizational surroundings of the design studio and the way in which design ethnography activities are accomplished, with a focus on the ways in which design practitioners are actively negotiating and redefining the perspectives they use to conduct research work. It proposes the twined cultures of reflexivity and conjecture as frameworks for understanding what it is that makes design ethnography so different, and for reconciling the integration of the ethnographic toolkit within the limitations of daily design practice. Based on findings from a para-ethnographic study of designers at work on an augmented reality project in a large studio, this paper explores the effects of framing design ethnography as research that looks both inward, and at the future – perspectives which serve to contradict traditional expectations of the vantage points offered by this methodological toolkit.

INTRODUCTION

When I ask designers at Studio X what they “do” in a day, I’m unlikely to receive a straight answer. “We make experiences” comes up, accompanied almost always with an eye roll. “I move pixels” or “I draw pictures” is another common answer, offered as an antidote to grandiosity of the field’s claim to save the world. The design practitioners that I collaborate with are tasked with creating the future—with anticipating and shaping the conditions in which we will engage with a future digital and material world. The way that they (and others in their field) have adapted the ethnographic toolkit as an inventive and engaging approach to solving problems in the studio is well documented—and much celebrated—as unique and innovative. But how are design practitioners learning to do this type of research, and how do they fit it within the boundaries of *designing* as a practice? Is the implementation of ethnographic methods within design practice tied to either the abilities of the design team (their visual aptitudes, their training and background) or to their attitudes (their willingness to engage with the sticky, the wicked and the complex in an iterative and ‘designerly’ fashion)? Or could the way they do ethnography instead be a function of an organizational culture that in itself is radically different than that which shaped ‘traditional’ ethnographic methods?

In this paper, I am using findings from an organizational ethnography of a design studio to explore the relationship between an organizational culture and the way in which design ethnography activities are accomplished by its members. Using perspectives generated through collaborative and para-ethnographic work in a large scale digital design studio, I will tell the story of how a specific team of design practitioners learn to interweave design practice and ethnographic methods to generate a new and unique way of researching. This paper will ask: what effect does the organizational culture of the studio have on the research practices of designers? What happens when we map the prevailing narratives about designer-led research against the lived social structures and social practices of the organizational

culture of a studio space? What frameworks can be seen through the lens of an organizational culture; what practices are rendered more visible or valuable when a designer's methodological depth of field, focus, and viewpoint are shaped by the socio-material arrangements of the studio space?

What emerges from the data is a clear picture of how design practitioners are actively mobilizing two facets of their organizational culture to shape their use of the classic ethnographer's toolkit. Design practitioners engaged with adapting the traditional ethnographic toolkit to their needs and uses tell the story of how the organizational culture of the studio shapes not only their everyday, mundane 'research focused' activity tasks, but also their social practice: including the way that they understand the role, function and practice of their ethnographic research work. In doing so, they offer two key insights. First, they share how a culture of conjecture can reward a design practitioner's bias towards forecasting rather than looking at the present during both data collection and analysis phases of ethnographic research work. Second, they share how their particular studio's culture of reflection embeds a bias towards self-examination rather than engagement with participants outside the design practitioner's community of practice.

The following sections describe the theoretical perspectives used to analyze and contextualize emergent findings from the ethnographic study, the study's use of para-ethnographic methodology, and two initial theoretical frameworks developed in partnership with study participants offered as a way to understand how the organizational culture of the design studio acts to shape the way designers learn and practice ethnographic methods.

THEORETICAL CONTEXT

Organizational Culture

Through an examination of the way in which the socio-material arrangements of the studio shape the form of designer-led research practice, this paper attempts to contribute to the ongoing discussion about how designers work to solve wicked, multifaceted and ambiguous problems (Buchanan 1992). Despite the growing attention paid to the importance of designer-led research today, the inside of the studio remains a relatively unexamined vantage point from which to view how design practice actually happens (Murphy 2015). This study aims to address that gap by providing a detailed picture of how design practice, including the use of ethnographic methods in the design studio, is changing. The narrative frames applied to design practice in the organizational setting are deeply informed by the socio-material arrangements of the studio space (Brown & Duguid 2001); Thornton, Ocasio & Lounsbury 2012), the institutional logics of the studio organizational culture (Oswick & Richards, 2004), and the interactional resources and social practices (Chaiklin & Lave 1993) that come to stand for creative practices in the work of designers (Gunn, Otto, & Charlotte Smith, 2013; Wilner 2008).

As with any organization, "the way we do things around here" at Studio X is simultaneously inferred and invisible *and* materially embodied (Parmelli, Flodgren & Beyer et al. 2011). It is constructed from "knowing how" – from the behaviours, conversations, artefacts and patterns common to the defined group of people that form the living organization or the curriculum and customs of the people who make up the studio itself. Knowing "how" to practice design in the culture of Studio X is not easy - the boundaries for

acceptable behaviours are unmarked on the ‘creative’ side of the studio, and the consequence for transgressions can range from the social (not being included in the ever present group chat happening on every monitor but yours) to being ostracized from team briefings and brainstorm sessions.

Knowing how to be a designer—how to practice design—within the specific culture of Studio X means more than just a knowledge of docket numbers and client briefs. It means sharing ‘how we do things here’: sharing the beliefs, values, norms of behaviour, routines, traditions, sense making and perspectives of the organizational culture itself. By applying these values and norms to their daily practice, designers on the creative teams at Studio X operate within what Schein refers to as a “pattern of shared basic assumptions” (1995), each of which are shaped by and act to shape the mindset that dominates the culture of the studio organization.

Design Ethnography

One example of ‘how we do things here’ at Studio X is the way in which practitioners *practice* design ethnography: the well-established, unique and valuable methodology developed at the intersection of ethnographic research methods and “designerly” ways of doing (Crouch & Pearce, 2012; Gunn et al. 2013) (Charlotte Smith et al. 2016; Anderson 2009). With ethnographic methods becoming ever more integrated into the larger practice of design (Crabtree, Rouncefield & Tolmie 2012; Banks, Gill & Taylor 2014) and with an increased interest in the role of design as a research tool (Charlotte Smith et al. 2016; van Vaggel 2005), it is not surprising to see this term come up as a descriptor for the designer-led research conducted as part of client work at Studio X. For design practitioners in this studio, and in many others, design ethnography has moved beyond the realm of ‘activity’ - or “more mundane behaviours...everyday work” (Thornton, Ocasio & Lounsbury 2012, p. 148) - and into that of ‘practice’ - or “forms or constellations of socially meaningful activity that are relatively coherent and established” (p. 148). This evolution of design ethnography from activity to practice serves to validate and value the research form as an essential element of design practice at Studio X and across the industry (Halse & Clark 2008; Tunstall 2008).

However, less attention has been paid to the ways that an organizational culture can support specific practices of design ethnography, or how it can impose boundaries and limitations within this form of research work (Julier 2017; Kimbell 2012). Current examinations of the practice of design ethnography in the studio setting focus primarily on three aspects of its social construction: the *attitudes* that design practitioners bring to their research work, the *abilities* that enable the practice of designer-led research, and the unique aspects of the *approach* that constitute the application of the practice of design ethnography.

First, important contributions focused on the research and problem-solving methodologies of designers shed light on the role of *attitude* in the practice of design ethnography: an attitude which has come to be defined as a designerly way of knowing, or a sensibility—the tacit or embodied ‘feel’ for the game possessed by the designers themselves (Cross 2011; Dorst 2011) . The second area of scholarly interest focuses on the *abilities* required for the practice of design ethnography. Contributions from this perspective illustrate the ways in which design practitioners are trained in the unique professional and personal skill that marks their community of practice (Duguid 2007) and developed through their enculturation in their community of cultural production (Scott, Bakker, & Quist 2012;

Simonsen et al. 2014) . A final area of focus for those interested in the social construction of design ethnography as a practice form is the unique nature of the *approach* which constitutes the method: the tactics and processes that designers undertake in their work as they solve wicked and complex problems. This point of focus is of particular interest to those invested in mobilizing the popular conceptions of ‘design thinking’ practices outside of the socio-cultural matrix of studio culture (IDEO 2014; Martin 2009). In this particular study, the key point of focus is the organizational culture which informs and shapes the attitudes, the abilities *and* the approach: the way in which the socio-material intersections at play in Studio X tint the lens through which design practitioners on the creative team see the boundaries and possibilities of design ethnography as a problem-solving method in their daily work.

Using Para-Ethnographic Methods in Creative and Knowledge Intensive Organizations

Since the design teams that participated in this case study are themselves producers of interpretation and analysis through ethnographic methods, this study presents a unique and exciting opportunity for the use of para-ethnographic methods (Holmes & Marcus 2005). In practice, this means implementing two guiding principles for the study methodology. First, it means prioritizing the joint production of knowledge with organizational members who are actively interested in theorizing their own practice. In their role as knowledge producers, design practitioners at Studio X come to their practice every day with an understanding of the theoretical and methodological approaches which influence their own personal perspective, and which define a large portion of their organizational identity. As a community, designers are highly invested in the reflexive description of their own culture and have developed the ability to “play the role of culture analysts themselves” (Islam 2015; Mills and Ratcliffe 2012). This ability to conduct intra-community analysis allows for the inclusion of the ‘multiple knowledges’ of the research subject outlined by Burawoy, resulting in what he called a ‘craft production of knowledge’ (1998).

Secondly, the study methodology is guided by the ethnographic methods employed by the design practitioners themselves: through the use of a para-ethnographic approach, design teams guide the data gathering, interpretation and analysis processes and use their own ‘toolkit’ of practices and actives to structure the stages of field work and thematic analysis. The actor-produced perspectives marked, but not defined, by organizational structures and material assemblages, are treated as “partial visions” (Islam 2015, p. 239) and are analyzed collaboratively by both the researchers and the participants. Design practitioners participate in data sorting and coding exercises on site, and field-notes (including observations from pitch presentations, small team brainstorming, client meetings, hallway interviews and shadowing sessions) are generated in a collaborative online working space used often in client work to enable the design team to provide additional commentary and perspective. Design teams also participate in data analysis by ‘translating’ organizational documents and work flow structures into participant generated ‘process maps’ that more accurately represented how they understood their practice forms.

This para-ethnographic approach is made possible by the ways in which designers are already working with theoretical and methodological approaches informed by ethnographic practice – work which primes them to be highly reflexive about their own community of practice within the organization, and their practice as knowledge and creative workers within

a larger cultural segment. As Feyerabend (1975) notes, much of the ‘data’ generated through participant observation and semi-structured interviews conducted in collaboration with knowledge-workers (such as design practitioners) is by nature informed by theoretical perspectives generated through their participation in a community of practice. For this reason, a para-ethnographic approach is especially useful in allowing designers to participate in making visible the social structure, theoretical perspectives and cultural implications of their working world.

METHODOLOGICAL APPROACH

The studio workplace of Studio X presents an especially rich vantage point from which to examine the impact of the organizational culture of the studio on the research practices of designers. At first glance, Studio X¹ is a contemporary building in a gentrified area of a large Canadian city filled with the expected foosball tables, living tree walls, bar areas, video game centres and nap pods: the embodiment of what we have defined as a creative place to pursue a passion-directed practice (Viorel Pop 2014). But the view offered from behind the client-focused spaces filled with golden trophies and wall mounted portfolio displays reveals a different order at play. It quickly becomes apparent that the organizational culture which provides the parameters for the acceptable practice of design ethnography here is not defined by the recreational facilities and client-facing displays of awards and accolades, but by the white board-walled ‘war’ rooms filled with design prototypes, coffee cups, lap tops and sketch notes in which design teams spend the majority of their days. With more than 850 workers across 11 offices internationally, the organizational structure of Studio X is complex and multi-layered. What is immediately clear to visitors and organizational members alike is that the creative side is different than anywhere else in the studio. Not only are creative teams spatially divided from accounting, project management, UX and strategy teams (occupying an entirely separate wing of the studio’s downtown space), but their reporting and reward structure is different as well.

In total, fieldwork with design teams was conducted over the course of one year-long project,³ allowing for the exploration of “a particular set of social processes in a particular context” as suggested by Mason (2002, p. 91). All respondents self-identified as members of Studio X, working in the field of graphic, digital and experience design, and participating respondents were limited to those employed as part of the particular design team during the time of the study.⁴

The first stage of working with designers at Studio X to develop an understanding of the role of organizational culture in shaping both the practice of design ethnography, and the deep story of what it means to be a design researcher (Russell Hochschild 2016) included identifying the base activities that design practitioners identified as part of their own extended ethnographic toolkit. Through a sorting exercise, design practitioners documented the various activities that they billed as “research”, and worked collaboratively to sort them into alternative categories in order to explore potential themes. This stage of the study served to clarify what design practitioners understood as research, and to differentiate this from the auditing categories provided by the studio culture. ‘The way we do things here’ is different in each organization, but with this sorting activity design practitioners at Studio X were given a language which frames how *they* engage in ethnographically informed research work. By working together to analyse the individual activities or “more mundane

behaviours...everyday work” (Thornton, Ocasio & Lounsbury 2012, p. 148) listed in their billable time records as evidence of a larger practice form, design practitioners were able to make visible both the culture which shaped their design ethnography work and the biases that this culture naturalized, encouraged and rewarded.

In the second stage of the study, designers worked collaboratively to identify a new definition of what design ethnography meant in their studio space. Semi-structured interviews with individual team members were then conducted with a specific focus on the definitions generated by the team at large. Observational and interview data was coded and gathered into relevant themes using Quirkos and collaborative analysis of data and analytical findings was conducted with the participating members of the design team using Google Drive to encourage reflexivity and capitalize upon existing professional knowledge (Islam 2015).

DISCUSSION AND ANALYSIS

Stage 1: Defining Design Ethnography

In the organizational culture Studio X, designers are encouraged to use their allocated ‘research’ time in a variety of ways. The clearest way in which the research values of the organizational culture are shared and embedded within the design teams is through the accounting and auditing practices they face each day. By categorizing their research practice within the organizationally structured categories of the billable time sheet, designers quickly become adept at focusing on research activities that fall within the acceptable parameters established by the studio’s management and accounting divisions.⁵ At Studio X, these categories of ‘research’ included:

1. Concept generation
2. Concept testing
3. Ideation
4. Prototyping

As knowledge workers and researchers themselves, participant members of the design team were able to articulate their performance and practice of design ethnography in ways that were both “conventional and reflexive, reflecting both knowledge of the “common sense” of organizations and the limits of that common sense” (Islam 243). With this in mind as a starting point, design practitioners collected, compared and re-sorted their data as a team. After working extensively with their activity lists, the following two definitions of design ethnography were proposed:

1. Design ethnography is research that focuses on looking back from the future.
2. Design ethnography is research that focuses on looking inward.

Framing their design ethnography practice as *research that focuses on looking back from the future* shines a light on a studio culture of conjecture, and on the ways it rewards a design practitioner’s bias towards forecasting rather than looking at the present. Within this framework, design practitioners deny the traditional ethnographic focus on the present and

on current experience. And framing their ethnographic practice as *research that focuses on looking inward* reveals a studio culture of reflexivity - one which embeds and cultivates a design practitioner's bias towards examining their own lived experience rather than towards looking outwards. In this way, design practitioners frame ethnography as best done when taking the self as the primary subject – a perspective that directly challenges core tenets of ethnographic practice.

Stage 2: Analyzing the Organizational Cultures of Studio X

Both of these frameworks impact the perspective, practice and production of the design teams at Studio X, and these mindsets (Dweck 2006) represent a way of understanding the structuring force of the organizational culture within which designer-led research occurs. With each project they take on, the design team at Studio X is tasked with evolving a traditional practice model (notably, ethnography conducted to explore digital technological platforms) into a form of predictive production: creating a setting where new extensions and evolutions of the ethnographic toolkit can be observed and clarified as the design practitioners engaged with “creating the conditions of the future - shaping the requirements for the future” (Designer A 2017).

A Culture of Conjecture – Design ethnography is often presented to clients working with Studio X as a process with clear boundaries and stages: methods of concept generation, testing, ideation and prototyping were audited and accounted for at an hourly rate, and the analysis was complete when a final deck of findings was presented on a wall-sized flat screen at a client-approval milestone meeting held in the boardroom. These categories, and the clarity of this process are rendered irrelevant from the perspective of a designer billing their time. “You don’t want to know how the sausage gets made” explained one senior creative director. “We get there. It’s just not a straight line”. This process of practiced design ethnography at Studio X, messy as it is, would not be possible without the first of two frameworks embedded in the organization itself: to do “research that focuses on looking back from the future” requires an established *culture of conjecture*.

The organizational culture of conjecture at Studio X acts to encourage a bias towards forecasting rather than looking at the present within the data collection and analysis phases of the design practitioner's ethnographic work, and allows design practitioners to revise the boundaries of their practice to include acts of *remembering the future* as a form of research. By encouraging and rewarding the use of a forecasting bias as a way of “making do” (de Certeau 1984) in projects that hold high levels of ambiguity (and low levels of actual data for analysis) a culture of conjecture allows for a unique and different form of engagement with ethnographic methods. Design practitioners approach analysis by rejecting the need to uncover the existing requirements of today's world, and instead employing a bias towards forecasting as a collaborative prediction method to allow design practitioners to position themselves in a hypothetical future. This allows them to extend the boundaries of the ethnographic method, creating an affordance for generating ideas that can be tested and reported on from that 'future' vantage point. When doing “what I guess you can call research if you want” (Designer B 2017), members of the creative team actively operate in the space of the hypothetical and predictive future, working collaboratively to generate ideas for “when this comes out” (Designer A 2017) rather than actively constraining their ideas

within the parameters of the present day. This incorporation of ambiguity within the parameters of the research phase of the project is often presented as a positive feature of the process by the design team: “Who knows what this space is going to be by the time we are done. I guess, well we know. That’s our job right?” (Designer B 2017).

In this culture of conjecture, creative team members are expected to dedicate over half of their ‘billable’ research time to what studio on-boarding materials described as ‘moon shot’ thinking; forecasting scenarios, proposing imaginary contexts and predicting abstract outcomes for their undefined design solution.

“You never know how it is going to live out, so you have to work on the idea itself. I mean, we knew this was going to be an experience rather than just a site. We knew it had to live in public, not on a screen. But they don’t know what the form is going to be in 6 months. Will we still have any of the VR we’ve got now? No point designing to, you know within the specs we’ve got - this baby isn’t going to live there” (Designer C 2017).

The shaping function of the culture of conjecture at play at Studio X is supported by the embedded ethos of innovation, unpredictability and risk for which the Studio was renowned. Designers who are able to engage a bias towards forecasting during both data collection and analysis phases of their DE practice are rewarded with larger, more complex, and more high profile projects and are freed of the “wrist work” required of the “pixel pushers” in the lower ranks of the team. And by creating a social license for the allocation of billable hours to practices of forecasting, the designer’s ethnographic toolkit is extended to include the ‘generation’ of findings through acts of “remembering the future” rather than through the analysis of field notes or interview transcripts.

The organizational culture of conjecture also acts as a future-focused lens for designers within their ‘research’ phases by positioning design practice within an adjusted narrative around what constitutes the labour of design, requiring designers to orient toward design-as-idea-generation rather than design-as-product-generation.

“We come up with ideas without leaving our chairs - we’ve got to use our imaginations but you can call that research if you are billing it” (Designer A 2017).

A culture of conjecture (or of ‘remembering the future’) is also reflected in the way that designers describe their own individual practice:

“We just jump off what is today - but we aren’t designing for today, even if we do it today. So you can’t only research today. But how can you, you know, research tomorrow? That’s what we are good at” (Designer B 2017)

Finally, this culture of conjecture is also supported by the material space of the studio itself. By creating ‘research’ studios out of white boards upon which designers are asked to transport themselves “into the yonder...defining for ourselves what might be, then reporting back” (Designer A 2017), rather than spaces where data, transcripts, field notes or video documentation could be reviewed and analyzed, the material culture of Studio X rewards a bias for forecasting over data collection, and privileges the use of “remembering the future” over data analysis and interpretation.

A culture of forecasting—one which encourages looking back from, or remembering, the future—enables design practitioners to engage an important *ability* identified as a key trait of

this community of practice: the ability to conjure or forecast a future state, and to create the optimal conditions for that reality. By creating a culture of conjecture, the organization of Studio X enables designers to include their abductive thinking resources in their design ethnography toolkit, to engage shortcuts in the process of conjure up alternate realities without the expense of scenario builds or physical prototyping, to incorporate performance into their research practice, and to iteratively model-test multiple scenarios for multiple constructed future vantage points without exceeding the allocated billable resources of time and materials. This ability can also be understood as counterfactual foresight (Hines et al. 2017): a practice understood by neuroscientists as one that increases the brain's ability to construct and reconstruct possible realities. By encouraging and activating the redefinition of the social practice of design ethnography as one of 'looking back from the future', Studio X's organizational culture empowers designers to create a change in their understanding of what 'could be', and to transport themselves to worlds that didn't yet exist, allowing them to take creative action and strategic decisions that affected those potential future worlds. This practice creates a space for the designers to better generate strategies that were considered unusual or divergent.

A Culture of Reflection – What is perhaps most surprising about the culture at Studio X is that no one leaves. At least, no one on the creative side. “It’s Hotel California in here” one design practitioner explained. “Why would you ever leave? You’ve got food here, you’ve got a bar here, you’ve got your people here...why go out?” (Designer F 2017). It is this aspect of the organizational culture that design practitioners point out most often as both a symptom and a cause of their second proposed framework for understanding what design ethnography means to them: to do “research that focuses on looking inward”, you need a *culture of reflection*.

Through the material resources provided, the social structures that are constructed, and the activity forms that are rewarded, the organizational culture of Studio X actively encourages the extension of the ethnographic toolkit to include practices of intra-community introspection and reflexivity. By limiting the amount of acceptable (or billable) time that designers are able to spend with external community members, Studio X creates a culture of reflection: one which encouraged a specific bias towards self-examination rather than engagements with external participants. After all, if there are no hours available in the budget, and you’ve got a community of practice that can easily stand in for both the users and the clients, why wouldn’t you replace the traditional ethnographic approach of ‘making the familiar strange, and the strange familiar’ with research that relies on the familiar to start with? This culture of reflection validates and values acts of reflection and reflexivity in both the generation of data, and the analysis of findings. But most importantly, it affords design practitioners the ability to use their own community of practice as a resource, the ability to actively use the self-reflective production of empathy as a generator of innovative and creative ideas, and the ability to work quickly and effectively using the material and human resources on-hand to meet budget and timing parameters.

Design practitioners describe the data collection stage of their ethnographic practice not as field work, interview work or participant observation, but as a form of disaster checking for design solutions – a method reliant not on external informants, but on intra-community reflexivity and the reliance on members of their community of practice as participants in the process.

“We can test most things out ourselves. That is what we have to do - you get to think about who will be using this in the end and then put yourself in their shoes. I know lots of places have time for working with users - I know the whole IDEO thing - but we don't. So we have to ask each other, but it works, yes.” (Designer D 2017).

“Sure, I guess I could get used to bringing in users. But most of the time, it's the client who is our user you know? I mean, yeah yes we think of the people who come into contact with the solution. But the person who we have to think of most is the client. What they sort of think. Good thing, well I do a good impression of the PM on their side. I can be him no problem!” (Designer C 2017).

When working within this culture of reflection to develop the analytical categories in this phase of the study, design practitioners reiterate that they themselves often perform the role of user in lieu of more externally focused research subjects. This is attributed to the boundaries of time and budget that define each project, and to the repetitive nature of many design engagements:

“I mean come on. How many times, do I really, I mean how often do I have to test something I know will work? I can do that here, we're good at giving the gut check” (Designer A 2017)

A culture of reflection, or of 'looking inward' define both the activity parameters and the practice parameters of research work, and both are highly informed by the organization's larger cultural norms and values. The ability to engage in data collection defined by reflexive practice and intra-community introspection is valued as a “third eye” into a culture, and designers who develop a reputation within the community for being especially adept at this research approach are praised publicly for their “insight” and “understanding” of user groups at studio-wide monthly meetings. In fact, during the fieldwork period, the ability to 'look inward' to generate insight was added as a performance metric on yearly reviews conducted by all team leads. It also serves to validate and value personal experience over the observed experiences of outside participants. Using this framework enables the design team at Studio X to extend their ethnographic toolkit to include the deliberate generation of empathy *without the participation of users or informants* as a research method in their work. This active production of empathy through self or intra-community reflection has been identified by neuroscientists to be a key driver of innovative and creative idea generation (Hines et al. 2017). By including acts of personal and collaborative reflexivity within the framework of 'research', the organizational culture of Studio X creates a space for design practitioners to draw upon their own personal experience to *generate* an empathic understanding of the lives of others. Instead of requiring designers to engage personally with research subjects to understand their experience, the organizational culture substitutes the use of a bias toward self-examination for this form of research work. And by relying on this bias, the design practitioners are able to access their own “... library of life” (as a Senior Creative Director described) as an effective shortcut to generate, test and iterate design solutions for complex and wicked problems. Without the organizational structures fostered by the culture of reflection to support this research work (including the public recognition of individuals who exemplified this skill set and a social license for the position of the designer as a proxy member of the user group) designers would not have been able to extend their ethnographic

toolkit to include the use of intra-community introspection as a methodological asset in the practice of design ethnography at their studio.

CONCLUSIONS

The collaboratively generated findings from this para-ethnographic collaboration highlight the two ‘cultures’ which actively define the lens through which design practitioners at Studio X viewed data collection and analysis practice. This is, of course, the story of only one team, in only one studio. And to complicate the narrative, this particular story is muddled by the addition of a researcher probing, questioning and complicating a team’s daily practice, and their own understanding of their work. And yet, the story of the two cultures that shape the way that designers *do* design ethnography offers a compelling way for me to understand why what happens in the studio looks so different than what happens in the methods textbook.

First, a culture of conjecture rewards a design practitioner’s bias towards forecasting rather than looking at the present during both data collection and analysis phases of their ethnographic work. The use of the forecasting bias acts as an important and effective tool for designers conducting research in a culture where they enter the analysis phase without findings, but with ideas - tasked with ‘remembering the future’ in a room full of white boards and glass walls rather than with sifting through data. Second, a culture of reflection actively embeds a bias towards self-examination rather than engagement with participants outside the design practitioner’s community of practice. By limiting the amount of contact creative team members have with the external user community, and by rewarding the use of intra-community introspection as a strategy for reducing valuable billable hours in each project, the culture of reflection present at this studio embeds a bias towards self-examination. Both of these cultural frameworks act not only to extend the boundaries of the research-focused activities that make up the daily work of the design teams, but also to shape the social practice of design ethnography as it is understood by design practitioners themselves. Operating within a culture of conjecture allows design practitioners to reframe design ethnography as research that focuses on looking back from the future. And by engaging in data collection and analysis within a culture of reflection, design practitioners are able to reframe design ethnography as research focused on looking inward. Both of these frameworks serve to extend the classic ethnographer’s toolkit to include the use of biases informed by designer’s abilities and attitudes while acting as a lens through which design practitioners see the value and validity of design ethnography as a practice form.

The two driving aspects of the organizational culture of Studio X identified in this study—a culture of conjecture and a culture of reflection—are not of course, unique to design studios. Many workplace organizations support, foster and encourage the use of forecasting as a valid form of idea generation. Still more rely on the reflexive skill sets of their employees to continue to innovate and grow. However, few organizational cultures are willing to extend the traditional and normative expectation of what ‘counts’ as ethnographic methodologies to the extent that the culture of the design studio allows. And yet, the world outside the studio is eager to implement designer-led research methods as a tool for generating innovation, creativity and empathy in the face of organizational challenges. So how can we reconcile the two? When the definition of ethnographic methods expands to prioritize the self over the other, and the future over the present, do our expectations of what perspective ethnographic research can offer still hold?

And what happens when, as is becoming more popular (Brun Cottan 2013), we attempt to move design ethnography *outside* of the design studio - and more specifically, when we attempt to transplant design ethnography in its full practice form, rather than its more simplified activity form? What is required in an organizational culture that does *not* possess a culture of conjecture or a culture of reflection, and yet attempts to implement the practice of design ethnography as an approach effectively for their own research and innovation needs? By examining the function of the organizational culture on the extension of the ethnographer's toolkit, and the structures that make the inclusion of the dual biases of self and intra-community examination and forecasting as valuable research methods possible, perhaps we can better understand the structural requirements for the effective practice of design ethnography outside the studio itself. I believe that to adopt the valuable and unique practices of design ethnography *outside* of the design studio - in health care, in policy development, in industry - in an effective manner, we must fully understand the aspects of culture that contribute to its successful implementation inside the culture of the community from where it takes its name.

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NOTES

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1. The field site described in this study requested anonymity for themselves and their clients. As such, the names of the studio itself and the members of the design team participants in this study are pseudonyms.
2. None of the designers engaged on the participating design teams reported any training on ethnographic, participant observation, data analysis or interpretation, thematic coding or field work methods.
3. This portion of the larger fieldwork focused on an augmented reality project being developed by one design team to support an international product launch in partnership with an industry sponsor. Design practitioners involved in this project were tasked with developing an 'experience' to be hosted on an unknown future AR platform, and were challenged to create a new way to test, pitch and composite or storyboard each stage of their work for client feedback and approval.
4. Creative teams consisted of between eight and ten members, led by a single Creative Director. Teams featured up to six designers at junior and intermediate levels, one strategic director, a copywriter and a Creative Director: a professional combination that mirrors the structure of other agencies and design studios of this size in Canada (Statistics Canada 2017). All of the members of the design team are considered knowledge workers, organizational actors with a high level of reflexivity about how they present their culture and their work to outsiders (Islam 2015). As members of the creative class (Florida 2012), the design team works to produce not only digital and print 'designs' in response to client needs, but also ideas, information and perspectives that are at times more valuable than their physical manifestation (Mills and Ratcliffe 2012; Murray 1993). In addition, and of primary importance to this study, they form a group of knowledge workers tasked with conducting ethnographic research, notably without any post-secondary research methodology training². Participants in the design team were 60% female and 40% male, with an average of eleven years of professional experience and four years of post-secondary education. Of note, all members of the design team had been employed at this particular design

studio for five years or more - an anomaly in an industry marked by short term contracts and high levels of career change (Statistics Canada 2017).

5. Designers at Studio X were normally granted 10% of the total billable project time for allocation in one of these four categories under the heading of 'research', though the total number of hours varied due to changes of scope and team size between projects. Junior designers in this particular studio were granted an average of 8% of their total billable time for research work, while senior creative directors were granted up to 65% of their billable time for any of these four categories.⁴ With such specific allocations, the organizational priority placed on designer-led research activities in client facing work was made very clear. This did not, of course, mean that design practitioners on these teams immediately embraced these phases of the project: in fact, they often referred to the process of doing work for these phases as "BOHICA jobs" (or 'bend over, here it comes again') as they scrambled to bill their time appropriately, if not realistically.

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Papers 3 – Vantage Points

The Ethnographer's Spyglass: Insights and Distortions from Remote Usability Testing

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American Eagle Outfitters

This paper examines the cultural counter-flow between ethnography and remote usability testing, specifically what such tools might offer ethnographic practice. I explore how remote usability testing can both extend and delimit ethnographers' sight lines. Because remote testing has a narrow aperture, long sight line, poor context and quick turnaround, I invoke the metaphor of a spyglass in the hands of the ethnographer to understand this increasingly available digital research method. Remote usability testing can quickly access insights and novel footings, while simultaneously creating myopic, distorted or biased understandings. Theoretically, the history of usability studies is compared to that of archaeology as it transitioned from a cultural product focus to a context focus. Practically, several workflows are presented that use the strengths of ethnography and remote usability testing to enhance one another. Finally, ethnography is discussed as a craft-like competence, rather than a method, that crosses increasingly diverse methodological terrain.

Keywords: Design Ethnography, Usability Studies, Methodology

INTRODUCTION

Studying users and their experiences has become a central consideration of digital product development. To this end, digital departments often house social scientists with an expertise in seeking to understand the ways in which people use technological products. Within this environment, claims to this expertise have come from various social science disciplines, each bringing the strengths of their disciplines' epistemologies and methodologies along with attendant caveats. In the case of Anthropology and ethnography, this has often meant entering as an outsider to a context already inhabited by Psychology, Human-Computer Interaction, Usability Studies, Design and Engineering. While EPIC has been a venue for furthering the value of ethnography in such contexts or the implications of having ethnographic methods practiced by those without extended training or fieldwork experience, the EPIC community has devoted less attention to the flow of ideas, methods and epistemologies in reverse—from the digital sciences into ethnography. When this has been addressed, the view has been negative, suggesting that UX has coopted ethnography (Amirebrahimi 2016, p. 87). This paper will examine various dimensions of this cultural counter-flow. What is the value of usability studies to the ethnographic community? What possibilities and limitations emerge when we consider such disciplinary hybridities? Moreover, how are industry tools, specifically remote usability testing (for the sake of this analysis), potentially extending and delimiting ethnography's sight lines? Does an ethnographic stance have the ability to re-imagine the place of usability testing in the course of digital product development?

Viewing the Field from Afar

In his recent book, *Sensemaking*, Christian Madsbjerg (2017, p. 93) encourages those in business to eschew abstract analysis in favor of a kind of phenomenological, in-context research that reveals social actors in their rich, lived experiences. To illustrate, he contrasts the behavior of lions at a zoo—a contrived context—to lions’ behaviors on the African savannah. He exhorts the reader, “Instead of watching lions eating food from a bowl in a cage, go out and observe them hunting on the savannah. Escape the zoo.” (p. 96).

Indeed, there is no replacement for escaping the zoo in recognition that it is a synthetic environment that leads to limited insights about the behavior of the real deal in real context. Similarly, there is no replacement for researchers doing field research in order to gather rich data on their subjects in their context—the proverbial savannah to use Madsbjerg’s term. From a business perspective, however, such “safaris” are expensive and time-consuming even if institutions are aware of the insight they provide. What would our lion researchers, studying the behavior of lions gain from looking in on their subjects at strategic points using train cameras, for instance? While not fieldwork *sensu stricto*, this activity would certainly yield a useful sightline into the lives of lions in their habitats that would both corroborate and extend insights gained from observational fieldwork. Similarly, I argue that usability tools, specifically remote usability testing, have a valuable and unique place in the ethnographer’s toolbox as ways of observing humans in their context and gathering contextual feedback quickly.

Usability Testing Comes of Age

Research addressing digital technologies’ ease of use is as old as digital technology itself. Early in the development of graphic user interfaces and computation, research was conducted by the technologists to validate and iterate on technological prototypes. Eventually as digital technology moved out of the lab and became more widely adopted (Bødker 2006), usability testing techniques largely remained laboratory-based.

In laboratory studies, “users” from a target demographic would be brought on-site where researchers would give tasks, note observations and probe for users’ underlying motivations (Baecker and Buxton 1987). Labs were set up with accoutrement to measure key indicators, such as time-on-task, perceived ease of use, and others to assess the “usability” of the experimental technology in question. The contextual bias of such a testing agenda is apparent to most ethnographers: the development of the methodology, the design of the lab space and the unnatural, unfamiliar technology limit labs’ ability to predict technology use patterns once it is released outside the laboratory setting. Speaking for many ethnographers, Ladner (2014) pointed out that such places can never be sites for ethnographic research “because the need to understand a prototype’s usability crowds out the ethnographic agenda” (p. 187). Ethnography, since the days that anthropologists disembarked from their armchairs and began stranding themselves in exotic locales, has required a particularistic being-in-place that allowed the researcher to meet subjects in *their* context. This is commonly thought to assist in creating an emic research perspective, one that seeks to understand how local people perceive and categorize the world, the logic behind their behaviors behavior, what has meaning for them, and how they perceive matters (Kottak 2006). To be ethnographic is to be emic.

By contrast, laboratory usability studies are the domain of usability researchers and technologists. Research subjects are removed from their daily routine and brought to a place where their behaviors—if not their individual persons—are the grist for a study focused on a piece of technology. The focus, the place, the terms of discourse among researchers all reveal the usability lab as a fundamentally etic location. Thus usability studies, for both focus and location, are distinct from, and antithetical to, ethnography. Indeed, the contextual shortcomings of lab-based usability testing contributed to a data vacuum in the digital technology qualitative research sector that has encouraged ethnography to advance in a complementary manner.

In order to address the shortcomings of lab-based usability research, a number of platforms have emerged for conducting usability research more quickly, in less contrived settings. Remote usability research platforms like UserTesting.com, UserZoom, Lookback, dscout, Userbrain and Morae offer researchers the opportunity to easily recruit participants of specific ages, genders, and socioeconomic groups to participate in studies that the research subjects complete in their own homes, in a café, or while walking down the street.

As an example of a typical un-proctored remote usability test, take the protocol for employing userTesting.com for a usability study. The researcher defines the scope and aims of the study, while crafting a series of questions and tasks for the participant. She specifies the age, gender, income range and nationality of the participant to be recruited.

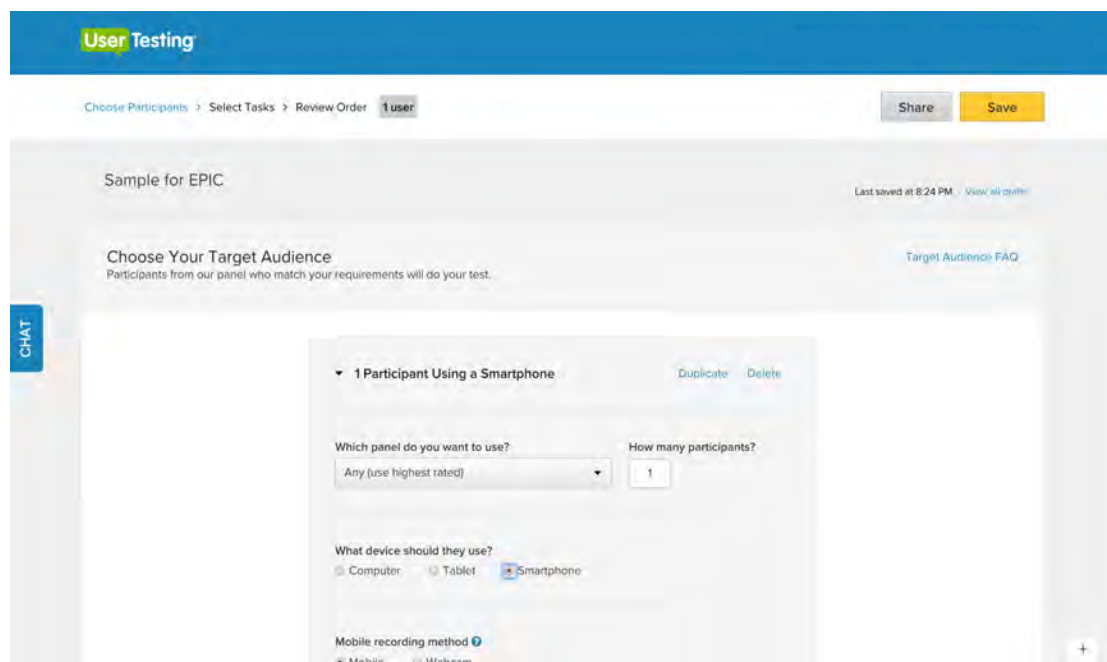


Figure 1: UserTesting.com allows researchers to select participants based on gender, operating system, screen stereotype, age and income. Screenshot taken by author.

When she “runs” the test via userTesting.com’s website, a request for participation is sent to appropriate “testers” from a pre-recruited panel of participants. If these participants are currently free to complete a 15-min block of study participation, they accept the request.

Upon accepting, they are sequentially introduced to the questions and tasks pre-determined by the researcher. An audio-video recording of the interactions is then uploaded to usertesting.com’s portal to be watched later by the UX researcher. In a proctored usability study, the protocol is much the same, though a time must be specified for the researcher and participant to virtually meet for a session that is facilitated by the researcher.

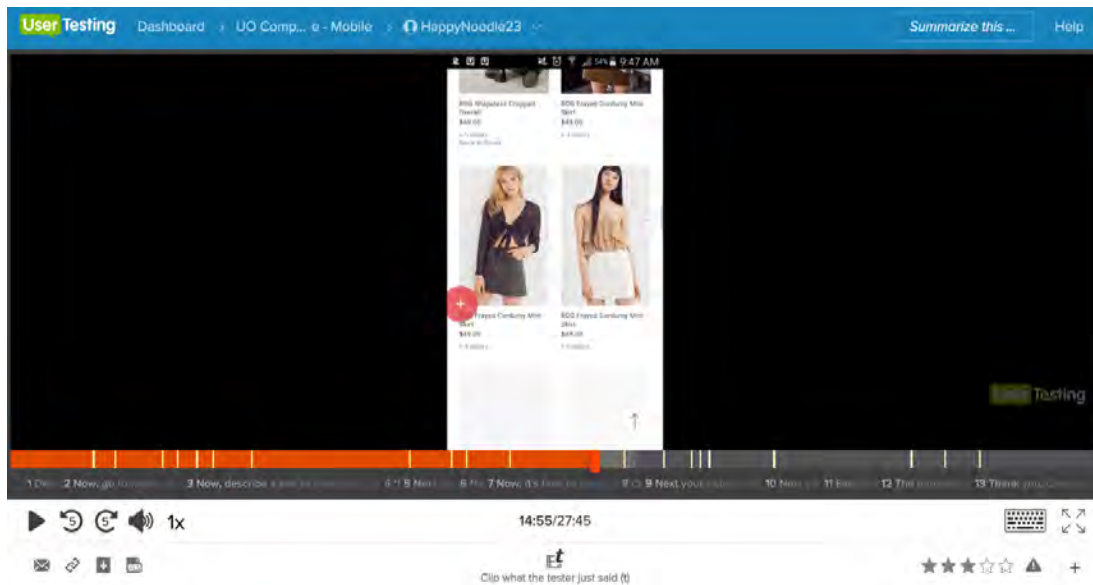


Figure 2: An audiovisual recording of the participants’ interactions is available for annotation and editing. Screenshot taken by author.

These methods of usability testing hold considerable advantages over traditional lab-based usability testing. First, recruiting is streamlined and study turnaround times are greatly compressed. Second, the effect of the physical environment—an unfamiliar place that is outside of the participant’s typical routine—is minimized. Third, affirmation bias derived from a participant’s desire to please the researcher is reduced in un-proctored testing by an anonymous recruitment process through the intermediary platform (provided that branding, and first person language are removed from the testing script and prototype). Fourth, remote usability testing obviates the need to build, maintain or lease expensive facilities. Taken together, these advantages have reduced the costs for conducting usability research on digital products, while simultaneously enhancing research’s ROI by lowering up-front cost.

It is not surprising then, that industry trends indicate greater private sector use of remote usability testing platforms. Since its inception in 2013, usertesting.com’s industry survey has indicated year on year trends toward greater spending and more frequent testing (Usertesting.com Accessed September 15, 2017). The ubiquity of usability studies is demonstrated from the market penetration statistics offered on two of the largest service sites. Usertesting.com reports that more than 34,000 customers use their platform, including the top 10 web properties (<https://www.usertesting.com/who> Accessed September 15, 2017). Similarly, User Zoom reports that since 2007, over 28,000 usability studies involving more than 3,000,000 participants have run through its platform

(<https://www.userzoom.com/> Accessed September 15, 2017). There is a clear trend of companies seeking quick, qualitative insights from remote usability testing.

COLLISIONS OF METHOD AND EPISTEMOLOGY

The observant reader may have noticed that both ethnography and remote usability testing have evolved to address the shortcomings of etic, lab-based testing. This move toward more robust usability research practices has coincided with a greater number of ethnographers finding employment in the private sector rather than the academy. I am representative of both of these trends: an anthropologist-ethnographer by training who regularly conducts remote usability testing in a private sector setting.

From my position as an ethnographer and UX researcher, I have observed evolving tensions of epistemology, methods and timelines. Epistemologically and methodologically, usability testing conducts research that appeals to instrumental rationalism time (Madjsberg and Rasmussen 2014, p. 26) and boasts a quick turn-around. By contrast, ethnography utilizes an abductive research approach that emphasizes depth, unstructured observation and context over rapidity or product-specific results. Many of these characteristics are difficult to sell to certain instrumental rationalists because of its unfamiliarity—it feels to their sensibilities more like aesthetics than analysis.

At the same time, the perceived value of contextual research has been increasing (Bødker 2006). Tech anthropologists are featured in the (Singer 2014). Members at EPIC are well aware of this trend: ethnography is valuable for understanding the meaning of a putative solution in its context. In response to the valorization of context, usability studies have gone remote. What does this mean for ethnographers? I contend that it means both polarization and hybridity.

Polarization is a predictable reaction when two approaches offer competing solutions to a problem. The strengths and weaknesses of each are brought into relief as the approaches prove their relative values. But hybridity also occurs when the approaches are co-located within teams, or even within individual practitioners seeking to understand digital products/services within their contexts. In the case of remote usability testing and ethnography, both may co-exist within the team at a given corporation and within each of the practitioners. There is reciprocal counter-flow embedded in such a hybrid practice: researchers conducting both kinds of research will naturally borrow techniques from each practice. Ethnography cannot be usabilityified without usability being ethnographized. This got me thinking: how does the logic of usability studies affect the ethnography I do? Is my ethnographic imagination somehow at risk of dilution? What is at stake if it is? This is the danger of hybridity—its impurity (Douglas 1969). So then it should be asked, what can remote usability testing lend to ethnographic practice? Is it possible for remote usability testing to be ethnographized—that is used by an ethnographer to further an emic understanding of study population? I argue that it can be.

In fact, ethnography has been used previously to bridge the present—both in the temporal sense and the spatial sense—in archaeology, another discipline that often must draw conclusions based upon fragmentary data. Lessons from the gradual adoption of ethnography into archaeological practice, and the reciprocal incorporation of greater diachronic depth (addressing a critique of early ethnography) offers parallels for understanding hybrid ethnography+usability praxis.

ARCHAEOLOGIZING REMOTE TESTING: TOWARD ETHNO-USABILITY

Archaeology is a social science often tasked—as are remote usability studies—with formulating explanations from fragmentary data, distant research subjects and incomplete contexts. Its evolution over the second half of the 20th century parallels several trends affecting usability studies. Thus, it may offer insights into the process of ethnographizing a previously stenographic discipline. In 1958, Gordon Willey and Philip Phillips weighed in on the importance of cultural interpretation in archaeology. “American archaeology is anthropology or it is nothing,” they said (Willey and Phillips 1958, p. 2). In this statement, they asserted that the goals of archaeology overlapped with the goals of anthropology—which is to answer questions about humans’ social relations. Their statement contributed to the processual archaeological movement, which represented a break from the prevailing cultural-historical school of thought. This schism was important because of resistance to the cultural-historical idea that any insight that artifacts retained about historical people and their ways of life were lost as the artifacts became part of the archaeological record (Wylie 2002). The next generations of archaeologists would attempt to understand the material past in context. In short, the emphasis shifted from the artifacts to the people who were using the artifacts. Shifting this emphasis, however, came with theoretical and methodological challenges due to the often fragmentary, incomplete nature of the archaeological record. Wylie elaborates the conundrum in which archaeologists found themselves:

Archaeologists seem trapped: either they must limit themselves to a kind of “artifact physics” (DeBoer and Lathrap 1979: 103), venturing little beyond description of the contents of the archaeological record, or, if committed to anthropological goals, they must be prepared to engage in the construction of just-so stories as the only means available for drawing interpretative conclusions about the cultural past.

Facing incomplete data contained in the archaeological record, the anthropological aspiration of archaeology seemed to rest uneasily either upon unimportant, obvious trivia or paradigm-informed speculation (i.e., an interpretive dilemma, Wylie 2002, p. 117). Similarly, practitioners tasked with gleaning customer insights solely through remote usability methods face a similar dialectic—report either rote empirical findings with little interpretation (a kind of usability physics championed by those who advocate quantification of usability), or fabricate a theoretical architecture from 3rd party sources (e.g., market reports, competitive audit) to allow for more informed analysis.

The shift toward studying context of use versus strict usability poses similar theoretical and methodological challenges for usability researchers as the transition toward interpretation pushed the boundaries of product-centered research protocols. Early forms of usability testing shared the cultural-historical school’s emphasis on artifacts over social interactions. The beliefs, feelings, and social life of test subjects were considered somewhat beyond the scope of technology testing. I argue here that, similar to mid-20th century archaeology, usability testing must be ethnographic or it is nothing.

If this is the case, usability studies might look to the development of archaeology over the course of the 20th century and incorporate similar techniques to address limitations of aperture and depth. The processual and interpretive (post-processual) archaeologists

compensated for the dearth of complete material evidence of the archaeological record with two broad strategies intended to reduce uncertainty: alliances with positivist techniques and incorporate of ethnography. As processual archaeology developed during the mid to late 20th century, there came to be an emphasis on hypothesis-driven, experimental and quantitative methods to help archaeologists engage in the interpretation of past cultures with less risk of bias and speculation (Wylie 2002, p. 62-64). This work, spearheaded by Lewis Binford, was, in today's terminology, an attempt at a 'data driven' archaeology that, if the right experimental design was applied, would produce durable insights into the past.

After some consternation stemming from the difficulties arising from extreme adherence to positivist principles, post-processual archaeology emerged with a greater focus on interpretation of the past and the past's role in the present. I see an analog with the current moment in usability research: positivist alliances have too often added less value to businesses—which are implicitly anthropological goals whether that is made explicit or not—as big data's insights are less robust than anticipated. Hence, we can observe a convergence in usability studies that is analogous to the second trend that archaeology experienced—contextualization through ethnography. Ethnoarchaeology, the use of ethnography to inform archaeological study, was developed to facilitate extrapolative interpretation of artifacts by learning about social contexts that might resemble the social contexts that bore the artifacts and sites being studied (David and Kramer 2001). This approach proved to be a valuable grounding for archaeology as it transitioned away from pure materialist description. Ethnography became inserted within archaeological practice to provide greater context, while anthropology gained greater reach and time-depth through archaeological and historical studies. Will a similar process bind together usability studies and ethnography? If so, ethnography will gain according to usability's strengths, and vice versa. This theoretical-methodological construct contributes value when considering the possibilities and shortcomings of ethnographized usability.

THE ETHNOGRAPHER'S SPYGLASS: POSSIBILITIES AND LIMITS OF ETHNO-USABILITY

What possibilities are created by the prospect of ethno-usability? Traditional ethnography has a wide aperture, human-scale sight line, thick context and results that are delayed by time necessary for analysis. By contrast, remote usability testing has a narrow aperture, long sight line, imperfect context but near instantaneous results. The complementarity is apparent. To understand the prospects and perils of ethnography+usability testing, let's explore the metaphor of a spyglass in the hands of the ethnographer.

Opportunities of Reach and Footing

The ethnographer's spyglass has the obvious advantage of being able to conduct research and deliver results at great distance, nearly instantly. While traditional ethnographic research methods require travel to the site, lengthy (at least to the sensibilities of some business stakeholders) stays onsite, and time to synthesize findings, remote usability testing offers results to pointed questions within hours. At the same time, ethnography has grappled with the question of reach through the development of multi-sited ethnography (Marcus 1986), p. 171-173). While multi-sited ethnography addresses some problems of reach, it is

prohibitively time and travel intensive in corporate contexts. In this case, remote usability testing allows the ethnographer to follow threads through other field sites after familiarization with the intended study population. Moreover, remote usability testing can provide a medium of communication to continue to build on a research foundation built through traditional, in-context ethnography. The question that I wish I'd asked a key participant, but didn't know would be important? If remote testing is arranged in the research plan from the outset of the study, some remote testing platforms allow for a particular person to be re-contacted to interact with digital prototypes during later development stages. This ability to quickly and inexpensively reconnect with the field—either through recruiting more people of an intended demographic, or by reaching back to participants with whom rapport has been previously built—is immensely valuable as products iterate and requirements evolve. To be able to quickly fill in the gaps of an established ethnographic viewpoint of a population is tremendously valuable mitigating risk and retaining stakeholder buy-in.

Less obvious but equally valuable is remote usability testing's ability to create novel footings for the researcher, participants and stakeholders. Erving Goffman introduced the concept of footing, describing it partially as occurring when a “participant's alignment, per se, or stance, or posture, or projected self is somehow at issue.”(Goffman 1981, p. 128) Footings can change as an interaction progresses. For instance, Goffman goes on to elaborate that two people might begin with an initial footing based on previous knowledge of one another, expectations, clothing or greetings, and then evolve those footings through the course of a conversation based on all of the signs and signals that are exchanged and interpreted during the interaction. In the case of ethnographic research, issues of footing occur regularly, ranging from the power asymmetry of researcher and participant to the privileged access that gender can confer upon certain researchers investigating particular topics. Lacking a physical presence, institutional affiliation, or even further probes or responses to initiate the cascade of subsequent footings, the pre-determined scripts of remote unproctored usability testing serve to turn the dynamic of the discussion toward familiar monologue. For example, if I conduct research for a brand selling intimate clothing, the anonymity and altered footings afforded by the usability testing platforms give me privileged access that my embodied presence as a male 30-something researcher would not allow in a usual ethnographic setting (granted, the data from in-person ethnography with a trusted researcher would lead to rich data of a different sort. I am not suggesting that the remote testing replaces such knowledge, but that I gained access to knowledge I did not have before through the remote testing platform).

Rather than leveraging participant-research rapport as ethnography has traditionally done, remote testing studies can avoid rupturing an emic stance by leveraging the participant's relationship with her smartphone. Many research participants, especially those on the panels provided by remote usability testing services, have developed a deep relationship with the smartphone. For certain populations, this attachment leans toward cyborg-like blurred boundaries between person and machine. Because of the preexisting intimacy with smartphones, the researcher conducting a remote usability test has the benefit of immediately being disembodied, transferred and reanimated as a series of questions displayed on the screen of a familiar device. This gives the remote researcher the advantage that comes from protecting the fabric of daily life.

Furthermore, remote usability testing has the opportunity to deepen a corporate ethnographer's understanding of certain digital offerings by collecting data in the field during micro-moments. A micro-moment is "an intent-rich moment where a person turns to a device to act on a need-to know, go, do or buy" (Adams et. al. 2015). For researchers concerned with the role of digital products and services in their participants' lives, using remote testing to allow participants to participate while they are at a café, on the couch or walking down the street gives insight into the way that usability matters in the field where multiple stimuli are competing for users' attention across time and apps. For example, when an online retailer conducts usability testing of various site features, remote usability tests are deployed to participants who are at home, in their dorm, or in a café. Researchers can choose to start their research in mid-shopping task. By testing in this way, researchers are able to recreate and evaluate the semiotics of orientation, both online and real-world, that are so essential for studying micro-moments but are more difficult to access through standard analog diary studies (SMS-based diary studies do not suffer from this shortfall) that can remove participants from the multitasking mind-space of their smartphones.

The immediacy and reach of remote usability testing tools can assist in gathering preliminary findings. Research participants can be asked to use the camera function on their phones to perform activities commonly associated with in-person ethnography. Participants might be asked to give a tour of their closet, show where voice UI devices are in their homes, analyze the contents of a purse or wallet, or describe in detail the last hour of social interactions they had. Used in this way, remote usability tools can serve to test the assumptions of larger scale ethnographic assignments, thus reducing the costs and risks of a complete research project.

The audiovisual artifacts that are created during the remote usability session also offer executive stakeholders a different kind of access to their customers. Executives or other stakeholders who are accustomed to learning about customer trends through quantitative abstraction are often compelled to re-think a decision after being presented with a video montage of remote usability clips of customers, in their own words, dispelling persistent yet incorrect assumptions held by stakeholders. Opportunities of reach, in this case, extend to the influence that ethnographer-researchers might have by giving stakeholders more visibility into the daily lives of people.

Limits of Aperture and Depth

While remote usability testing is a robust tool, like most research methods, it has limits beyond which distorted results are likely. Not only is it limited, but remote usability testing also has considerable potential to be abused, so its shortcomings should be at least as well understood as the possibilities it creates. Its potential for abuse stems from the allure of the empirical. For those who do not fully understand the importance of context, thick description, etc. that ethnographers understand, the value of ethnography is in its obvious empiricism. Ethnography is highly empirical in that it is grounded in observation and experience rather than theory or pure logic. If ethnography is employed within an organization primarily for its empiricism, and not its insights, there may be temptation to use remote usability testing as an empirical, qualitative stand-in for ethnography.

While remote testing is empirical, its narrow aperture severely delimits the explanatory value of its results without additional contextualization. To extend the spyglass metaphor

quite literally, imagine yourself in a high-rise office building using a spyglass to observe people crowding around a newsstand several stories down and across the street. You see that people are jostling, and working around one another for space. They shift, lines form and dissipate. The customers' movements are irritated and brisk. You see most of them are men. The vendor at the newsstand is gesturing at the small crowd, seemingly to indicate that the desirable item is no longer available. You strain to read lips, scanning up and down the street looking for someone who bought the item in question before it ran out. Empirically, you know that demand for a particular product was exceeded. But why? What was it? Where are the other patrons? What did you miss? While what you saw are important for understanding what happened on the street today—and you surely saw more than you would have by keeping your attention within the office—you don't know what you were unable to see because of the spyglass's narrow aperture. Similarly, remote usability used without other research methods, like ethnography, data/analytics or surveys, to inform broader contexts is liable to provide limited insights that are both shallow, and open to interpretation that is fraught with confirmation biases.

Remote Usability testing is not “Thick” (Geertz 1973) for at least two important reasons. First, its shallow nature must be remembered when tasks or tests attempt to establish personal, contextual parameters such as value, importance or urgency. 15 minute testing slots where participants are rewarded for completing tasks create an incentive structure that undermines its ability to predict urgent, contextual or habitual behavior because those temporal guide rails are artificially pre-determined. The lack of temporal modulation of testing—a feature of long-term observational research—undermines the researcher's ability to judge how much a person cares about the digital product involved or the task at hand. Second, usability testing may be able to integrate a new participant's data into a known knowledge base but there is generally not time to collect sufficient biographical information to place the participant in her individual context. Taken together, these shortcomings severely delimit the ability of data gathered via remote usability testing to stand without contextual data of other kinds corroborating analysis.

PRACTICE AND POSSIBILITIES: ETHNOGRAPHY, USABILITY AND BUSINESS WORKFLOWS

Given the strengths and weaknesses associated with remote usability testing, where might it fall within typical product development workflows? The key to creating a research plan in which the overall methodology is stronger than the sum of the constituent methods (Leedy and Downes-Le Guin 2006) is oscillating between usability testing and ethnography as needed to ensure a recipe with the right balance and order to create a product primarily composed of synergistic strengths.

Standard Project Work Flow: Ethnography → Remote Usability Testing → Product Release

This workflow positions ethnography as the exploratory task, and remote usability as confirmatory. It is the most straightforward process for using the best of ethnography's depth and context gathering to delimit the two primary weaknesses of remote usability test—aperture and depth. At the same time, it takes advantage of remote usability testing's

ability to reach back to the field quickly to gather insights. This workflow may leave valuable data undiscovered by failing to deploy remote usability testing in the early stages to contact more field sites or explore novel footings with participants.

Experimental Work Flow 1: Remote “Usability” Testing → Ethnography → Remote Usability Testing → Product Release

In contrast to the standard workflow detailed above, the first experimental workflow places a round of remote usability testing (not truly usability testing, per se, because its primary concern is ethnographic reconnaissance rather than product-centric insights) prior to standard ethnographic engagement. This might be useful for consultancies or low-budget projects seeking to maximize every moment of work in the field. In this case, remote usability testing is leveraged for its reach/cost-effectiveness. Its shortcomings are smoothed over in the next stage of data gathering. After traditional ethnographic engagement, remote testing is again used to re-contact the field and validate the product in question.

Experimental Work Flow 2: Remote “Usability” Testing/ Ethnography → Remote Usability Testing → Product Release

This workflow is the most experimental. It features using remote usability testing from the field to introduce the creative tension of multiple field sites early in the analysis. This opens up possibilities for a greater range of coincidences and contrasts. For example, if you are conducting a project on the adoption of mobile phones in Argentina, set up a primary ethnographic site in a provincial town with access to a rural area, while simultaneously conducting remote usability tests with participants in Argentina’s urban center, Buenos Aires. Remote testing is used again to re-contact the field and confirm an approach. As a point of strength, pursuing Experimental Workflow 2 makes use of all of the positive aspects of both methods, leading to a multi-faceted, rich picture of the subject matter. This approach has downsides too. First, conducting research in multiple fields can tax a small research team or prolong their time on the road. Second, rich, sometimes contradictory data may accurately convey the complexity of the real world, but also may lengthen the time necessary for analysis. Moreover, it can cause stakeholder buy in to be difficult if different people use contradictory data to retrench pre-existing agendas and cause gridlock.

ETHNOGRAPHY AS COMPETENCY, NOT METHODOLOGY

Warning! For Use Only by Experienced Ethnographers

Looking at the possible workflows above, you might notice that I focus on ethnographers doing remote usability testing, rather than usability analysts doing ethnography. I focused this way in part because of the audience, but also because of an embodied, craft-like component that I argue allows remote usability testing to approach the ethnographic. Remote usability testing is appropriate for ethnographic use only by those familiar with qualitative research praxis who therefore understand the possibilities, limitations and distortions that may arise from the use or abuse of remote usability research. Ethnography is an embodied practice—the disposition and training of the practitioner have tremendous

influence over the research product (Jones 2006) in a way that is difficult to scale or industrialize (Lombardi 2009).

While certain tools and methodologies, such as on-site usability labs, analytics etc., are antithetical to the central, emic proposition of ethnography, remote usability testing is not necessarily antithetical. It constitutes an advanced tool for those with a depth of ethnographic praxis for refining insights and predicting behavior patterns that are relevant to design artifacts which may not yet exist in the open market. EPIC 2016 discussed the possibilities and limitations of democratizing ethnographic praxis beyond expert ethnographers. But how can one sense what one cannot see? That is the responsibility of the ethno-usability researcher, tasked with cobbling together a multi-sited ethnography in which some of the sites were remotely accessed. In the absence of a skilled ethnographer working with a known population, these limitations increase the likelihood that the research will represent distorted understandings of users and/or their contexts. Usability testing of all sorts - proctored/un-proctored; remote/in-person - are prone to confirmation bias when conducted by un-skilled researchers. Perhaps, ethnography is not an external behavior we exhibit, but an aesthetic competency that we can hone and bring to bear using various methods.

What might “count” as ethnography is the ontological debate of the EPIC community. An exploration of the potential for remote usability testing to be ethnographized revolves around ethnographic expertise, rather than any particular method itself. As traditional single-site ethnography expanded to multi-sited ethnography and eventually digital ethnography, standard conceptions of the methods and fields of ethnography have also concomitantly shifted. This shift has exposed ethnography as a competency rather than a methodology. Ethnography is an embodied practice, a stance toward what matters in social life, what should be noticed, what can be forgotten, and what to look for next. Democratizing ethnography exposes it as more of an art than a methodology that can be applied. In a review field-site ethnography, Tom Hoy brings attention to Jan Chipchase’s remark, “Anyone can start conversation and ask questions, but it takes years of experience to become proficient in guiding but not leading an interview” (Chipchase and Phillips 2017). Reviewer Tom Hoy states that this is “a clever move: opening-up the practice to everyone, while simultaneously revealing the skill and complexity of doing it well” (Hoy 2017). This is the crux of incorporating insights from remote usability testing without compromising ethnographic quality—the craftsmanship of skilled ethnographers. How that might be defined, perhaps even as a professional certification (Ensworth 2012), continues to be a matter of debate.

The experience of different ethnographic competencies using the same remote usability testing methodology was recently made during a review of a junior team member’s test annotations—essentially the usability testing equivalent of field notes. For a test that I had noted, “The participant sighs and scrolls, each swipe longer than the last. She says nothing, but I can almost feel her clutching the phone, confused either with our questions but more probably because the navigation elements do not align with her mental models... Her breathing is different from the beginning.” By contrast, the junior colleague noted “Participant scrolls all the way down. Can’t find desired product.” The difference in seeing, selectively ignoring, listening and intuiting are the results of an ethnographer executing and evaluating a usability test. Is remote usability testing Ethnography? No. Can it be ethnographic? It depends on who is doing it.

DIRECTIONS

In this examination of cultural counter-flow, I've asserted that ethnographic practice could benefit from remote usability to answer certain questions at certain times, particularly to help minimize some of its drawbacks.

The convergence of ethnography and usability appears to be occurring at an accelerated rate. Take this paper's writing as a case in point. When I submitted the abstract, the remote usability platform I most frequently use, usertesting.com, did not have the capability to recruit for moderated testing or teleconference-style sessions. Just in late-summer, they have now launched their offering called Live Conversation. Live Conversation allows researchers to leverage their platform to help with scheduling and recruiting participants for conversations that can last as long as the researcher desires (or can afford). This development further addresses some of remote usability testing's weaknesses. Other platforms are sure to launch copy-cat offerings soon. Live Conversation points to an ongoing tectonic collision between these two worlds. Will similar offerings change stakeholder perceptions and threaten ethnographic teams' ability to spend as much time in the field? Will we be required to re-articulate the value of being in-place with participants?

What seems to be clear is that ethnography and UX are evolving, circling a center of gravity that exists outside of each discipline as it was conceived 15, or even 5 years ago. Lessons from archaeology point to greater tension and evolution between approaches that emphasize cultural products, quantifiable data and context-rich insights. As they intersect, hybridize, and divide, we learn more of the strengths and weaknesses of each. As we do, we have a unique opportunity to tinker as ethnographic craftsmen. As the purveyors of ethnographic value in industry, I encourage us to play with these novel forms. A method here, a new technology there and maybe older technologies too. Instead of considering ourselves experts in a method, we should think of ethnographers as craftspeople using what is around to create hybrid forms that further the excellence of their practice. It would seem to me that this hybrid, usabilified ethnography, has gained a toe-hold. We, as practitioners, should work with the strengths of this usability-ethnography hybrid to amplify the power of our craft.

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Papers 3 – Vantage Points

The Object of Research: Considering Material Engagement Theory and Ethnographic Method

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The paper outlines a methodological approach for investigating how consumers create brand meaning using the material resources companies provide. The approach draws from Material Engagement Theory—to discuss the role of consumers in creating patterns of meaning by engaging with objects. It also explicates the role of objects in supporting this patterning. We explain how an in-situ diary tool (dscout, in our case) can be useful to support this approach. We demonstrate our methodological approach in the context of the Red Rooster Harlem, a cosmopolitan restaurant in New York, owned by the celebrity Chef Marcus Samuelsson.

INTRODUCTION

This paper develops a methodological approach for using a qualitative online research platform (in our case, dscout was used) to investigate how consumers create brand meaning using the material and spatial resources firms provide. The research helped us understand how people interact with objects and how they ascribe meaning to these objects in the moment of interaction.

Previous research in the field of consumer culture theory (Arnould and Thompson 2005) has shown that brands weave ideological motivations, such as moral and social values, into the retail environment (Borghini et al. 2009), and has demonstrated how branded stores express ideology (Kozinets et al. 2002). Ideology is present even when management may think it is not, as Kinney and Phillips make clear in their ethnography of how negative stereotypes kept a fashion brand from realizing its potential with plus size shoppers (Kinney and Phillips 2016). Brands often contain multiple ideological stories. Although some of these stories may be initially proposed by marketers, they are further developed when customers engage with the material manifestations of a brand (material objects) in retail stores and after purchase. These objects have an important role in supporting the development of brand stories. However, little is known about how interactions with these material objects help customers to understand, engage, and extend brand meanings.

We present a methodological approach to understand how consumers build brand meaning through interactions with objects and spaces. We provide the theoretical background to understand this approach. Explicating the theories that underpin our methods is a worthwhile exercise in questioning the assumptions that guide ethnographic research, bind its findings, and influence its outcomes. Our approach captures moments of

embodied cognition (Hutchins 2005) and the moments in which a consumer uses ideologically-laden objects to create brand meanings (Malafouris 2013).

Our examples draw on an ethnographic study we conducted at celebrity chef Marcus Samuelsson's Red Rooster Harlem restaurant. The project was not commissioned by the brand and the chef only participated in it as one of the interviewees. The project was carried as an independent project by one of the researchers, and expanded to include two other researchers. We engaged in it over the course of five years, sometimes more intensely than others. The case provides an example of a retail space that is pervaded with ideological stories, and precisely because the Red Rooster is a space where multiple stories are being told, it is an ideal site to understand how objects help consumers experience and create such stories. The method we reflect on here provides ethnographers with a way of understanding how meaning-making happens in ideologically-laden branded spaces.

THE CASE: MARCUS SAMUELSSON AND THE RED ROOSTER

Award-winning and internationally acclaimed, Marcus Samuelsson is chef, entrepreneur, and brand. Orphaned in Ethiopia, he was adopted by Swedish parents in the early 1970's. As a chef, he worked in Europe and on cruise ships, before settling in New York City in 1994. After winning a Michelin star for the Aquavit, Samuelsson open the Red Rooster Harlem, among other restaurants. He wrote several cookbooks exploring his Swedish, African, and African American heritage (Ahad, 2016; Larsen & Österlund-Pötzsch, 2012; Samuelsson, 2003, 2006, 2009). Samuelsson has had endorsements with global and well-known local companies and has a public persona through TV show appearances as a cooking judge and other celebrity engagements, such as cooking for Obama's inauguration dinner. He is a celebrity, a chef, and a philanthropist. He serves on the board of New York's Museum of Modern Art, is a UNICEF Ambassador, and has appeared as speaker at the World Economic Forum. His well-honed story was fixed in his 2012 memoir *Yes, Chef* (Samuelsson & Chambers, 2012; Ahad 2016).

The Red Rooster Harlem opened in 2010 and is the subject of Samuelsson's newest cookbook, *The Red Rooster Harlem: The Story of Food and Hustle in Harlem* (2016). Echoing the characteristics of cosmopolitan locales (Bartmaski & Woodward, 2015), the restaurant's location in Harlem signals cosmopolitan values by virtue of its slightly out-of-the-way location and by its name, a reference to a club that operated during the Harlem Renaissance.

From a branding perspective, the Rooster, as Samuelsson refers to it, is notable for its ability to embody multiple ideological narratives. These stories are woven into the fabric of the brand and become real in the interactions with the objects in the restaurant. These objects offer the Red Rooster customers an opportunity to consume and co-produce the ideological stories featured in Samuelsson's and the Rooster's brand. The restaurant works as a cosmopolitan canopy. Cosmopolitan canopies are defined by Anderson (2004;15) as places that allow "people of different backgrounds the chance to slow down and indulge themselves, observing, pondering, and in effect, doing their own folk ethnography, testing or substantiating stereotypes and prejudices or, rarely, acknowledging something fundamentally new about the other". The restaurant is a playground where these multiple stories come alive. These stories are not forced upon the customers by a clever marketer; they emerge from customers whose engagement brings them into being. For example, in a restaurant like the Olive Garden, the meanings of the objects in the decor are established by the designer.

They do not vary much. The purpose is to convey a certain stereotypical image of Italy. There is little room for interpretation and construction of meanings by customers. In contrast, the Red Rooster Harlem provides a visually-rich environment that is populated by objects of various types, origins and meanings. This diversity of objects and the various potential meanings they may enable, provides interpretive flexibility, allowing customers a much bigger role in ascribing meanings to these objects. This is what makes the space so interesting. . But how do these multiple ideological stories emerge? And what is the role of the material objects in this process of emerging meaning? These were some of the questions that guided our study.

MATERIAL ENGAGEMENT THEORY AND THE MEANING OF OBJECTS

Parallel discussions in the fields of applied anthropology and consumer culture theory have brought into focus the limits of the symbolic approach. In consumer culture theory (Arnould and Thompson 2005), brand meaning is typically understood in symbolic terms. Diamond and colleagues define the set of meanings emanating from a brand with multiple facets (such as American Girl) as “the products of the dynamic interactions” between a brand’s constituent actors (2009, p. 121). These constituent parts can be human or non-human (objects). Yet, as evidenced by tutorials such as that run by Hunt and McCulloch at EPIC2016, there remains a bias towards semiotic theories. These theories have much in common with consumer culture theorists like Grant McCracken (1986). They represent a top-down approach toward the construction of meanings. Others have implicitly critiqued the pursuit of meaning, noting that “there is a limit to how many times we can ask our respondents ‘but what do water pumps really mean to you’ and how many word associations we can ask them to draw” (Lieskovsky, Ramsey-Elliot, and Hill 2012).

The marketing field has recently turned to object-oriented ontologies such as actor-network theory to better account for the agency of actors other than the consumer (Bajde 2013). Epp and Price (2008), for example, emphasized the importance of addressing the ways in which object biographies (Kopytoff 1986) interact with complex consumer settings. Within the discourse of applied anthropology, some in the field have used actor-network theory to account for the role of objects in collecting ethnographic data about ineffable topics such as the Danish concept of *hygge* (Bean 2008). However, these studies have not focused on the interaction between a human and a material object.

To address this issue, we used Material Engagement Theory (MET). As articulated by Malafouris (2013), the central contention of MET is that meaning emerges in the moment of interaction between a human and a material object. MET extends previous theories of cognitive blending (Fauconnier and Turner 2002) and distributed cognition (Hutchins 2005). Hutchins’s work brought to the fore the critical role of material artifacts in the process of thinking, making the powerful point that the cognitive process should not be conceptualized as internal to a single individual, but instead can be better thought of a process that is shared in groups. Malafouris’s contribution is to scale these and other ideas about material agency to the level of culture. If meaning emerges in the moment of interaction, then the objects that surround us can no longer be thought of, as they are in traditional semiotics, as vessels for

pre-existing meaning that can be decoded¹⁴. Instead, in MET, material objects take the central role in the process of cognition. It is through continuous and repeated interactions with and operations on material objects that we make sense of the world¹⁵. For Malafouris, it is from the recursive and culturally shared nature of these interactions and operations that meaning is created and shared.

From a methodological standpoint, MET suggests that the researcher focus on the moment of engagement between research participants and objects. For those of us wading into the depths of material semiotics, Malafouris's work raises the question of whether one could bypass the participant altogether and interview the objects themselves. Interviewing objects is the norm in archaeology, the field from which Malafouris's work emerged. Archeologists do not have a time machine and thus cannot interview the people that used the objects. Following this line of thought, the sociologist of consumption Franck Cochoy has called for "an archaeology of present times" that would focus on the objects constituted by market systems. He suggests that much previous research approaches objects "as some inert substratum which should only be studied through consumers' perception, as if action was only on the latter's side, as if objects could be reduced to what humans think about them or do with them" (2009).

A METHOD FOR STUDYING MATERIAL ENGAGEMENT REMOTELY

The methodological approach we present here arose from our investigation of a cultural scene we observed for five years and where the role of objects in creating and changing meaning was especially apparent. During our research, while many of the objects changed, the many meanings associated with the scene, a busy restaurant, became deeper and more resonant. The space is cluttered with objects, but this has not created chaos, instead, it has created additional value for the brand.

We started with a more traditional market-based ethnographic inquiry—"the deep hanging out" (Sherry 1998)—to sensitize researchers and generate a first understanding of the field. We also analysed the brands' stories in the media, Facebook and Twitter. From this work, we were able to identify the key brand stories. Once we knew the stories, we engaged with an online platform (dscout) as a way of linking real-time experience with the stories we detected. This helped us understand which stories were being told at each encounter between customers and objects.

Though the methodological approach we developed is not platform-specific, we used the dscout online qualitative research platform (Winnick 2012). Other platforms with similar technical capabilities, such as FocusVision's Revelation Global, could be substituted and this method, time and budget permitting, could also be carried out by teams of in-person researchers. The difference is that our approach orients participants in the research to consider and reflect on the moment of engagement and does so through the lens of MET.

¹ An example of traditional semiotic thinking: a car with fins symbolizes the future, therefore if 1960s me interacts with a car with fins, I am accessing futurism.

² In contrast to the example above, in MET, the meaning of a car with fins, for the individual and for the culture, is constructed through interactions with the object, which might include futurism, joy, tragedy, or some entirely quotidian meaning; the meaning is dependent on the situation of the object, the individual, and the cultural context.

Given that the objects in the environment we discuss are visually rich, we asked people to use their mobile phones to register their impressions and reflect on what they have experienced. To do this, participants responded to prompts using the dscout app on their phone while they were at the restaurant. We structured the prompts with the intention to capture moments of meaning-making interaction in different areas in the restaurant and at different times in the customer's visit. What were the key objects and moments of interaction? Which stories were emerging in these moments from the interaction with objects?

Participants were provided with a set of overview instructions as follows:

- To complete this mission, you'll be taking at least 9 photos and one video to tell us about your experience of the Red Rooster.
- After you take each photo or video, we'll follow up with a few questions so that we can better understand your experience.
- Since we can't be there in person, please choose your words carefully to help us understand what you are seeing, thinking, and feeling.
- Here's an overview of the photos and videos you'll take:
 - 1 photo of an object or space that represents your first impression of the restaurant.
 - 3 or more photos of objects in the bar area that help tell the story of the restaurant.
 - 3 or more photos of objects in the dining room that help tell the story of the restaurant.
 - 1 photo of your food order (your main course if you're having multiple courses.)
 - 1 60-second "restroom reflection" video, shot in one of the single-occupancy restrooms upstairs. Here we'd like to act as though you are Skyping with an old friend who's never been to the restaurant and telling them what it's like.
 - 1 photo of your receipt.
 - If there's anything else that would help us better understand your experience, we'd love to see that, too!

Our intention was to capture as best we could the natural arc of engagement that occurs in a restaurant setting (e.g., first impressions, experiences at the bar, experiences in the dining area, including the food, dishes, and bill, the toilet), and at the same time, to turn a participant's attention to the stories emerging in the space. For example, this is reflected in our instruction to take a photo that represents a first impression, and in the language in the second and third bullet points that request that the participant find objects that "help tell the story of the restaurant." These instructions were intended to reduce the temptation for participants to choose the three most obvious or nearby objects. They had to engage in some reflexivity about the stories they thought were being told and the objects that had a role in telling them. While the photo of the food order and receipt were originally included as check measures intended to ensure that participants visited the restaurant and stayed for a full meal, these proved a useful source of data for us in the analysis phase, as we found interesting relationships between food and drink orders and different participant profiles.

The “restroom reflection” video became a valuable source of data not only about stories, but about the participant’s ways of talking and engaging with objects. Originally intended as a workaround so that we could hear the participants—loud background music is a key ingredient in creating the feeling of a high-energy, fun setting—we found that most participants gamely went along with the setup. The responses to this question typically included an unprompted description of the restaurant and helped us get a handle on just how much most of our participants were enjoying the scene.

For each of the photos and videos, the dscout app guided the participants through the following questions:

1. What is the focus of this photograph or video?

Rationale: This question is useful for two reasons. First, a pilot round of research revealed that participants’ photographs and videos often captured multiple possible subjects. Asking the participant to identify the subject of the representation clarifies this confusion and, in the ethnographic spirit focuses the researcher on the emic perspective from the first interaction with the data. When a video was provided instead of a photograph, the participant’s description is especially important to frame analysis.

2. How do you think this object or space is supposed to make you feel? Did it work? If not, how did you feel instead?

Rationale: This question was intended to help elicit the consumer’s reflexive awareness of the marketer’s intention to ascribe a specific meaning to an object or space. Since much of the literature on themed environments frames the experience as fantasy or escape (cf Gottdeiner 2001), we wanted to better understand how the consumer experiences these meanings. Although we asked about feeling rather than meaning, most participants elaborated their response to this question to account for a meaning that triggered a feeling.

3. What in your experience outside of this restaurant does this object or space remind you of? You might think of another space, place, time, or person, for example.

Rationale: Here we were looking for references—metaphorical bookmarks in the consumer’s mind—that were linked to previous experiences or knowledge. We were inspired by Latour’s conceptualization of references that circulate in a chain (Latour 1999; Bean 2008) and Akrich and Latour’s description of shifting in and shifting out as displacements in actor, space, and time. We were curious to identify how the objects associated with the brand constituted meanings through their linkages to other people, places, and histories. For example, one participant associated a decorative Kimono with ideals of diversity and the fact that Marcus Samuelsson is a supporter of arts.

4. Marcus Samuelsson has said that the point of this restaurant is to spark a conversation. Give us an example of a couple of lines of a conversation you think this object or space might spark.

Rationale: This question goes to the heart of MET by asking the participant to give us an example of meaning in action. We wanted to see how participants could engage with the objects in order to co-create meaning. Remember that in MET, meaning emerges in the interaction between objects and participants.

TYPES OF FINDINGS THIS METHOD AFFORDS

Our methodological approach has helped us understand how the objects in the restaurant made it possible for its customers to experience several brand stories. The stories that have emerged from the data analysis talk about the Red Rooster Harlem as a cosmopolitan and vibrant place. In each story the place and the brand can be seen in a different light. It is a place to celebrate cultural diversity; a gathering place for the local upscale Harlem community, a place for status pursuit among local customers; a place to celebrate Sweden, a place to celebrate Ethiopia, and a place to celebrate Southern Comfort food. It's a place that supports the arts in general, but also a place for African-American culture. It is this ability to harbour multiple animated conversations that makes the Red Rooster Harlem so vibrant and alive.

Our method has allowed us to see which objects were engaging in these conversations. Customers do not see material objects in isolation as free-floating signifiers. Customers look for clues from other objects in the same space and other brand touchpoints to understand how to co-create meaning using a given object. We discovered that objects were seen as participating in different conversations depending on the social life of that object (Appadurai 1990).

Recall how we asked participants to take pictures of touchpoints that helped tell the story (or stories) of the brand. A Little Richard print on one of the walls of the Red Rooster shows how this works. A participant (Sandra) picked the Little Richard print as one of the touchpoints that conveys one of the brand stories in the restaurant. She took a photograph of the object, which displayed a close-up of the print, identified it as “a painting of... little richard?” and associated it with the story of Harlem as a center of African-American/black culture. Participant Max also picked the same touchpoint as one of the key touchpoints in the restaurant. He took a picture with his camera displaying Little Richard with other pictures on the wall describing them as belonging to a pattern of “photos of black people in various eras on the wall.” Max, similar to Sandra, identified it as enabling two brand stories, “Harlem as a center of black culture,” and “The Red Rooster as a community gathering place.” He perceived Little Richard as part of an assemblage of photos that were, as a group, evoking the community motif. Participant Jessica, who also selected the Little Richard corner as a key enabling touchpoint, took a picture of the print among other objects on the wall, not only the photos of black people. She described it as an example of “artwork displayed throughout the restaurant,” and she described this assemblage of objects accordingly as associated with the stories of Harlem as a center of black culture (like Max and Sandra) and Samuelsson as a supporter of the arts. Participant Dawn framed her photograph differently: she included not only the print of Little Richard, but also the photograph of Lana Turner wearing a red dress. For her, the pattern generated by the two pictures together evoked “the Rock and Roll Hall of Fame where there are pictures of famous artists,” and also led her to indicate that these objects communicated the same stories as Jessica identified, plus a third: diversity, most likely referring to the catalog of famous diverse characters represented by the drawings and paintings throughout the space. Participant Terri also photographed the Little Richard print, but she included a recipe reproduced in Swedish on the wallpaper; for her, the

painting and the contrasting wall helped constitute three stories: Harlem as a center of black culture, civil rights, and diversity.

Note that the Little Richard print worked as a resource in the building of many stories, that is, the object's affordances allowed it to be a building block in the construction of several different stories. Each object had the potential to participate in a number of different conversations. However, the actual stories that emerged through the interaction with customers depended on how each customer engaged with the Little Richard print in conversation with other, proximal objects. Each association reinforced a particular aspect of the Little Richard print. So the blackness of the print was activated when seen together with black meanings; the celebrity aspect of it was highlighted by the other celebrity pictures in the room. From our perspective, we began to think of the Little Richard print as especially talkative because it can relate to various objects. Its various aspects (affordances in the language of MET) were activated by the associations consumers saw among objects and between the objects and consumers' own expectations. Note that the restaurant can only suggest possible stories; the actual meaning-making, i.e. creation of situated meaning, depends on the person who interacts with these objects.

As consumers experience new objects, some stories become more apparent. For example, other objects "talk" about blackness and as a result, the overall experience of the restaurant is animated by these personal engagements with blackness. As a result, blackness becomes an important, emergent story in the setting. Inspired by MET, we call the process through which a story - or multiple stories - emerges from customer engagements with multiple objects *patterning*.

We contend that patterning restricts the meanings afforded by an object. For example, the Little Richard print can be used to tell multiple stories, but only the recurrent stories - the ones that emerge from patterning in the interaction with other objects - survive. These stories tend to be a subset of the potential meanings afforded by the object. An object that could hypothetically afford five or six different meanings ends up participating in two or three conversations because only these two or three conversations are underscored by the other objects that, in line with Appadurai's thinking, are part of the social life of a given object.

Some objects were more talkative than others, that is, they were capable of participating or starting multiple conversations. So, the Little Richard print was much more able to relate to other objects—we saw them represented in conversation with other objects—than a decorative white head of a moose hanging on the wall. A few participants chose the moose as a key object in the restaurant, but all saw it in the same way: as part of a conversation about the restaurant's Swedish heritage.

REFLECTIONS ON OBJECT AGENCY AND THE POSITION OF THE CONSUMER IN APPLIED ETHNOGRAPHY

In this paper we have explicated a methodological approach to explore how consumers create brand meaning using the material resources companies provide. To attain this goal, we have delineated the theoretical basis of this approach as it advances a particular understanding of how meanings emerge in the interactions of objects and people; it is an approach that sees objects as possessing the capacity to initiate conversations with people and for meaning to emerge from these conversations. The paper has explained the

ontological underpinnings of MET (Malafouris 2013) and its usefulness for understanding the role of material objects in supporting customers' engagement and creation of meanings. It emphasizes the agency of objects and the role of consumers in creating meaning through engagement with these objects. Whilst MET has provided the theoretical basis for this method, dscout has provided the technological support to the in-situ diary method. One advantage of in-situ diary methods is the ability to capture an evocative set of data, which includes visual evidence such as photographs and videos (Anderson, Levin, Barnett & Bezaitis, 2015). The use of visual evidence and video has meshed well with our intention to explore the meanings gathered through interactions with objects.

The methodological approach presented here provides the theoretical background, rationale, and procedures to use an in-situ diary tool (dscout) to understand how interactions with material objects can create specific brand meanings. Our analysis of the data from dscout has demonstrated how customers interpret and extend the meanings of objects at the actual moment of interaction. We have shown that meanings vary depending on the situated conversations customers see happening among objects and between themselves and objects. This approach can be used for several different ends.

Researchers can use this methodological approach to:

- inventory brand-relevant conversations and map desired brand meanings onto objects (e.g. understand the role one object may take in multiple conversations);
- identify talkative objects (e.g. Little Richard print in this paper) that are good for engaging many customers versus taciturn objects (e.g. the Moose in this paper) that are good at highlighting fewer, but key stories;
- flesh out how objects that help sustain these different conversations (e.g., understanding whether they initiate new conversations, change topics, or simply nod to the existing conversations) ;
- understand how the modification of existing brand-related objects or the introduction of new objects might impact the meanings produced by customer engagement (i.e. explore the new conversations do these object bring to the table).

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Papers 3 – Vantage Points

Doing Good is Hard: Ethics, Activism, and Social Impact Design as Seen from the Grassroots Perspective

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This paper shares the experiences of two teams of design professionals working on parallel grassroots social impact design projects to address poverty and financial precarity in Silicon Valley and London. This paper explores challenges facing these teams as they channel a sense of moral outrage into the research and development of alternatives to high-risk financial services like payday loans. It charts the open, inclusive design process of these teams as they engage community partners and recognize the financial expertise of people getting by on tight incomes. The paper concludes with a discussion of how working slowly and openly through transdisciplinary communities of practice—like the two groups described here, or EPIC itself—can help keep alive conversations around power and activism in the practice of design and ethnographic research. These conversations are essential if social impact design is to reach its transformative potential while avoiding many of the pitfalls that have led to the failure of well-intentioned poverty alleviation initiatives in the past.

INTRODUCTION

Fuck you. We're taking you down. They're going out of business by next year. That's my goal. Let's get rid of these people. They're parasites. They're the worst.

That is Nick Durant,¹ co-founder of the design consultancy Plot London, uncharacteristically “riled up” about predatory payday lenders targeting low-income communities in his neighborhood of Tower Hamlets, London (Shelly 2016). He is confident that his small grassroots² team of design professionals can help alleviate local poverty by developing compelling, ethical alternatives to predatory financial services. But how does a team like this—unmoored from the institutional constraints and supports of a traditional design project—decide how to ‘do good’ as citizens and activists? More broadly, what lessons can grassroots efforts offer other designers and ethnographic researchers attempting to affect positive social change?

Here, I share the stories of two parallel, self-directed teams consisting of design professionals and anthropologists: FAIR Money in the San Francisco Bay Area, and Plot London in the United Kingdom. These groups are working to develop alternative financial services grounded in the experiences of people who normally must rely on risky sources of credit like payday loans to make ends meet. FAIR Money and Plot London face many ethical and practical challenges as they venture outside of their accustomed corporate and academic contexts, partner with local advocacy groups, and attempt to address the financial precarity in their neighborhoods. Although initiated independently of one another, both teams share the goal of using hybrid approaches that leverage ethnographic research and service design to help people affected by financial exclusion.

I initially joined the FAIR Money collective when I was two years out of design school, optimistic that I could translate my design skills into creating locally-relevant, sustainable,

innovative approaches to the intractable problems of poverty and inequality. When I decided to get my master's in applied anthropology, my optimism was tempered by a head full of articles critical of social impact design failures and poverty alleviation projects that ended up harming communities they sought to help. For my thesis, I wanted to identify ways these negative outcomes could be averted. I decided to research FAIR Money as part of an effort to think with fellow designers and ethnographers as they navigate the difficult process of designing for social impact. During this research, I had the good fortune to meet Katie Shelly through the Ethnography Hangout online community. Shelly was a fellow student in the United Kingdom (she has since graduated) who recorded a podcast documenting Plot London's quest to develop alternative financial services. Eventually, Plot came to build on the work of FAIR Money, and the Plot team's experiences became an important comparative case for my research on FAIR Money.

The stories of these two teams contribute to a broader discussion of the complicated ethical considerations surrounding impact design projects that work with marginalized groups, as well as the challenges and opportunities in grassroots collaborations. I begin this paper by providing some context for these projects in the history and discourse of both social impact design and applied anthropology. I go on to describe how FAIR Money and Plot London channeled their sense of outrage into research and action, and the insights contained in their experiences. I conclude with a discussion of how working slowly and openly through transdisciplinary communities of practice can help keep conversations of power and activism alive in the practice of design and ethnographic research.

THE CONTEXT FOR ACTION

A Brief History of Social Impact Design

Under a variety of labels—humanitarian design, design for the majority, or social impact design—designers have long exhorted one another to set aside the production of consumer products for a relatively wealthy minority, and to instead refocus their attention, aided by ethnographic methods, on the many "wicked problems" facing marginalized groups ignored or underserved by the market (Papanek 1984; Schwittay 2014; Thorpe and Gamman 2011). As design professionals increasingly apply their research and iterative problem-solving approaches to humanitarian challenges, however, they have been criticized, by anthropologists and designers alike, for repeating problematic practices of mid-twentieth-century poverty alleviation and international development projects. Anthropologists have long and loudly critiqued these projects for being top-down or neo-colonialist in nature, with a litany of deleterious effects on the very marginalized communities they sought to improve (Scott 1999). These critiques draw attention to the ways in which development discourses tend to legitimize experts' modernist and technical ways of knowing, often to the exclusion of indigenous knowledge and consideration of community-led political action. The contributions of anthropologists themselves to development projects have also drawn criticism, sparking conversations about when, how, and if anthropologists should directly engage to support the marginalized or impoverished communities with whom they often work (Nagengast and Vélez-Ibáñez 2004, 1). Despite (presumably) good intentions, humanitarian designers and anthropologists have thus been labeled imperialist for attempting

to reshape impoverished communities according to Western conceptions of modernity and for aligning themselves with the interests of local elites (Tunstall 2013).

A recent surge of interest in design thinking for development within civil society organizations, design consultancies, corporations, and governments has reignited these debates (Tunstall 2013). Compounding these issues, designers and anthropologists in commercial design practice are drawn into a depoliticized discourse centered on user experience. Referring to someone as ‘the user’ can prune away uncomfortable considerations of power, class, gender, and ethnicity, ignoring the complex “bodies” of actual people who cannot be reduced to one-dimensional subjects. In his 2016 EPIC paper *The Rise of the User and the Fall of People: Ethnographic Cooptation and a New Language of Globalization*, Shaheen Amirebrahimi (2016) explains how rich ethnographic insights often become pared down to only those details directly relevant to a particular user’s interaction with a product or service. In this way, the language of the user hides the fact that all design, regardless of being explicitly labeled as ‘social impact design,’ has the potential for broad social impacts. Humanitarian praxis brings into high relief the ethical quandaries and politics of commercial product design, as well as the social distance between decision-maker and the persons affected by the decision. Social impact design for financial inclusion compounds the dehumanizing abstraction of ‘the user’ with a similarly loaded term: ‘the poor.’

Financial Inclusion

The FAIR Money and Plot London collaborations fall loosely under the umbrella of a growing financial inclusion movement, where many of these issues come to a head. Financial inclusion aims to bring affordable financial services to low-income and rural communities that have traditionally lacked access to them (Schwittay 2011). Financial inclusion initiatives include: micro-loans to help set up small businesses, community savings groups that help families weather times of hardship, money transfer services that can quickly and securely move remittances around the globe, and the financial literacy needed to make use of these services. Proponents of financial inclusion insist that these services are necessary for people globally to build economic resilience and lift themselves out of poverty. A broad spectrum of technology companies, banks, governmental agencies, universities, and philanthropic organizations invest in and research financial inclusion. The financial inclusion movement began in international development spheres with microfinance institutions like the Grameen Bank. Financial inclusion proponents remain focused on providing accessible sources of credit, but have recently branched into other banking services, such as money transfers and savings accounts, often enabled by the global proliferation of mobile phone technology. Financial service providers are also growing more interested in creating services for low-income communities in the West, including centers of financial innovation like San Francisco and London at the heart of this paper. Financial inclusion is driven by established financial service providers like Mastercard, and by financial technology (fintech) startups looking to outmaneuver the old guard by creating new financial infrastructures.

An essential tension exists in the financial inclusion movement between its humanitarian mission and the profit-driven financial industry that will be integral to most financial inclusion efforts (Maurer et al. 2013). Despite the effort and hope being placed into an expansion of the global financial system, anthropologists have led a critique of the negative effects of financial inclusion projects, seeing familiar exploitative, depoliticizing patterns that

neoliberal development has historically brought to marginalized groups (Ferguson 1994). Providing financial services to poor households can enmesh people deeper into an unequal global marketplace and unsustainable levels of debt. Skeptics of public-private social impact projects aimed at the so-called Bottom of the Pyramid (BoP) fear that efforts like financial inclusion refashion marginalized groups into passive consumers, leaving them open to manipulation and exploitation (Schwittay 2011; Elyachar 2012).

Looking to the Grassroots for a New Perspective

Much of the research, criticism, and optimism around design thinking approaches to poverty alleviation focuses on projects undertaken by multinational corporations, well-funded design consultancies, and powerful non-governmental organizations (NGOs). But what happens when the complexities of negotiating with funders and large bureaucracies are removed from the equation and designers and anthropologists are left to their own devices? In exchange for this freedom, the ideal of achieving ethical, inclusive impact design is in many ways complicated by working outside of a large organization. In the following sections, I describe how Plot and FAIR Money—two self-directed teams of ethnographers and design professionals—attempted to research and develop financial services for and with low-income populations. The teams confronted many ethical and practical challenges as they grappled with the social complexity surrounding inequality, poverty, and financial inclusion outside of the familiar constraints, guidance, and funding of working for a well-defined institutional client. The stories of these two projects are not meant to be held up as ideal models, but they do provide four valuable lessons for engaging in the messy, fraught process of translating outrage over injustice into ethical action:

1. *Start humbly and listen.*
2. *Slow down and redefine what it means to act.*
3. *Work openly and inclusively.*
4. *Bring friends from other disciplines.*

Before exploring these lessons in detail, I first introduce the teams and provide some necessary context for how their projects came to be.

ABOUT FAIR MONEY AND PLOT LONDON

In 2012, Silicon Valley, California (like much of the United States) was struggling to recover from the shock of the Great Recession. The Occupy movement had recently helped elevate conversations on wealth inequality and predatory lending into the public consciousness. In this environment, outrage over the preponderance of high-risk, high-cost financial services like payday loans being targeted at low-income communities led design researcher Marijke Rijsberman to form the FAIR Money collective. The small group she brought together primarily consists of fellow design researchers and academic social scientists from around the San Francisco Bay Area. They volunteer their spare time to address growing wealth inequality and financial precarity in their region by researching and developing ethical alternatives to predatory consumer debt. FAIR meets over a potluck lunch once a month in a member's home. Membership is constantly shifting depending on availability and interest,

but currently there are around eight regular members, many of whom have been with FAIR Money for two or more years. I have been a member of the group since attending one of their outreach events in 2013, and I began interviewing members and documenting FAIR's monthly meetings during the spring of 2017 as part of my master's thesis in applied anthropology at San José State University.



Figure 1. A typical FAIR Money monthly meeting (December 2016). Photograph credit Marijke Rijsberman, used with permission.

In the summer of 2016, design consultancy Plot London independently initiated a project similar to FAIR Money's. The economic turmoil following the recent Brexit vote and what one member of the team described as a "worse than Thatcher" austerity government had highlighted the contours of the centuries-old pattern of poverty in the Tower Hamlets borough of East London. The designers at Plot London were outraged by the "poverty premium" or increased expense for everyday goods and services—particularly financial services—that wealthier people do not have to pay. The political and economic climate had made the usual corporate clients scarce for this small design consultancy, so they decided to take on a passion project to design alternative financial services for low-income people in their community. The two Plot partners teamed up with a local experience design master's student they had been mentoring named Katie Shelly. As part of her thesis, Shelly recorded a podcast called *At Your Service*, which documented her work with the Plot team on their Fair Finances project. (To eliminate likely confusion, from now on, I refer to the team in Silicon Valley as 'FAIR' and the team in London as 'Plot'). As an established consultancy with a

dedicated studio space, Plot is more structured and focused than FAIR. However, this project was a significant deviation from Plot's commercial design practice.

Finding Alternatives

Both groups faced the unfortunate reality that payday loans are one of the few sources of credit for many people when money is tight. For a fee, payday lenders discretely and conveniently provide small amounts of cash (up to \$300 in California), regardless of credit history. These loans help people weather financial emergencies when living paycheck to paycheck. They fill the gap when the cost of living outpaces earnings. Payday loans can cover bills that come due regularly, despite inconsistent income sources like tax refunds or seasonal employment (Halpern-Meeke et al. 2015). They can also potentially destabilize the precarious finances of households. At an annual interest rate of over 400%, what might seem like a manageable one-time loan can balloon to many times the original amount borrowed, necessitating one loan to pay off another and trapping people in debt.

While they channeled their initial outrage into different forms of action, Plot and FAIR shared a belief that, with their extensive experience in ethnographic research and service design, they could identify and develop alternatives to predatory financial services like payday loans and respect the lived experiences of people using them. By partnering with individuals and organizations in their communities, Plot and FAIR could intervene in a banking industry that had, for decades, often either ignored or exploited people living on modest or inconsistent incomes (Baradaran 2015). The hope that inspired these projects can be summed up in this quote from the *At Your Service* podcast's first episode:

[Mike Press, Katie Shelly's academic advisor] Service design, if done properly, if done inclusively, is about shifting political power to people and communities.

[Katie Shelly] This definition of service design, about putting power back into the hands of ordinary people using creative tools...I love it. It's this kind of thinking that makes me want to work in this field.

Easier said than done. As can be seen in the following sections, these projects often encountered challenges (and unexpected opportunities) as they put their ideals into action.

STARTING HUMBLY AND LISTENING

While many members of both Plot and FAIR had extensive knowledge of community development as well as experience working with people living in poverty, they had much less knowledge about other financial inclusion initiatives and the landscape of existing anti-poverty groups in their respective locales. Because of this, both groups began from a place of humility, maintaining an awareness that generations of others had tried and failed to address poverty through service and policy interventions. The groups agreed that they should, above all, avoid making the situation worse for people by rushing to conclusions or perpetuating stigmas around poverty. Early research attempted to sketch in the outlines of what had been, or could be, done. This included mapping the various institutional stakeholders the groups could learn from or potentially partner with, such as financial service

providers and advocacy groups. Both teams also tapped into books and reports containing ethnographic accounts of living in poverty. This familiarization portion of the research process, like many other aspects of these two projects, did not take place in a linear fashion, and is constantly being revisited and expanded to account for shifts in government policies, or to simply dig deeper into an issue mentioned during an interview.

This general knowledge informed the original ethnographic research undertaken by Plot and FAIR. Marijke Rijsberman gave the following reasons for grounding FAIR's work in ethnographic research:

We have come to understand that the biggest gap, the biggest hole in the vast tapestry of both predators and do-gooders, is in human-centered perspectives. There are many proffered solutions, but they are top-down, ideological, and inspired by outdated constructs that may have had some relevancy in a less unequal past, but that have nothing to do with the realities of people trying to make ends meet under conditions of exceptional inequality. While there is quantitative data that propels many to do something, what's missing is the ethnographic insight that will anchor those solutions in concrete reality, in the actual lives lived by the intended beneficiaries. (Rijsberman 2015)

FAIR's goal in their first study was to understand the financial practices of local payday loan recipients, in order to learn more about what it takes to make ends meet on modest incomes in expensive Silicon Valley and what circumstances surround decisions to take out payday loans. To understand these relationships with and through money, FAIR researchers employed a research protocol modeled more on corporate design research than academic anthropology.³ They used Craigslist to recruit ten participants from around the San Francisco Bay Area. From this, they were able to form a sample group of recent payday loan recipients that was generally representative of typical borrowers. Participants in the study were unexpectedly self-selecting, many of them describing their frequent use of studies like this one to supplement their limited income. FAIR researchers conducted two two-hour in-home interviews with each participant, spaced one month apart. They also asked participants to diagram their financial relationships and diary their spending over the course of a month. The members of FAIR Money combined their ethnographic research insights into a report, *Good with Money: Getting By in Silicon Valley*, in early 2015 (2015).

Plot took a different, more iterative approach with their project, one that bounced between research, ideation, building prototypes, and soliciting feedback. They reached out to experts and leaders from local non-profits they had identified in their preliminary research and talked to small business owners who were generally receptive to the idea of helping administer services like small community loans. When they tried to include people with first-hand experience of poverty in their project, however, Plot's lack of an institutional partner made accessing research participants difficult. Local poverty advocacy groups and non-profits were skeptical of this team of designers. Unsure of Plot's motives and long-term commitment to seeing its work through to implementation, these advocacy groups were understandably reluctant to connect Plot with their clients. Further compounding Plot's challenges with access were deeply-ingrained social stigmas around class and poverty in the United Kingdom. Plot researchers had a difficult time getting people to talk about money—a task even more difficult, they joked, than getting people to talk about their sex lives. In California, FAIR money had to contend with similar negative associations around poverty and living on government assistance; few of their participants were likely to identify themselves as 'poor' (Halpern-Meekin et al. 2015).

When they became aware of FAIR’s report, Plot used the profiles of payday recipients in *Good With Money* to fill gaps in their own understanding. FAIR’s research helped Plot to develop rough financial service prototypes and proposals as prompts for co-design, which, they hoped, could subsequently generate research insights with the direct input of low-income collaborators at a later stage. In this way, the act of design became an integral part of Plot’s research process, replacing (in the eyes of the senior designers) the need for replicating research already conducted by others. Even so, in her podcast narration for *At Your Service*, Shelly describes her unease at beginning to develop solutions based only on accounts that Plot was receiving secondhand. When Plot did eventually have the chance to interview people who had experienced poverty in London, FAIR Money’s example helped to focus their approach.

In their research analyses, both groups grappled with the complex web of relationships and obligations that can either strain or strengthen a person’s financial situation. Tracing flows of money can give a researcher insight into a person’s values, hopes, and fears. Money is important in its ability to be both personal—in terms of the ways in which people “ earmark ” money for particular purposes or to remember its provenance—and impersonal—extending relationships beyond households and known entities and into the open marketplace (Hart 2007, 15). Some of the people FAIR interviewed were driven to take out high-interest payday loans due to inconsistent income streams. Others made seemingly irrational choices (if one assumes a wealth accumulation motive) that only made sense in the context of family obligations. And many shared inventive strategies for cutting costs or navigating complex government assistance programs. FAIR researchers found that their participants were often very adept at managing the little money they had, and that payday loans could be part of a rational—if risky—strategy when there were few alternative sources of cash.

The stories told by participants in FAIR’s study deeply affected the FAIR team, and eventually, Plot as well. Over the course of their projects, both teams came to revisit their assumptions about the financial lives of people living on modest incomes. The groups began to question the popular notion that a lack of money management skills was the central problem faced by those in poverty. In its report, FAIR Money adopted the phrase “good with money” as a positive alternative to negative, persistent “culture of poverty” portrayals. Culture of poverty arguments tend to see the poor as financially illiterate and not possessing the self-control or knowledge to grow their wealth (FAIR Money 2015; Stack 2003, 23). Considering FAIR’s participants in a positive light refocused attention on structural financial stressors, like the inaccessibility of alternative sources of cash and credit.

SLOWING DOWN AND REDEFINING ACTION

The design professionals on both teams were accustomed to the narrowly-defined problems, tight timelines, and concrete deliverables of commercial design practice. But making sense of the complex interpersonal and institutional relationships surrounding financial services for low-income people takes time. Agreeing on how to act ethically and effectively upon research insights is not a straightforward process, and collaborating and building trust with a diverse, sometimes difficult to access, group of stakeholders can further expand project timelines. Plot’s project has stretched on for months longer than initially intended, and FAIR is now in its fifth year. Members of both teams have come to see this slower pace as a virtue.

Katie Shelly echoed this sentiment as she tried to apply the IDEO model of design she had learned in design school to her work with Plot:

The IDEO method and other design tools like the double diamond indeed make sense for an industry context, where novelty and speed are key objectives for a commercial client. I wonder whether an efficiency mindset is appropriate for social impact projects. We must question whether industry-built design tools are really going to serve us in a social impact context [...] The pace ought to be slow and sure. From a commercial viewpoint, this way of working would be called inefficient. (Shelly 2016)

The shifting temporalities of FAIR's workflow demonstrate evolving attitudes towards efficiency and action. FAIR's original intention was relatively narrow: to develop an ethical alternative to payday lending that could quickly build from research insights to implementation. Free from funder expectations and institutional pressures, however, FAIR members had the time to reflect, and with reflection came constant internal debate about the best ways to effect change. FAIR members sought to distance themselves from efforts that tried simply to shut down payday loan shops while failing to address the reasons why people take out payday loans in the first place. FAIR also critiqued financial literacy courses, which they saw as providing superficial solutions that failed to account for the social complexities of low-income household financial management. The roots of the problem were much stickier, and required a slower hand, a tempo which frustrated some early FAIR members coming from the faster pace of design studios.

As the composition of the group shifted to include more researchers and fewer designers, FAIR began to focus more on the interconnected issues that drive people to take on unsustainable levels of consumer debt. A miniscule slice of this list includes: lack of affordable housing, stagnant wages, rising costs of education, inadequate and intermittent government cash assistance programs, stigmas around poverty, and competing responsibilities to family and friends. Each of these multifaceted problems would require its own set of interventions, whether they be through service design, changes to public and non-profit policy, or storytelling that elicits sea changes in the public perception of how poverty is caused and experienced. An easily implemented payday loan alternative seemed to recede farther into the distance, compounded by the part-time, loosely-organized nature of FAIR which made consensus and progress much slower. At times, critique and reflexivity could become paralyzing, bringing efforts at design-led intervention to a standstill.

Storytelling as Activism

As their *Good With Money* report began to circulate, FAIR gradually came to embrace its identity as a "research and storytelling collective," conducting and sharing research to keep alive conversations about economic inequality and the increasing precarity of Silicon Valley residents. What had at first seemed like two opposite poles—outrage-motivated action on the one hand and slowly-synthesizing research on the other—eventually started to align. Communicating the message that lower-income people can be financial experts and innovators (Mosse 2005, 31), in other words, became a form of action that FAIR considered just as, if not more, powerful than designing their own alternative financial services.

FAIR's monthly meetings are now often dominated by coordinating community outreach events or identifying creative media approaches that could help the group engage

with broader audiences beyond fellow academics and design professionals. Embracing research as activism, however, presents new challenges for FAIR. While some FAIR members were excited to hear that their research had been incorporated into Plot's work, others were skeptical of Plot's brand of activism, particularly their willingness to partner with large financial institutions. Many FAIR members take pride in their group's loose organization and independence from the influence of funders. Yet this freedom often comes at a price. Without external funding, group members can find it difficult to engage with the intricacies of inequality as part time volunteers. And without a formal structure, concisely stated goals, or a shared mission statement, FAIR can struggle to describe itself effectively to potential collaborators, be they local advocacy groups, politicians, or newcomers interested in joining the team. FAIR's current working solution to this challenge is to create smaller teams within the collective: some FAIR members could work to design alternative financial services, while others continue on with their research, activism, and community outreach.

Design as Provocation

When I shared FAIR's *Good With Money* report with Katie Shelly in the fall of 2016, I had little idea that it would result in the eventual realization of FAIR's initial project to design alternative financial services. FAIR's research helped Plot shift toward seeing people experiencing poverty in a more generous light as "jugglers" who balance competing demands and income streams with more skill than many living in comfortable financial circumstances. Plot members were wary of fatigue-inducing "poverty porn" that portrays people living in poverty solely as victims or "strugglers" fighting to keep afloat. One member commented that Plot wanted to avoid representations that foster an "aesthetic of people with no power" when publicizing their research findings.⁴ Both groups gravitated towards interventions that refocused attention on the systemic nature of poverty, rather than the failures of individuals. Plot found inspiration in framing low-income people as being "underserved," claiming that this placed the onus on financial service providers and governments to create services that affordably meet the needs of people who are currently forced to take out payday loans.

Perhaps by virtue of being a smaller team working under the auspices of an established design firm, Plot was initially able to follow a more traditional design process—with all the meandering that might entail—moving from preliminary research to proposing interventions in a six-month window. Eventually, they secured a small grant to prototype and test their concepts for four alternative financial services, in hopes that they can find partners interested in implementing these ideas. Plot members recognized the limitations in their role as designers, and were quick to note that their proposed services were meant to be small provocations, a starting point, and not prepackaged 'solutions' to directly address the root causes of poverty. Rather, Plot's prototype financial services became a catalyst for conversation, partnership, and further research. Instead of following FAIR's course of action by publishing a lengthy research report, the *At Your Service* podcast and open studios allowed Plot to employ its open design process as an intervention in itself that could influence institutional and public narratives around the financial lives of people managing on low-incomes.

OPENING UP

Outreach and Demystifying Design

In addition to the slow pace of these projects, Plot and FAIR were also defined by an openness uncommon in either the commercial or humanitarian design industries. Opening up the design process was critical to decentering their authority as designers and to changing public and organizational narratives around the causes of inequality and the financial lives of payday loan recipients. Having the luxury of a dedicated studio space, the Plot team plastered a wall with clips from different articles and reports, which eventually came to include a poster version of the themes and payday loan recipient profiles in FAIR Money's first report. Plot has opened their studio to share their progress and solicit feedback from community members. Additionally, they publicly shared their Evernote research collection, inviting podcast listeners to take a look. Members of the Plot team commented on the openness of this project as a radical, sometimes uncomfortable, departure from their typical client work, which will often permanently stay under wraps.



Figure 2. Plot designer pointing at FAIR Money's report on Plot's studio wall. Photograph credit Plot London, used with permission.

Their willingness to allow a podcast to be recorded simultaneously with their process proved to be rewarding, as it spurred conversations and commentary from around the world and connected Plot with other organizations like FAIR Money. Demystifying and opening the design process is an important, if difficult, first step toward confronting the power

asymmetries that regularly accompany engagements between experts and marginalized groups. For designers accustomed to polished presentations and non-disclosure agreements, regularly inviting the public into Plot's studio to see the visual traces of their inchoate thinking, coupled with the transparency of a podcast, was a radical departure from the norm of their consulting practice. They heard themselves sharing half-baked ideas and failures, and a long wander through "the fog" while they struggled to find purchase amongst the complexities of consumer finance and poverty (Shelly 2016). In the slow, meandering process of grassroots social impact work, small wins can keep the team energized. Thanks to the *At Your Service* podcast and an active social media presence, Plot had feedback in real time, and received a further confidence boost and validation of the value of their work in the form of a small grant to continue the project. Like Plot, FAIR Money holds community engagement events to share research insights or solicit feedback on how problems of poverty and inequality in Silicon Valley should be addressed. FAIR Money maintains a regular public discussion group to keep up-to-date on everything from using post offices as banks to gaps in federal cash assistance programs, while bringing in new voices and providing a platform to talk about what FAIR has learned. In addition to maintaining a public Meetup site, events are often promoted through peer networks of ethnographic researchers in workplaces or online through the Anthrodesign email list or the Ethnography Hangout Slack message board. When someone shows an interest in partnering with or joining FAIR, I, along with other members, quite literally invite that person to our table. At our monthly meetings, invitees can see our struggles to pull together reports and they can join in debates over new projects. In breaking (potluck) bread with us, they hopefully come away inspired by the passion and camaraderie of a grassroots group trying to address social injustices.

Partnerships and the Challenges of Openness

Despite such efforts at openness, FAIR is still struggling to build a more diverse membership that incorporates voices from beyond design research and academic communities while sharing its platform with people who are experiencing poverty (Schuller 2014:411). One of the participants in FAIR's first study was initially eager to help record a podcast documenting the various strategies they use to earn and juggle their money. A mix of technical issues and lack of time has left this project dormant since the fall of 2016. Further complicating efforts to diversify the FAIR collective's membership, people might feel excluded from the team if they lack formal education, or if responsibilities like children and weekend jobs keep them from participating.

Even with these challenges, openness and outreach are critical components to building the partnerships that could see ideas come to fruition. Neither project intended to deliver neatly packaged solutions to a single client on a particular date. Instead, they preferred to influence 'up' and 'sideways' through design provocations and storytelling approaches that help organizations and fellow design professionals approach old problems in new ways. In addition to providing valuable feedback, the practice of engaging as many people as possible in the research and design processes helped these teams find potential homes for their insights. From the start, Plot was working to establish possible partnerships and do what they call "building the receiver" for their designs. They hoped to find "adoptive parents" who would get involved early on and see a proposed solution through to implementation

(unless the Plot team felt like running their own bank, an idea they had little interest in). This plan involved convincing community partners that Plot was committed for the long haul and had thought deeply about the problems facing low-income Londoners. Following its initial push during the fall of 2016, Plot's Fair Finances project has fallen into a slower and steadier pace. Plot's impact work now parallels its commercial work, a mode of part-time engagement that bears a resemblance to the way FAIR works. With this shift to longer-term engagement, community partners that were initially skeptical now feel more comfortable with testing and expanding upon the ideas Plot is proposing. In this arrangement, Plot's work complements the in-house research and innovation already happening at these organizations.



Figure 3. Poster from one of Plot's open studios. Photograph credit Plot London, used with permission.

BRINGING FRIENDS FROM OTHER DISCIPLINES

Combining Approaches from Anthropology and Design

In many ways, these two projects show how the increasing convergence in the fields of design and anthropology can address the various challenges of social impact design for poverty alleviation. Combining approaches from these two fields, Plot and FAIR were able to slowly and cautiously act upon their initial outrage over the injustices in the current financial system. Through storytelling and prototyping, they listened to and elevated the voices of people in precarious financial circumstances. By opening the design process and building trust with partner organizations, they tried to share their platforms with these often-unheard voices.

Beyond these small teams, designers, anthropologists, and international development professionals have shared a wealth of knowledge on how to be mindful of power dynamics and paternalism when working with marginalized groups. Adopting inclusive approaches like participatory action research and co-design can help decenter the authority of design professionals and activist anthropologists (Baba 2000, 33; Thorpe and Gamman 2011). Asset-based (as opposed to more traditional needs-based) approaches to community economic development can identify what existing informal support networks and other resources a community has to work with, and then encourage leaders within that community to mobilize those resources to assert their collective rights or agitate for changes that they want to see (Mathie and Cunningham 2005). However, incorporating more voices into the design process while keeping considerations of power and the political implications of design explicit in our work remains a challenge in practice (Aye 2017). As go-betweens that facilitate and interpret the results of participatory design exercises, designers are often still privileged experts and representatives of their funders (Schwittay 2014, 36-37). Participatory approaches in international development contexts have even been criticized for becoming “tyrannical,” and for disguising or legitimizing top-down policy prescriptions (Cooke and Kothari 2001). Avoiding these problematic outcomes requires approaches that go beyond common discussions of research ethics to think through “the ethical implications of creating things ... designed to intervene in the lives of other human beings” (Murphy 2016, 441).

Plot and FAIR members were wary of repeating problematic historical patterns of ethnographic insights being used by powerful institutions to exploit marginalized groups, a particular concern when working with large financial institutions (Nagengast and Vélez-Ibáñez 2004, 15-17; Tunstall 2013). Plot hoped that keeping their process and findings public could provide a sort of insurance against a partner ignoring their research insights or bending their work toward a more explicitly commercially-driven direction. Opening up the design process also means embracing scrutiny and critique from the public, and from within teams.

In this uncomfortable space, anthropological approaches can help us consider how funders and institutional discourses influence social impact design. For decades, anthropologists have provided ethnographic accounts from working as consultants within international aid agencies. Similarly, perspectives from the burgeoning field of design anthropology give insight into the practice of design and how designers grapple with the “moral implications of intentional intervention” (Murphy 2016:434). These accounts can help open up the black box of large social impact design projects, drawing attention to ethical concerns and power dynamics as they unfold, and leading to the incorporation of reflexive insights into organizational change (Lewis and Mosse 2006). My thesis research on FAIR was inspired by reading these ethnographies and by a desire to illuminate the social impact design process. I am grateful to my colleagues who eagerly contributed their perspectives in interviews with me and through months of my participant observation at FAIR meetings. Thanks to parallel research and reporting on Plot’s project by Katie Shelly, there was an opportunity to reflect and to create a dialogue between the two groups.

Achieving an open and inclusive design practice still presents challenges to designers and researchers working on social impact projects. In a competitive marketplace, design consultancies want to demonstrate their competence to funders, clients, and partners. This can be seen in the polished project synopses on many social impact design consultancy websites, or when browsing the uncritical success stories contained in *Insights Into Action*:

What Human-Centered Design Means for Financial Inclusion, a publication by the World Bank's Consultative Group for Assisting the Poor (2014). Asking social impact design practitioners to submit to a 'warts and all' portrayal and admit to their failures could entail abdicating some of their recently gained authority (Jordan and Dalal 2006). Even so, the veneer of the designer's infallibility can result in real harm for vulnerable groups (Mosse 2013, 233, Scott 1999). Thorpe and Gamman (2011, 224-225) warn that

Such erroneous attribution of responsibility may force designers to overstate or overstretch their contribution to such processes, and in doing so, fail to contribute their own knowledge and skills effectively to address the complex social challenges that require collaboration and contributions from multiple disciplines, agencies and sectors.

Designers and ethnographic researchers are not magicians of creativity. In order to demystify the design process, we must admit to our limitations as well as our strengths.

Doing Good, Better

From my vantage point as an anthropology student with a professional design background, I can see the value to be gained from a convergence of my two fields. Anthropologists can temper the design industry's headlong rush toward developing solutions for poverty by providing evaluations of previous projects. They can also help designers work ethically with vulnerable populations and study historical or institutional factors that perpetuate inequality and poverty. Critically, anthropologists provide cultural context and can point to the "domestic strategies" and community assets that families already rely upon to navigate precarious financial situations (Stack 2003, 27-30). Knowledge of the ethical challenges inherent to impact design is both a blessing and a curse. Constantly critiquing the failures of others and reflexive hand-wringing can lead to inaction. In a self-fulfilling prophecy, anthropologists run the risk of abdicating action to others who may not account for these complexities. With an optimistic belief in the potential of ethnographic insight to bring about sustainable, inclusive change, designers can urge anthropologists to "find ways of going beyond post facto description" and critique, pushing them to craft proposals proactively and engage in activism (Nagengast and Vélez-Ibáñez 2004, 1). As Plot's project shows, designers can help generate prototype services that can be used as prompts for ethnographic inquiry and provide concrete examples that attest to the value of human-centered perspectives. The success of the *At Your Service* podcast and Plot's outreach efforts also illustrates how adept designers can be at reaching broad audiences through a variety of media.

As indicated by the recent explosion of design thinking interest, design professionals have the power to capture the imagination of decision makers in large institutions. Consultancies like IDEO.org or Reboot and corporations like Mastercard are becoming enmeshed in the world of non-governmental organizations and community-based economic development projects. It remains an open question of which direction cultural influence will flow. Will design professionals begin to act more like international development consultants, or will human-centered design principles become a normalized part of how institutions approach poverty alleviation? Harnessing the complementary skillsets and generative tensions between design and anthropology can help social impact design reach its transformative potential, while avoiding pitfalls that have led to the failure of well-

intentioned poverty alleviation initiatives in the past. Remaining vigilant in our consideration of power and breaking down disciplinary barriers can significantly address the concerns of scholars who criticize social impact design projects for promoting neoliberal ideals of entrepreneurship and modernism that individualize responsibility for what are often structural problems (Johnson 2011, 459; Schwittay 2014). These insights do not narrowly adhere to social impact projects explicitly wrestling with wicked problems surrounding poverty. Collaborations between design professionals and anthropologists play a pivotal role in rethinking healthcare, transportation systems, and, yes, financial services. Effectively and ethically engaging with domains like these also requires transdisciplinary approaches that leverage perspectives from design, anthropology, and beyond. Balancing design's bias toward action with anthropology's traditionally reactive stance, and proceeding cautiously and humbly through hybrid approaches, we can keep alive considerations of power in design practice and foster sustainable social change.

CONCLUSION

Lessons learned

To summarize the insights I have taken away from thinking with these teams:

1. *Start humbly and listen.* Plot and FAIR took the time to learn from the work of other researchers and reached out to local advocacy groups to learn from their successes and failures. Most importantly, they listened closely to people experiencing financial precarity, elevating them as experts with important knowledge about how to get by, or even thrive, under circumstances of growing economic inequality.
2. *Act slowly and redefine action.* Quick and efficient commercial design approaches are not always applicable to the complexities of designing for impact. They do not account for the time it takes to make sense of deeply socially-embedded subjects like money and to identify courses of action. While it may not be feasible for other teams to work on a project over the course of months and years, building trust with partner organizations and challenging entrenched narratives surrounding poverty cannot happen overnight. Recognize that the processes of research and design can be their own forms of action.
3. *Work openly and inclusively.* While it can be challenging, it is important to open the doors to the studio and bring more voices into the design process as early as possible. Proprietary knowledge, expertise, and uncritical self-promotion have no place when people's lives hang in the balance.
4. *Bring friends from other disciplines.* Through transdisciplinary practice, designers and anthropologists can find a balance between action and reflexivity.

These insights conclude this paper, but not the debates over how and when to use our professional expertise to enact positive social change. Communities like the Ethnographic Praxis in Industry Conference provide an opportunity to transform the passive ethos of 'do no harm' into an active conversation about how to 'do good.' My time studying FAIR Money and Plot London has left me cautiously optimistic about the future of social impact design and design for financial inclusion. I share this perspective with other scholars and

practitioners who believe that design approaches hold the potential to drive poverty alleviation initiatives in more human-centered and locally relevant directions, but only if we are reflexive in our practice (Ilahiane and Sherry 2012; Johnson 2011; Maurer 2012; Schwittay 2014).

EPILOGUE

Embracing the Thin Places

While the effects of these projects on poverty and inequality in London and Silicon Valley are, at best, challenging to evaluate, I can confidently say that they formed and relied upon strong communities of practice. It is difficult to overestimate the importance of having informal spaces for collaboration, mentorship, and friendship, spaces where barriers are thin between academia and industry, student and experienced professional, designer and anthropologist. They allow for personal, open sharing of knowledge across disciplinary and organizational boundaries that can give birth to new knowledge and transdisciplinary collaborations. These are spaces away from the constraints of the office or university and can take the form of the kitchen table meetings of FAIR money members, or the casual bar conversations and twitter exchanges that inevitably follow a day's worth of listening to conference presentations. Monthly Ethnobreakfasts give ethnographic researchers from the San Francisco Bay Area a chance to gather for open, breakfast-food-adjacent conversations on the social impacts of autonomous vehicles and ethical uses of open data. These are the spaces in which I met mentors and co-conspirators who helped smuggle me from the world of industrial design into anthropology and ethnographic praxis. These are the people who encouraged me to reflect on the ethical implications of my involvement in social impact design and activism and the people who helped me to write this piece. Without the online Ethnography Hangout Slack channel, I would not have had the conversations with Katie Shelly about Plot London's project that led to this paper. In the international community of practice that is EPIC, I have a chance to share my findings and learn from the experiences of others.

It is imperative that we continue to create and cultivate informal spaces to frankly, critically discuss our hopes, fears, successes, and—more importantly—our failures at addressing complex social issues like poverty and inequality. It is my hope that these thin places can grow to accommodate the voices of marginalized groups and erode class barriers. Communities of practice are the key to keeping alive discussions and debates around power, politics, and what it means for designers and anthropologists to 'do good.'

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NOTES

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of this paper, and for making the excellent podcast that made this all possible. I am sincerely grateful to everyone who provided feedback on this paper, especially my panel chairs.

1. Names of individuals are used when they have publicly identified themselves elsewhere as part of these projects (e.g. in the At Your Service podcast). I have made an effort to anonymize comments made by FAIR Money and Plot team members during private meetings or interviews with me. Organization names are used with approval of members.

2. FAIR and Plot are grassroots in the sense that both were initiated as self-funded and self-directed, but only to the extent that groups of professionals initiating a project on behalf of people living in poverty can be called 'grassroots.'

3. FAIR's report *Good With Money: Getting By in Silicon Valley* contains a detailed description of the research methodology. The Institute for Money, Technology and Financial Inclusion's Consumer Finance Research Methods Toolkit (Taylor and Lynch 2016) references FAIR Money's work alongside a variety of approaches to studying how people think about money.

4. The many traps of poverty portrayal are neatly summed up in On the Media's excellent series *Busted: America's Poverty Myths* (2016).

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Case Studies 1 – Perspectives on Organizational Culture

“Delivering the Secret Sauce”: Culture and Identity in a Corporate Merger

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This case study explores work around a merger designed to bring together two firms of different scale, history, and identity in the hospitality industry -- a large global conglomerate purchasing a small American boutique brand – while keeping the boutique company’s customer- and design-centric culture. It looks at mergers as salient situations for surfacing issues around organizational culture, as companies often come together across multiple differences and brings culture to the surface. CFAR, a management consulting firm, was brought in to understand the cultural differences and challenges the merger created, and help build bridges between the two companies to sustain the boutique’s culture in the service of business performance and growth.

INTRODUCTION: WORKING WITH CULTURE AS A STRATEGIC ASSET

From the moment I arrived for our first full-day meeting at Boutique Hospitality, I knew I was overdressed. As much as I tried to emulate the designer jeans and stylish shirts, casually untucked, worn by staff in this Northwest Coast-based company, I knew I was a bit too old and stodgy to even give this look the necessary effort, let alone pull it off. Conversely, when I had visited their parent company, International Conglomerate the previous week, I showed up a bit underdressed—though even in my best suit I would struggle to keep up with the bespoke suits donned by these global executives. Culture was front and center in the merger of these two companies; in fact, culture was, in large part, the rationale for it, as the conglomerate purchased the boutique brand for mostly intangible assets. Our work, described here, focused on helping the two companies navigate the cultural dimensions of this merger, while keeping intact some of these key intangible assets. Given all this attention to culture, an ethnographic stance for working on this project—mediating between two very distinct corporate cultures—might have required if not a new wardrobe at least the conceit of looking equally uncomfortable in both of these cultural worlds.

Tensions bubbled up the night before the meeting as people arrived at the hotel. Organizers scheduled a common dinner for team members from both companies, but only a minority of people attended, with many opting to go out with friends and colleagues from their own company. One cross-company group decided to go out dancing together, but after action reports were not encouraging. News came back that Boutique’s members felt that their corporate counterparts were trying too hard by “dressing down” to be as cool, coming off to them as inauthentic. Conglomerate experienced their colleagues as snooty and standoffish, the cool kids who looked down on others. Clearly, cultural challenges spanned several domains here.

This paper explores work around a merger designed to bring together two firms of different scale, history, and identity in the hospitality industry. In this case, a large global company with multiple brands (Conglomerate) purchased a small American entrepreneurial

firm (Boutique) with the explicit goal of keeping what the acquiring company's leadership saw as the boutique company's customer- and design-centric culture—its “secret sauce”—a term that the two companies often used, though with differing degrees of irony. Mergers are salient situations for surfacing issues around organizational culture, as companies often come together across multiple differences: brand, nationality, work identities, language, scale, leadership, collaborative styles, etc. And difference brings culture to the surface. The literature on mergers (Appelbaum, Shapiro and Roberts 2013, Doherty, Engert, and West 2016) argues that, in most cases, integrations fail to achieve both their business and organization goals, and rarely preserve the smaller organization's culture, even when they aspire to do just that. The larger entity typically swallows up the smaller organization's identity, with other predictable effects—erosion in morale, reorganizations, talent leaving from the acquired company, and knowledge legacies quickly eroding. In this case, Conglomerate purchased Boutique with the express desire to capture, maintain, and spread elements of Boutique's ways of working, and to preserve the boutique company's customer-friendly style and its informal, West Coast culture. The goal of the merger was to preserve all of this while achieving enough operational integration to both make the merger a business success and to “scale” Boutique globally.

At a higher level, this paper addresses the growing relevance and attention to “culture” in the work of organizations and in our clients' experience. It seems that this is increasingly culture's moment, as a review of the business literature marks an amplified awareness of the importance of culture in the workplace. For CFAR, culture shows up in the settings where we work as both a barrier to and an enabler of progress, collaboration, and performance. Organizations increasingly report on their cultural challenges, wanting to “work on their culture,” struggling with a toxic culture or unit, or getting stuck around a strategic change in which culture presents a critical barrier. At the same time, culture exists as a kind of black box for organizations who recognize they have cultural challenges yet have difficulty defining the source of these challenges or how to make them concrete and accessible to a meaningful intervention. Watkins (2013) writes about culture's elusiveness: “While there is universal agreement that (1) it exists, and (2) that it plays a crucial role in shaping behavior in organizations, there is little consensus on what organizational culture actually is, never mind how it influences behavior and whether it is something leaders can change.” Our experience supports this elusiveness. Organizations know culture is important, but have varying definitions of what it is and how to work on it. So, the culture concept, from the perspective of an organizational anthropologist, raises some interesting questions: How does an awareness of culture on the part of our clients change our relevant definitions and focus of this concept and its utility? How can organizational anthropologists and ethnographers use or adapt their tools to be effective in these situations and to align with the understandings of culture on the part of our clients and collaborators? And how can consultants best bring culture to the surface as a tangible set of assets to work with in the service of our clients, without reifying the term?

PRESENTING SITUATION

A few months after the merger between the two companies was announced, the “post-merger integration” work transitioned from the direction of a cross-company Steering Committee (“SteerCo”), which had reached some agreements about the timing and final

structure for the integration—the “end state”—to a set of cross-company functional workstreams, which developed fairly detailed implementation plans. The leadership’s aspirations to maintain a level of autonomy for Boutique created some real challenges for the merger work, where a simple unification of companies would have been easier to achieve. Clearly these companies’ organizational histories shaped this culture divide: Conglomerate is an older, British-based company with an international work force. Boutique was born of an entrepreneurial, start-up culture, and its employees appreciate its Northwest Coast, edgy style. The employees of these companies are attracted to these legacies and the different pathways of identity and career development they offer. The complex merger apparatus labored under a lot of pressure and scrutiny, much of which fell on the shoulders of the two companies’ HR departments.

A scene from one of the workstream meetings illustrates how culture surfaced in this work. Middle managers from the two companies came together from cities across the US for two days of meetings focused on the back-end systems that the smaller firm would adopt to take advantage of the larger firm’s information services. While fairly technical, the adoption of one system by another company involves a lot of cultural—or what Eric Trist would call “socio-technical”—system focus, negotiation, and collaboration (Trist & Bamforth 1951). How willing would the boutique firm’s managers be to give up what they saw as the flexibility and customization wired into their current work systems? How would they collaborate with the conglomerate’s larger IT staff to get help when they need it and still interact with their customers in the way they wanted to? And who would get to make which decisions about how much to tailor the system for the boutique firm?

The workstream members grappled with these kinds of processes and questions for several months. While they started with a spirit of openness and collaboration, the integration work dragged on over many months, taxing team members from both companies to work out complicated organizational and technical details, and exacerbating tensions over different ways of working across the companies. Some clear differences started to surface around some key behaviors and issues.

Although the merger was well resourced with both integration support and staff, the process got bogged down by operational and cultural challenges. Middle managers tasked with driving the integration grew frustrated and resentful of their counterparts, lacking clarity around the “end state” for the merger. The integrated leadership team also grew irritated with slow progress, entering a state some termed “integration fatigue.” Company-wide formal communication was perceived as late in coming and vague on the details. Frankly, the merger was struggling on a number of different dimensions, and leadership was aware enough about it to feel that they had to fix the problem. However, while they wanted to solve this integration problem, they also did not want to get further pulled away from running their current businesses.

CONTRACTING AND LAUNCHING THE WORK

CFAR was referred in to their request for proposal by another consultant colleague as a “culture agency.” We developed a proposal for the merged company’s Post-Merger Integration Team, were pleased to respond, and were awarded the work after a few revisions and conversations.

As a small boutique management consulting firm with both its own distinctive culture and a proficiency for joining in the world of our clients by taking an ethnographic stance, CFAR should be well positioned to put ethnography to work in our consulting engagements. CFAR is a private firm that works on challenges in strategy, culture, and change across industries, with much of our work in mission-driven sectors like healthcare, higher education, research organizations, and family businesses. CFAR was born inside the Wharton School of Business at the University of Pennsylvania, and is itself a merger of multiple organizations and identities—organizational systems theory with management behavior, practitioners with academics, MBAs with social scientists. CFAR has a strong representation of social scientists among our senior consultants, including a folklorist, two anthropologists, and a behavioral economist. The firm has developed an approach to change that puts culture at the center. I myself have traversed multiple worlds in my career—university professor and academic ethnographer, documentary filmmaker, organizational consultant, and now partner in this firm where this diverse set of skills is helpful.

Although we have three trained ethnographers among our ranks, it has taken us a while to feature our culture work as a key part of our offerings. Perhaps our deep roots in psychodynamic approaches to organizational work or our own business school legacy held us back from highlighting our ethnographic work, or a feeling that the market wasn't ready. Our work on change is founded on an ethnographic sensibility and understanding of organizational cultures and how to intervene in them. But it is only in the last few years that we have developed a method to our culture work—and are now starting to more explicitly feature it as we talk to clients.

CFAR entered the picture as the merging companies sought external support to address the cultural barriers hindering successful integration. As noted, our firm was referred in as a “culture agency” (a term we had not used in the past, though were intrigued to be identified as such) and as a “boutique” consulting firm that could understand the smaller partner’s needs, assets, and interests better than a large consulting partner. We submitted a proposal to help understand where cultural differences were getting in the way of integration and collaboration, and to develop recommendations for how to negotiate those differences and help accelerate the merger work.

METHODS

The work in this initial phase focused on both diagnosing and understanding where culture was getting in the way of integration progress and where bridges need to build, and in making these cultural challenges both visible to company leadership and concrete enough to work on at the manager level. We did this through collecting a mix of qualitative and quantitative data – what we often think of as “the hard and the soft.” The culture work focused on functional workstreams set up as part of the post-merger integration work. Our diagnostic phase of the work used a few methods:

- **Open-ended interviews with stakeholders focused on culture and collaboration.** These proved to be quite revealing of both different company attitudes across the merger and of different theories about whether and how culture might be getting in the way of the successful integration.

- **Ethnographic observations in client settings.** These were done both explicitly and tacitly, as it would have been hard to justify too much time spent in mere observational mode. We were able to sit in on a few meetings to learn more about how the workstreams were progressing; that and being around for face to face interviews allowed us some observational insight.
- **A survey of roughly 100 employees at multiple levels of the organization involved in the integration work.** This proprietary tool, called the “Know, Feel, Do”™ survey, was developed by colleagues of ours at MG Strategy. It uses both quantitative measures and open-ended responses to gauge several factors: the level of knowledge employees had about the integration, how and what employees felt about the merger, and how well respondents were assuming specific behaviors they felt were needed to constructively lead the organizations through the merger.

CULTURAL OBSERVATIONS – WHAT WAS GETTING IN THE WAY

The diagnostic phase generated a series of observations of where culture was hindering integration progress, as well as issues that needed to be addressed to keep the merger on track. Some of these issues included:

- **Use of collaboration tools, like meeting agendas and slide decks.** Boutique tended not to use these tools, while Conglomerate drove their work through them. Conglomerate felt that their Boutique counterparts were showing up unprepared for meetings, and that meetings were therefore unstructured and unproductive. Boutique, stretched too thin given their smaller staff, felt put upon by the level of preparation that Conglomerate required. In the context of collaboration at the workstream level, these differences fomented resentment, unproductive discussions, and slowed-down work flow. Aspersions were cast about varying levels of professionalism and bureaucracy, differences that eroded trust and took away from the pleasures of working together.
- **Decision-making.** Boutique’s flat organization structure enables rapid decisions often made informally, in the hallways or by phone; Conglomerate has more layers to weigh in for approvals and more people to check with, thus slowing down decision-making. When the organizations had to obtain approvals from superiors for agreements and proposed plans, these differences in decision-making caused frustration based on mismatched expectations. The larger question of who was ultimately in charge loomed over a lot of this work. Even though there had been some agreement at the top levels of the company that Boutique would be able to maintain much of its autonomy, for many at Boutique, it felt like Conglomerate managers were still calling the shots and driving the work. At the same time, Conglomerate managers resented the mandate allowing Boutique to keep most of its ways of working—its “secret sauce”—in large part because, in previous mergers, Conglomerate had required its new subsidiaries to fit into Conglomerate’s systems and reporting structures.
- **Lack of clarity around titles and roles.** At Conglomerate, functions were divided between staff with ladder titles and clear reporting relationships. Boutique is a

much flatter organization, where one person might have multiple functions but a loftier-sounding title than their Conglomerate counterpart. Status and workload got confounded through these differences, and Conglomerate felt that their Boutique counterparts had less experience but more comparative status than deserved.

- **Different organizational structures.** Conglomerate is a publicly-owned, highly collaborative company that operates in a global functional matrix. Boutique is a small regional company with a flat, if siloed, structure, shifting from a private to a public company. Conglomerate works through multi-levelled decision-making with layers of accountability; as such, its decisions are consensus-driven. Boutique values being nimble, informal, and flexible, but also a bit hierarchical. This last point was a bit counterintuitive, as one might expect the laidback, informal nature of Boutique to create a less hierarchical decision-making culture when, in fact, Boutique's entrepreneurial roots rested in strong leadership and centralized decision-making. Conglomerate's corporate culture "required" many people across the company to provide input and feel "they can buy in to" large decisions that needed to get made. The lack of clarity about how functional divisions will operate in this merged future burdened the process:

Clarity on what that means for each function and roadmap to an end state with clear timing; why are we all better together? How will Boutique help make Conglomerate brands stronger (vs. Conglomerate helping Boutique). (Survey response)

- **Planning versus spontaneity.** Conglomerate tends towards being scripted, planned, and predictable. Boutique is more spontaneous, and values working through intuition and informality. Feelings of loss grew on the part of Boutique staff as they realized that they needed to trade off autonomy in this new system. The boundaries around autonomy were one of the most salient issues to navigate in this merger. One open-ended comment from the survey made this clear:

There remain some behaviors from Conglomerate staff that have eroded my trust and respect for them. Even recently, my Conglomerate peers have been told that they are getting way too involved in my business and that their behavior towards me on a conference call was unacceptable.

- **Unequal stakes in the future.** Boutique's managers were unclear of their future prospects in this dynamic situation while Conglomerate staff saw multiple opportunities for personal growth.
- **Privileging one company's culture?** Ultimately, there was a sense that the attention paid to culture needed clarification, and a bit of culture envy at play.

I'd like to hear more about how culture works in practice for Boutique. We hear about the secret sauce and I think there is some envy or unfavorable comparison from Conglomerate folks about the fun of the Boutique brand. However - I also don't think we're too far apart - it might be the way we go about it. I'd love to hear examples of how Boutique culture works in practice - how we hire, how we manage people, how we sign deals, how we deal with owners, how we work as a company. The differences will help us find ways to align and work better together and find commonalities in the longer term.

This data, when presented to the leadership group, served as a real wake-up call. Although in our view the qualitative data was particularly rich, the quantitative data really seized leadership’s attention. This was surprising from a methodology perspective. As an ethnographer trained to both embrace the power of textured fieldwork data and to question the kind of high level, quantitative survey data our work often gets compared to, I felt a little skeptical about the numbers, and also a little wounded to see that they carried such power for the company leadership. Yet there it was—confidence intervals, baselines, trends, cross company comparisons—all had the power of concreteness in their eyes, and ended up getting their attention, though the qualitative data, particularly the open-ended responses to the surveys, were also salient in their eyes. That is, they took both quantitative and qualitative data seriously, but fixated more on the numbers as an index for where they were struggling and where they could potentially measure change.

For instance, the quantitative data points most salient in the study included the following results from the survey comparing Conglomerate versus Boutique scores:

Survey Item	Gap between Conglomerate and Boutique
I feel invested in a future here for myself	1.06 out of 5
I feel equipped (tools, information, etc.) to reach the desired end state	1.03 out of 5
I can leverage Conglomerate (infrastructure, tools, processes) to fuel Boutique's growth	.96 out of 5
I can use a common language between Conglomerate / Boutique	.99 out of 5
I am proud to be part of a larger Conglomerate / Boutique team that wins together	.91 out of 5

These differences were stark indicators of the integration gaps between the two companies.

Taken together, the combined quantitative and qualitative analytical report signaled clearly that the integration had more problems than the leadership had thought or had been willing to admit. Executive leaders thought that middle managers were bearing up with the integration process, but now had to face the fact that these obstacles were having a significant impact on business. After a few rounds of digesting this data with various groups, it was clear that an intervention was needed. We began working with the integration team to plan and develop a series of workshops on culture, ways of working, and leading change – the topic areas that they felt were most needed to get the groups aligned. These would be rolled out to the workgroups through a series of meetings that kept getting reformulated and rethought.

AND THEN THE INTEGRATION PROCESS STOPPED

After getting very close to merging the two organizations, executive leadership realized that the owners of the franchise facilities were not ready to go forward with the new management contracts, delaying critical agreements that would be the foundation for the integration. And so, after months of negotiation, they put the integration work—and our consulting project—on hold for the better part of a year. This was dispiriting to the organization and to the people involved in the workstreams, but leadership felt they had no choice. The

workstreams were put on hiatus in the late Fall of 2016. After spending six months on this project last year, during which time we were able to clarify not only the ways in which cultural differences were holding back the merger, but also the practices needed to enable more effective collaboration, without sacrificing the distinctive identities of either company, our work was on hold.

RECASTING THE PROJECT UNDER NEW CONDITIONS

Then early this year, the workstreams were re-engaged to move forward even if the fuller integration would not go forward. And in late spring, leadership decided to restart the culture interventions, and they asked CFAR to reengage with them. We have now co-developed a series of interventions in the form of workshops on culture and ways of working that we are now set to either deliver with the HR team or to work more in the background to support them delivering. These workshops, tailored to specific workstreams within the integration process, are designed to meet the teams where they are in their collaboration across companies, while also developing processes for having more productive conversations and tools to help them get unstuck in collaborating. At the same time, the workshops, rather than getting in the way of helping people get their work done, needed to be embedded in that work—a challenge in itself. The workshops will have some mix of three areas of focus tied to specific desired outcomes:

- **Ways of working.** Here the focus is on organization design -- the “end state” operating model, organizational structures, and decisions rights. Our HR colleagues see this as related to but distinct from the work on culture—in our view these are more tightly integrated. HR is taking the lead in developing these interventions, with our support, with the goal of clarifying for staff from both companies the operating model they are working towards and helping them negotiate protocols for decision-making going forward.
- **Work on culture.** The work here focuses on developing agreements about how the two entities will collaborate, how they each will “show up” in relation to each other, and norms for working together that are respectful of differences without collapsing them. We will use a negotiation-based process to frame this work, with each company articulating cultural requests of the other – what they need the other group to do to better enable their collaboration -- then negotiating together how these requests can best be addressed and satisfied.
- **Leading change.** Conglomerate is more in the lead here, with CFAR’s support, as they have already articulated frameworks for how managers should act as leaders in shaping change, how they should communicate, and the behaviors that will support this change.
- **Stakeholder management.** In addition to the focus of the work to be delivered in the workshops themselves, we are helping both companies think about a fairly extensive stakeholder management plan. Given the bureaucratic nature of Conglomerate, and the sensitivity of change on the part of Boutique, much attention will need to be paid to getting support and buy-in from the right people in the right sequence. Many individuals will need to be involved at some level, with some care given to addressing their input.

INSIGHTS

The work has generated the following set of insights thus far:

CFAR learned a lot through this work on culture; about using relevant data, how to do diagnostic work in these merger settings, the framing of cultural issues to make them salient and concrete enough to get leadership's attention, and productive ways to work on culture in the service of organizational improvement. CFAR's working definition of culture—"an organization's agreements, behaviors, and systems for getting work done" (CFAR 2017)—provided a constructive bridge between an academic definition of organizational culture and one that is more practical and accessible for the members of the companies with whom we work.

- **It is critical to understand what, in the client's world, counts as "culture," and how to make it concrete enough to work on.** Organizations already have their own definitions – either explicit or implicit -- of the terrain in which we are working and those definitions may differ from ours. We may be able to influence those definitions, but probably only so much, so may be best joining with them and doing our best to make them accessible to real work.
- **We need to pay attention to what counts as data for the client's culture.** In this case, both quantitative and qualitative data mattered, though with the leadership group the quantitative had a concreteness that really got their attention. Leadership was particularly interested in metrics that they could use as a baseline both to compare themselves against (hard to do here) and to try to make progress against.
- **To get traction for working on culture, it is critical to tie cultural issues to business performance.** In a large global company like Conglomerate, a focus on culture itself is not motivating enough to get the attention and resources necessary to work on the problem. Only when tied to speed of performance, retention of managers, and, ultimately, impact on the customer, will the culture issue get its deserved focus.

Overall, our challenge is to make a difference by making culture visible and concrete enough to do something about, tying culture to business performance and peoples' engagement at work, and focusing on strengths and opportunities. As consultants, bridging academic and organizational identities ourselves can make us more effective in our work in this cultural moment—**our own version of a "secret sauce."**

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Case Studies 1 – Perspectives on Organizational Culture

No One Reason for It: Workforce Diversity, Cultural Complexity, and Staff Retention at BMW MINI

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This case study is based on an ethnographic investigation conducted in 2003 at the BMW Plant Oxford automobile factory focusing on issues of staff retention. The study found that the workforce, as well as being diverse in conventional terms, was also divided in less immediately identifiable ways, and different groups within the workplace had quite different expectations from the experience of working there, and a programme to overcome these problems was developed.

INTRODUCTION

Although the various groups who work in an organization will all have different perceptions of its role and different experiences of working there, the impact of these is often not recognized in policy and practice. An important issue is that it is often hard, if not impossible, to articulate these differences. The case of one Anglo-German automobile manufacturing company and how it addressed its issues over staff retention and the lack of recruitment of women using ethnographic data shows that through the use of ethnographic methods, organizations can expose these tacit differences and explore ways of addressing them.

This case study is based on an ethnographic research project conducted in 2003 (and followed up between 2003 and 2006) at the BMW Plant Oxford automobile factory at Cowley, Oxfordshire, also known as BMW MINI and Cowley Works. The project was instigated at the request of the human resource management team of BMW Plant Oxford, who required an investigation of issues of retention among the staff of the Final Assembly area, as well as issues regarding the recruitment of women in general (which have been the subject of earlier papers, for instance Moore 2007, 2015). Staff retention had been determined to be poor, but quantitative surveys of departing staff had given inconclusive results. Ethnographic evidence indicated that the main issues affecting staff retention were the nature of the training process, a perceived lack of respect on the part of management, and difficulties in maintaining communication on the line, as well as a lack of understanding by the management of the shop-floor culture.

Furthermore, the problem underlying all of these was that the workforce, as well as being diverse in conventional gender-and-ethnic terms, was also divided in a number of other, less immediately identifiable ways, meaning that different groups within the workplace had quite different expectations from their employer. However, the way in which the workforce was managed did not recognize these differences, but assumed a single “typical” worker who did not necessarily fit the paradigm. The ethnographic method, therefore, provided insights into aspects of day-to-day life at the factory which, although they might

have seemed trivial, ultimately affected the firm's productivity and practices. It also showed how even small differences in managers' and workers' experiences of the workplace have a disproportionate impact on employees' experiences.

This paper will, first, explore the theoretical and historical background to the case study and discuss the methods used to pursue it. It will then consider the nature of the workforce in general, before focusing on the problems of staff retention, exploring the reasons behind these issues. The programme which was developed to address these issues will be described, and its successes considered, before the wider implications for other businesses and organisations will be explored.

DIVERSITY, MULTIPLE PERSPECTIVES AND ETHNOGRAPHY IN INDUSTRIAL SETTINGS

Ethnographic studies in factory settings have a long history of being used as a means of acquiring knowledge about day-to-day work processes which affect organisations on higher levels (Baba 1986). Mayo's Hawthorne studies of the 1920s, often cited as the earliest example of ethnography of organizations, provided insight into worker practices aimed at controlling their working lives and resisting managerial control (Schwartzman, 1993, p. 5-18). Other studies similarly focused on the factory as a site of contested control and resistance, whereby workers gain empowerment through challenging managerial concepts, and/or negotiate racial and gender discourses among themselves (e.g. Kamata 1983, Westwood 1984, Graham 1995, Delbridge 1998, Briody, Trotter and Meerwarth 2010). Recent studies have taken an increasingly complex approach to the day-to-day life of factories. Sharpe's ethnographic study of control and resistance in a transnational manufacturing company, for instance, takes a micropolitical approach, considering how individual social relationships affect the presence, nature and type of conflict engaged in by workers, situated in a very particular social and industrial context (2006). Elger and Smith's mixed-method study (2005) considers manager-worker relations, and expatriate-local relations, as complex mixtures of consent, acquiescence and dissent. Ethnography is therefore a tried-and-true method of studying aspects of everyday life in factory settings, and one well suited to unraveling the complexity of their organizational cultures.

One aspect of everyday life in factories is diversity. A number of studies of factory life have focused, wholly or in part, on diversity issues. Westwood's ethnography of female factory workers discusses diversity largely in the context of the British working class adjusting to its postwar multiculturalism and reinterpreting discourses of gender equality (1984). Shaw's study of the Pakistani community in Oxford discusses, in part, their struggles to gain acceptance in local factories (1988). Moore's investigation of 'native categories' in a British factory explores tensions over the definition of ethnicity and gender roles (2012). Smith, Daskalaki, Elger and Brown's mixed-method study of Japanese-owned factories in the UK is of particular relevance here, as it directly links worker traits with employee retention (2004, p. 376). All of these would suggest that the demographic traits of factory workers might affect their willingness to remain with their employer.

However, most, if not all, of the above follow the conventional pattern within diversity management studies, of focusing on ethnic diversity (particularly that relating to 'visible minorities') and/or gender (Jonson, Maznevski and Schneider 2011, p. 38-39), and to a lesser extent religion (again, largely in the context of ethnic diversity, with Westwood

[1984] and Shaw [1988] discussing Islam in the context of it being the majority religion in the Anglo-Pakistani community). Moreover, the conventional approach to diversity is to treat it either as consisting of wrongs to be righted (Jonson et al. 2011, p. 39; Thomas 1990), and/or as an advantage for firms to exploit (Zhou and Shi 2011). Smith et al.'s study indicates age and marital status as well as gender as being factors in employee retention, but also that none of these traits are clearly and definitely linked to it, suggesting that in such cases, diversity requires a more complex treatment (2004). Furthermore, there may be other forms of difference than those conventionally discussed in the literature; indeed, there may be differences which lack formal, explicit definition, being only tacitly acknowledged within the workforce. Some of these differences between groups of workers may even be firm-specific, or factory-specific. Finally, these differences may have an impact on factory work that goes unnoticed, due to their tacit nature.

The case of retention in the Final Assembly Area of BMW Plant Oxford thus provides scope for exploring the proposition above, that wider issues within the firm can be affected not just by visible forms of diversity with known connections to outside social divisions, such as gender, but also by invisible or less identifiable forms of diversity, such as student status, organisational subdivision, or even, simply, choice of lifestyle.

PROJECT AIMS AND METHODOLOGY

The project was undertaken at the instigation of the management of BMW Plant Oxford, who approached the researcher, then a fellow at the Said Business School at the University of Oxford. The managers reported that their survey instruments could not tell them why they were having trouble retaining new shopfloor workers, and why they could not recruit more women. Being aware that ethnographic methods can provide access to knowledge which is difficult for staff members to put into words (as noted by van Maanen 1979b), they were interested in commissioning an ethnographic study with a view to understanding the reasons behind their problems. This paper discusses the material related to the first of the managers' questions.

The data presented in the case study is based partly on participant-observation fieldwork, and partly on interviews with BMW employees. The researcher spent three months on the line in the Final Assembly Area (known in the organisation as TO-4), working as an employee of a temporary labour agency, with the agency's knowledge and permission. Two tours were also taken of the full plant (except TO-3, the Paint Shop, due to the need for protective clothing and equipment) as an outsider, and a later tour was taken of one of BMW's German plants. Relevant in-depth interviews were also conducted at the time with thirteen staff members; most were in managerial and/or coordination functions, although five were Team Coordinators (TCs, roughly equivalent to foremen) and three were Process Area Managers (PAMs, or shopfloor managers) or trainers. Most of the interviewees were associated with the Final Assembly Area, but there were also three from the Paint Shop and one from Body in White (TO-2) as well.

Most interviews were recorded, although in a few cases in which the interviewee was not comfortable with the presence of a tape recorder, shorthand notes were taken instead. In some cases, follow-up interviews were conducted, normally over the telephone, and liaison work was done with the plant's change management team over the findings of the initial study. Statistics on the workforce and its ethnic and gender composition were also obtained

from BMW MINI, and have been used here with permission. The data was then analysed through close reading techniques, and through colour-coding fieldnotes and interview data according to the subjects discussed (see Brannen, Mughan and Moore 2013).

The study is ethnographic in that the lived experiences and perspectives of the researcher and her informants were the main drivers behind the data gathering and analysis. Reflexive participant-observation forms the core of the study, capturing the experience of being a young woman working on an assembly line, while the interests and experiences of interviewees guided the content of the interviews, allowing multiple perspectives on the factory and its workforce to emerge. Oral histories and archival research were also analysed with a view to obtaining not just the historical and social context for these experiences, but also the experiences of factory workers and managers of previous generations, as a form of second-hand ethnography. The experiential and reflexive aspects of ethnography allowed for the acquisition and analysis of qualitative, tacit data on the factory's issues with gender, ethnicity and age distinctions, and the analysis of these to develop useful ways to address any problems.

BACKGROUND

History

BMW Plant Oxford stands on the site of the Morris Cowley Works, which was acquired in 1912 by William Morris, the owner of a motor-hire business in Oxford who had diversified into automobile design and construction, to use as a workshop and, later, a fully-fledged automobile plant (Newbigging, Shatford and Williams 1998, p. 12). The plant remained under the ownership of the Morris corporation (producers of the original Mini, which began production at Cowley and Longbridge in 1959) until late 1952, when it merged with Austin to form the British Motor Group (Bardsley and Laing 1999, p. 122). During this time it rapidly became part of the local culture, with the city becoming divided along two social axes: the University and the automobile plant (albeit with a certain amount of crossover between them; Morris, later Lord Nuffield, founded Nuffield College at the university, and the factory has also benefited from the large pool of student labour). The plant rapidly developed its own sports teams, volunteer fire brigades, bands, amateur dramatic societies and social club; children's events and open days were also organised, and are remembered with fondness by many local people (Beardsley and Laing 1999, p. 86, 95-104; Newbigging et al. 1998).

In 1968 Morris Motors became part of the automobile manufacturing group British Leyland, which was nationalised in 1975 as the crisis of the British motor industry deepened (Scarborough and Terry 1996, p. 4-5). In 1979, the still-struggling British Leyland entered into a joint venture with Honda (Scarborough and Terry 1996, p. 5; Bardsley and Laing 1999, p. 146). In 1988, British Leyland was privatised under the name Austin Rover through its sale to British Aerospace (Bardsley and Laing 1999, p. 146; Scarborough and Terry 1996, p. 5; Greenhalgh and Kilminster 1993, p. 44).

In 1994, British Aerospace sold its 80% shareholding of Austin Rover to BMW (Scarborough and Terry 1996, p.5). The Rover acquisition, however, proved problematic (see *Financial Times* 1998), and in 1999 BMW sold off most of its Rover assets, retaining, however, the Mini. The decision was taken initially to establish Mini production at

Longbridge, but production was later shifted to Oxford for logistical reasons. The change has also proved a good move in publicity terms, as the association with Oxford bolsters the 'swinging England' image put forward for the Mini in associated international publicity campaigns.

The long-term presence of the plant on the Cowley site has given it an intimate association with Oxford history and culture; some of the Oxford-born associates working at the plant at the time of the study spoke of having parental and even grandparental connections with the factory. A 1930s poster reproduced in Bardsley and Laing urges tourists in Oxford to visit both the colleges and the Morris Works (1999, p. 84). Morris' initial operation capitalized on pre-existing social relations in Oxford, as he actively recruited local farm workers and tradespeople to work in the plant (Ward, Stuart and Swingedouw 1993, p. 72). Schofield and Noble note that the advent of the automotive plant created the now-familiar social division in Oxford between the university-focused northern/inner suburban area, and the automotive-plant-focused eastern area (1993, p. 258). Life in East Oxford, and particularly the Cowley area, has revolved around the automotive plant for most of the century, regardless of its changes in ownership (264): for many, the actual ownership and type of production of the plant appear not to be an issue, so long as the plant itself remains open and active (see Moore 2007).

The fate of Cowley Works/BMW Plant Oxford is consequently linked, in the minds of many Oxonians, with feelings of local pride and patriotism. At the time of the study, both of these had become somewhat embattled: whereas in 1960, Britain accounted for 11 per cent of the automobile production of the 7 major automobile-producing countries, (Greenhalgh and Kilminster 1993, p. 34), by the late 1980s Rover was the only British-owned car manufacturer left, and Cowley was one of its three major plants, doing 2/5ths of Rover's production at the time of its privatization (36). This has caused the plant to be, for many, a symbol of Britain's decline in the post-war era; the decision taken by British Aerospace in 1991 to demolish the North and South Works buildings met with considerable local resistance (Ward 1993, p. 7; McCarthy et al. 1990). The local population are thus slightly sensitive about the plant's fluctuating fortunes, and can become fiercely protective of it.

The BMW Oxford operation of the early 2000s had inherited a long-standing tradition of association with the local community, meaning that the workforce would be large and loyal, but also inclined to suspicion of the 'new employers.' They also tended to expect a two-way relationship between employers and employees, in which the employers are expected to provide social welfare and job security as well as employment. The plant thus comes with a pre-existing psychological contract (see Cullinane and Dundon 2006), the breaking, or perceived breaking, of which could affect workers' willingness to remain with the plant.

Contemporary Situation

At the time of the study, the plant was wholly owned by BMW, which made its ownership plain through the prominent BMW logo on the recently-built office buildings near the motorway. The sole product of the plant was the various models of the New Mini (comprising, at the time of the study, the Mini One, the Mini Cooper, the Cooper S and the Mini One Diesel; the cabriolet model, which was not yet in production, was undergoing

trials on the assembly line). The plant comprised nine technology areas, of which the most relevant area to the study is TO-4, the Final Assembly Area.

Officially, the plant's culture under BMW was characterised by an emphasis on quality (in terms of the product and the work done) and flexibility (in terms of the models being built to order in a variety of styles and with a variety of options). Less officially, the culture was characterised by a tension between this ideal and the realities of assembly-line work. Associates expressed frustration or resignation at not being able to work to the highest standards at the speed of the line (which had been almost doubled in the previous year) or pride at being able to, despite everything, keep up with the speed of the line. Furthermore, although the teams may have been flexible in that they were able to adjust to the differences of individual cars, the working practices were more classically Fordist than they were characteristic of 'flexible production': task rotation was minimal, and even if an associate was trained on more than one job they tended to specialise in one particular task (contrast Womack, Jones and Roos. 1990, chapters 3 and 4). As will be discussed below, also, worker organisation and associate/managerial communication were, in practice, more in line with Fordist/Taylorist practices than with Womack et al's 'lean production' model.

Socially, the plant remained a focus for organised activity. Sports teams still existed, as did events at the Romanway social club (during the period of my fieldwork, it hosted a blood drive and two tribute band evenings). While nostalgia for the Rover days (and, even, in some cases, earlier periods of ownership) is present, it was not to an unexpected degree-- in fact, there was less nostalgia than I anticipated, considering the recent and drastic nature of the change (contrast, for instance, Abrams 2007 or Moore 2005). This is probably due to the local attitude to the plant described above; for most people, its ownership and practices are less of an issue than whether or not it is open, functioning and serving the community as well as its shareholders.

BMW also continued the practice of maintaining strong social connections with the locality. As well as donating Minis and associated paraphernalia to charity raffles and providing internship places for students at both the local universities (Oxford and Oxford Brookes), the distinctive BMW plant uniform, consisting of zipped jackets in an orange-green-and-black geometrical pattern, was a familiar sight around town, particularly in East Oxford. Many people drove New Minis, if not other BMW models. While some local people expressed the opinion that the connection was stronger in the Morris days, the sense of local connection with the plant was still powerful.

THE WORKFORCE

The plant's personnel at the time was officially divided into three categories: managers, BMW associates (shopfloor workers with contracts) and temporary associates (shopfloor workers whose contracts are with one of the three temporary labour agencies who supplied the factory). PAMs and TCs tended to occupy a loose position between managers and associates, as, whatever their official status, they were seen as having managerial roles and allegiances. Industrial engineers were also, inaccurately, perceived as being part of the management category. Socially, there is little differentiation between temporary and BMW associates; both wear the same uniform, and it is impossible to tell one from the other without asking. Most associates had joined after BMW's acquisition of the plant; however, a few still remained who joined during earlier periods.

While no data were available on temporary associates, it is possible to gain some impression of the general ethnic and gender composition of TO-4 from the statistics on BMW associates, who form about 55% of the total number of 3300 associates. At the time of fieldwork, the ethnic composition of BMW employees in TO-4 was slightly over two-thirds White, with the remaining third being approximately evenly divided between Black/Afrocaribbean and Asian associates (see Table 1). The gender ratio of the division is slightly over 90% male (see Table 1). My observations suggested, however, that, while the gender mix of temporary associates (who formed 45% of the workforce) was about the same as for BMW employees, there were more black than Asian temporary associates, and in particular more black women than Asian women (I saw several black women on a daily basis, but no Asian women; an Asian student intern told me that he saw one Asian woman in TO-4, but no others). These impressions are, however, largely anecdotal.

For comparison purposes, it is worth noting that the 1987 gender ratios cited by McCarthy et al. (1990, p. 55) give the workplace as being 93% male and 7% female. No ethnic statistics were cited, which is in and of itself significant, suggesting that such information has become more important to both social scientists and managers in the past fifteen years. No information was available on age, disability status, religion, sexual orientation or social class, again suggesting that certain forms of diversity, which undoubtedly affect the day-to-day-life of the factory, are not regarded as significant by the plant's management.

Table 1: Gender and Ethnic Breakdown of TO-4 BMW associates

Ethnic origin	Female	Male	Grand Total
Asian	4	59	63
Black	6	54	60
Black Caribbean		3	3
Black Other		1	1
no information available		8	8
Oriental		4	4
Other	1	21	22
White	52	725	777
White European	2	17	19
White Other		1	1
White UK	5	133	138
Grand Total	70	1026	1096

Source: BMW unpublished internal document, 2003.

In terms of motivations for joining and continuing to work for BMW Plant Oxford, I was able to identify three types of staff, broadly speaking:

Long-term Joiners

This group consists of associates who join the company looking for a permanent job. If they are satisfied with the work, conditions and social atmosphere at BMW Plant Oxford, they will remain with the plant until they retire or are laid off. Although this group theoretically presents the fewest problems with regard to retention, they become frustrated if they do not receive contracted positions after working at the plant for some time, and I was aware of at least one long-term associate, who had been with the plant since the period of Rover ownership, who left the factory because of this.

Short-term Joiners

This group consists of associates who join BMW Plant Oxford with the deliberate intention of leaving after a particular, usually fairly short, period. It largely consists of students from the nearby universities, or young people doing a 'gap year' between secondary school and university, travelers or backpackers pausing to make money to fund their expeditions, or more sedentary people raising money for a particular item or project. Most of the people I encountered in this group tended to be in their late teens through mid-twenties, though one HR manager mentioned that, in the autumn, there was often an influx of local housewives making 'Christmas money' to cover the expense of the holidays.

It is also worth noting that their relationship with the plant may not be as 'short-term' as the name suggests, or as Smith et al.'s study implies (2004, p. 391). Some people in this category would return for multiple periods of work (for instance students who worked during the summer, or the abovementioned housewives), or would change their plans and choose to remain rather than leave after the specified period.

Undecided

This category includes associates who join the company without a clear idea of how long they will be staying, or with the intention of taking the job on a trial basis, and continuing with it 'if it works out.' This is obviously a crucial group from the point of view of retention, as the other two categories have more fixed ideas about the nature and length of their relationship with the company.

However, it should also be noted that there is considerable overlap between the three groups. Some people intending to take only a seasonal job decide to stay on; some looking for a long-term job leave after only a few days. Also, staff may not be aware of-- or willing to admit to-- their intentions with regard to the job they take, or may not be entirely truthful on their exit interviews as to their initial plans.

STAFF RETENTION ISSUES

BMW's Relationship with Associates

Although BMW managers did not seem to be aware of this, there are several points at which negative impressions were given to associates about their role in the plant. This caused associates to feel undervalued and, given the psychological contract with the plant, in which it is expected to support the community as the community supports it in turn, this appeared to be a factor with regard to staff retention.

I arrive for my [temporary labour company] assessment fifteen minutes early. It is a cloudy and cool day. The candidates gather in the reception area until being ordered to stand out on the tarmac to await collection by the [temporary labour company] representative. The representative is late, and the candidates complain about the weather and their treatment. When the representative arrives, the candidates are led on a long trek to the [temporary labour company] offices where we are then told that the lift is not working (we are not told that the lift on the other side of the building is operational). We are ushered into a large, spare room which does not appear to have been redecorated or refurnished in some time, where we are told that the heater does not work. (Ethnographic fieldnotes, 28 March 2003)

As BMW associates generally start out as temporary associates before receiving contracts, this experience is common to virtually all shopfloor workers, however long they plan to stay. Although there are practical reasons for the long walk and the staircases (to test the stamina and flexibility of potential associates), unfortunately, the overall impression given to candidates was that their presence was not valued. They were not given the respect that other visitors to the plant were (and, as they could see into the waiting area, they were quite well aware of this), and the appearance of the testing room suggested that their potential employers were not willing to invest any effort into providing a comfortable, heated testing area. Either way, this could cause problems with staff retention later, as the induction process 'sets the stage' for the new employee's relationship with the company, and gives them a template for future interaction with their managers and coworkers. As a sign on one of the stations in TO-4 noted, 'first impressions count.'

It did seem to be true that, possibly because of this initial encounter, the impression of lack of respect persisted among the associates. Frequently I heard complaints that 'the management don't care about us, they just care that we're working,' or, more specifically, 'they don't respect us.' Longer-term workers also included their frustration at not receiving contracts in this analysis. There was little sense of community, and even TCs and PAMs were occasionally spoken of with a certain amount of suspicion as to whether their allegiances lay more with the associates or the management. As it has often been noted that a sense of community and an emotional 'stake' in the workplace makes workers less inclined to leave (Womack et al. 1990, p. 53-55), this seemed to be one of the causes behind the attrition rate among associates.

Recognising Diversity

The first thing any visitor to TO-4 sees is a diorama depicting four mannequins grouped around a Mini Cooper: three dressed as associates from the three shifts, and one as a visitor. All are white; the three associates are men and the visitor is a woman. On the opposite wall is a pair of charts depicting proper attire for associates and visitors; again, the cartoon figures are both white, the associate is male and the visitor is female. Recently, an article ran in *Mini Moments*, the plant's newsletter, describing the diorama and urging all associates and managers to stop by TO-4 and have a look at it. (Report to BMW Plant Oxford Management, 2003; see also Moore 2012)

As with the 'first impressions' situation above, this display sends an unintended message:

- That BMW does not recognise or value the ethnic diversity of its workforce
- That BMW is unaware of the diversity of its workforce
- That women are only welcome on the line as visitors (see also Moore 2012, 2015)

The message of this diorama was also, unintentionally, reinforced in other ways. Publicity photos, as well as the historical images of the Morris-era Cowley Works on display in the visitor centre and at the entrance to TO-4 also depict only white male workers, in contrast to the actual historical realities (Newbigging et al. 1998; Bardsley and Laing 1999). This is further problematised in that other sources on the history of region provide many images of women workers from the Morris era, and of non-white workers from later periods of the

plant's history, when the workforce began to be more ethnically diverse (see illustrations in Bardsley and Laing 1999 for examples).

Other areas of diversity were also not recognised. While one storage cupboard had been designated an unofficial prayer room for Muslim associates, the managers I interviewed were not aware of this. Although the workforce was very diverse in class terms, given the mix of East Oxford working-class, university students, and newly-patriated individuals from a nearby refugee centre who came from a variety of backgrounds, this was also never officially acknowledged.

The result of the discrepancy between the 'official' version of the BMW workforce presented in the displays, and the reality, is not only to exclude and marginalise non-white and female workers, suggesting that their presence is not recognised or appreciated by managers, but to suggest to visitors and white male workers that the realities of the workplace are not fully appreciated by BMW management. Anthropologists have noted that to use language or images which excludes one group but prioritises others makes the members of the excluded group feel, on a subconscious level, that their presence is 'not right' or 'exceptional' (E. Ardener 1975; S. Ardener 1978).

This is increasingly the case when one considers that increasing efforts were being made outside the factory to recognise the diversity of the Oxford community, with Urdu and Hindi translations of emergency instructions being present on buses and with a number of multiethnic student and community associations becoming visible. The fact that other sources presented a more diverse image of the history of the plant strongly suggests that at least some associates would be aware that the image of the plant presented in the photographs was not entirely accurate. Associates with parental and grandparental connections to the plant would also be aware of the historical situation. Finally, the article praising the diorama in Mini Moments further suggests that the plant's management endorse the image of TO-4 put forward in the diorama, causing further reasons for associates to suspect that managers did not care about the workforce.

Differences in how managers and workers treated diversity, and the lack of recognition of less visible forms of diversity, therefore not only contributed to the distrust between workers and managers, but also meant that the different needs, values and goals of workers were going unrecognised, and thus unaddressed, further contributing to the problems with staff retention.

Training

Simon (not his real name) is a student who joins BMW shortly after the end of term, with the intention of working the four-month holiday period. He is put on a job straight away and given on-the-job training. Although he gets along well with the associate assigned to train him, the associate is not a professional trainer, and finds it difficult to answer Simon's questions and pinpoint the areas where he is having trouble. Complaints from further up the line about the quality of his work further demoralise Simon, and he begins to complain openly at breaks and after work. A week later he gives in his notice. (Report to BMW Plant Oxford Management, 2003)

Whereas in the first year of operation, workers were trained on a 'training island' system, in which they would work in an area off the line for two weeks under the supervision of formal trainers, at the time of the study no such system exists, and new associates were expected to learn by what was called 'sitting by Nellie'. This entails being paired with a more experienced

associate, who shows the new associate how the job is to be done, and the new associate gradually takes over more and more of the work until they are fully trained.

Although Simon's case may be relatively extreme, it was not isolated: the stress of 'getting up to speed' in the initial training period seemed to be the main cause of associates leaving within their first two weeks of work. The lack of formal training was not only a cause of retention problems with new staff, but was also a sore point with more experienced associates, who would either find themselves having to train a new employee without any prior warning or education in how to train new workers, or else having to rectify the mistakes of an inexperienced associate further up the line. Also, as one associate is generally needed to train the new associate, the team is effectively working on diminished strength until the new associate is fully trained. While formal trainers exist, they are not used, and, while the TCs may take an active role in training, it is very much up to the individual TC whether or not to do so.

The system also fails to take into account the fact that different associates learn at different speeds (particularly given the diversity of tasks in TO-4), and also the stress placed on the associate assigned to train the new labour. Both quality and productivity decreased notably when there were new people on the line; this was even brought up in a *kaizen* meeting as the reason behind a drop in productivity during the summer months, when experienced associates are replaced with new 'holiday cover' labour. Simon's case also indicates a possible class element; as a middle-class individual, he may not have been as familiar with the concept of 'sitting by Nellie' as an associate from a working-class background, and the social differences between himself and his trainer (an older, working-class man) might have contributed to his difficulties in communicating. Smith et al. have also noted that well-run training programmes can make employees less inclined to leave the organization (2004, p. 384-5), as they establish a psychological bond with the organization, and also cause the employee to, as it were, make an investment of their own time and effort into the company. The hidden diversity within the organization thus contributed to the problems.

A possible reason for the persistence of this system in TO-4 might be the fact that TO-3, the Paint Shop, had no formal training system, and the managers there generally express satisfaction with this arrangement, stating in interviews that formal training is not really necessary and that it is better to learn by experience. However, compared to TO-4, TO-3 had lower turnover rates, less of a diversity of jobs, and a higher proportion of contract labourers. In sum, the training solutions implemented in one part of the organisation may not necessarily be suitable for others, again showing how a tacit form of firm-specific diversity can affect staff retention.

Contracts

Although many managers whom I interviewed said that the limited provision of contracts was a big issue in staff retention, this did not seem to be the case among most of the associates with whom I spoke in TO-4. Although contracts do not necessarily guarantee job security, they can be an advantage in terms of access to benefits, and in terms of securing mortgages and so forth; they were also, unofficially, regarded as a kind of 'promotion' among staff. For the most part, those who mentioned it as an issue were:

- Long-term employees (1 year or more) without contracts
- Long-term employees with contracts (who sometimes reflected on their good luck contrasted with more recent cohorts)
- Newly-hired employees who intended to become long-term hires.

The reason behind the discrepancy might be, firstly, changes in the nature of the workforce. Some trends which might have affected the situation were:

- increasing number of short-term and undecided associates
- increasing number of associates for whom this job is a second household income
- changes in worker expectations (i.e. resignation to the new situation).

Furthermore, at the time, the culture of the workforce was changing: the temporary labour agency had recently stopped mentioning the possibility of receiving a contract during associate inductions, and word was spreading among the traditional employment groups in East Oxford that contracts are no longer as available as once they were. The composition of the workforce may therefore have been shifting to include more people for whom contracts are less of an issue. What managers believed was an issue among the workers, therefore, was not as significant as they believed, due to the tacit diversity within the workforce, as the three groups identified at the start of the paper all had different feelings on the issue of long-term contracts.

Differences between Management and Associates

Another, related issue was differences between management and associates with regard to their priorities and beliefs about work. Managers (including TCs and PAMs), when asked why they had chosen to work at BMW, cited 'pride in the company and the product' above anything else. Associates, by contrast, cited the high wages and short working week, followed by the working atmosphere ('good wages and good mates', as one put it). For them, working intimately with the product, it was less a source of pride as of humour and good-natured complaint, whereas managers were able to view it with more detachment. Consequently, associates tended to portray managers as out of touch with the realities of factory life, where managers tended to imply that associates were mercenary. This is to overlook the fact that both perspectives are acceptable reasons for doing the job, and giving pride in the product a low priority compared to money and atmosphere are not necessarily barriers to doing a good job or being quality-minded.

This sense of the divide permeated most aspects of life at the plant. For instance, the Mini Moments newsletter seems to be written much more from a managerial than from an associate's perspective, focusing on the Mini's performance in the market, publicity campaigns, and so forth. Newsletter items on the Back to the Track programme, in which managers spent a week working on the shopfloor, emphasised what a challenge management found it to go back to the track rather than how the associates felt about having managers working with them. Consequently, associates tended not to regard the newsletter as having much to do with themselves, apart from occasional items about their friends or team.

Furthermore, the difference arises at least partly from the fact that managers tend to view their jobs as a career, where associates do not, for the most part, consider their work in this way. For instance, one problem in communication seems to be attributable to the fact that if a manager is unhappy with some aspect of their job, they will try and work out a solution, talk to the people concerned and to their superiors, and generally arrange things so that they can stay in the job and be satisfied. However, an associate is more likely to give in their notice instead, because, in their view, it is less effort to find a new job than to find a solution.

One practice which went some way to bridging the gap was the Back to the Track programme. This helped in that it gave managers a limited idea of what life is like on the line, and allowed the associates to come to know managers as individuals rather than a faceless category. However, the period of immersion was not long enough for managers to develop a kind of participant-observation effect (as with the managers in Brannen et al. 2013), and the associates continued to regard the managers as outsiders to their culture. Once again, tacit differences and divisions within the company, in this case between the different professional and working groups at the factory, caused a lack of communication between them.

OUTCOMES OF STUDY

Upon conclusion of the study, the researcher continued her association with BMW MINI. Having obtained a Nuffield Foundation grant to fund follow-up research, the researcher suggested developing a management education programme based on ethnographic techniques; the company, however, instead suggested the researcher work with the company's Change Management team, on a project intended to identify the cultural traits of BMW MINI relative to the rest of the organization (similar to Brannen's later Tesco Project: see Brannen, Mughan and Moore 2013).

Consequently, the researcher spent eighteen months intermittently working with managers from the Human Resources department. This involved attending five meetings in the plant, plus a visit to BMW's plant in Regensburg, Bavaria. Group interviews were conducted with six managers and team leaders in the UK during this period, and individual or pair interviews with five managers in Germany. The researcher also attended meetings of the project and conducted interviews and focus-group meetings with the managers involved, but left before the project was completed.

A report was submitted to the company on the retention project's findings, and also to the chair of the temporary labour agency which served TO-4. The chair subsequently wrote to the researcher expressing her thanks, as she had identified several of these problems herself and wanted to use the report to provide support for her position. While the company did not explicitly inform the researcher of changes made as the result of the report, she was able to identify that the changes she recommended had been made to the training programmes, that flexible working systems were being developed and extended to accommodate the hidden diversity within the workforce, and that the company was engaging in greater community outreach aimed at broadening public knowledge of the factory and what it does. The report was also covered in the media at the time (Anonymous 2004; BBC South Today 2004), due to an initiative on encouraging women to remain in the workforce which was being launched by the British government at the time.

Over the longer term, the 2011 Journal of International Business Studies paper, based on this study, was specifically aimed at broadening understanding of the use of ethnographic techniques for studying large, international organisations as well as smaller ones, while other papers have been aimed at introducing business-studies audiences to anthropological data-gathering and analytical techniques (e.g. Moore 2012). The researcher has also, in recent years, given a number of seminars aimed at educating researchers in international business on the benefits and practice of ethnography in organisations, again with a view to spreading awareness of ethnographic techniques, and is working on developing a more formal researcher training programme for wider implementation.

CONCLUSIONS

Implications

This paper supports the idea that ethnographic methods are generally most suitable for identifying and understanding those aspects of day-to-day life which affect organizations, even without their members consciously realising it (van Maanen, 1979a, b). While Smith et al's study indicates that employee retention is complex and dependent on many contextual factors, most of their conclusions as to which factors are significant are tentative, and they themselves note that a more in-depth, longitudinal approach is required (2004). Furthermore, it also supports the argument put forward in Moore (2011), that multiple perspectives on the organization are needed in order to understand its operation. As opposed to focusing on the needs of workers (e.g. Westwood 1984) or managers (see Schwartzman 1993 for examples), factory studies need to maintain a sense of balance, but also one which recognises the internal divisions of the company, and the actual relationship, in all its complexity, between workers and managers. It is not just ethnography, but the strategic use of multiple perspectives determined through ethnography, which illustrates how organisations are affected by issues which emerge in their day-to-day lives.

Limitations

The conclusions of this study come with the usual advisory that this is a single study of a single organisation. However, when compared and contrasted with other studies of similar organisations, particularly in the manufacturing sector, more general patterns are likely to emerge. The paper should also be taken in connection with other studies of the site from other perspectives (e.g. Moore 2011; Scarbrough and Terry 1996; Newbigging et al. [eds] 1993). Furthermore, it also points to a disconnect between managerial studies of organisations, and the labour relations literature on workers' relationships with their organisations. More studies from multiple perspectives are needed in order to develop the findings of this study.

Conclusion

A study of life on the shopfloor at BMW Plant Oxford undertaken in order to ascertain the origin of its staff retention problems in the early 2000s, not only casts light on the culture and micropolitics of this particular plant, but also suggests that the diversity-management

literature more generally needs to both broaden its focus, and to ensure that diversity is analysed in the specific organisational context in which it is found. Furthermore, the study confirms the utility of ethnography as a means of studying day-to-day phenomena which, despite their seeming triviality, influence organisations' productivity at a higher level. Finally, this study challenges the portrayal of worker-manager relations as inherently tense and conflictual, as the image which emerged from BMW Plant Oxford, while not without tension, was much more nuanced and ambivalent. Comparison with similar studies is recommended to develop these findings.

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NOTES

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Case Studies 1 – Perspectives on Organizational Culture

Bringing Attention to Problem Solving and Meaningfulness at Work: How Ethnography Can Help Answer Difficult Business Questions

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A local division of a multinational manufacturer was experiencing declining engagement and perceptions of leadership (measured in employee satisfaction surveys). In anticipation of coming waves of organizational change, they asked the research team to explore how "nostalgia" may be contributing to these issues and how they might define the unique culture of the division.

Combining ethnographic observations with other qualitative methods, across all levels and departments of the plant, the team uncovered other, more critical issues. Having built a trusting relationship with senior management of the plant, the team used extensive work sessions to help them to understand issues from employee perspectives. This new empathy was conveyed during validation session that spurred initiatives to address a variety of issues that had been contributing to the problems that initially spurred the project.

AN INITIAL REQUEST THAT LEFT RESEARCHERS THIRSTY FOR MORE

The president and the VP of human resources of a global organization faced challenges at the local plant, notably with productivity and gradual but constant declines in engagement and leadership levels over the past 4 years, as measured by bi-annual employee satisfaction surveys. Increasing pressure for performance was identified as one factor, but management also felt that nostalgia was an issue, and brought the focus to specific cultural characteristics of the organization that needed to be better understood and shaped.

The VP of human resources had experience with ethnography while working in Europe and understood its ability to provide a better understanding of identity, culture and their relationship to the product being manufactured. She felt that understanding local history and culture at this plant, located in Quebec, was important, particularly given that this unit was also under scrutiny by the North American regional group to which it belonged regarding its performance. To be considered representative by the various stakeholders, the project would need to be of fairly wide scope, taking into account a broad range of perspectives from constituencies, including 13 departments, 4 shifts, differences in seniority, union representation, and managerial perspectives at various levels.

The research team was excited to receive a request from a potential client already familiar with an ethnographic approach, but nonetheless felt a need to clarify research expectations and fully understand how the results would be used. As O'Connor and Dornfeld (2014) illustrates so well, "when we listen to people talk about the problems they are having with "culture", we know what they really mean: *Our organization is stuck. We're not quite sure how or why. Or what to do about it.*". During this initial project definition period, the

researchers were already taking note of a variety of factors, including interpersonal behavior, communications, spatial organization and the omnipresence of corporate messaging about promoted values. These revealed a tension between the insistence on humanistic values, the constant reference to ambitious goals, the apparent clear separation between plant employees and head office employees sharing the same building, and the lack of investment in a common space, such as a cafeteria. The research team wondered whether the company management was too committed to a top down management style to embrace the adoption of new perspectives. Intellectually, these questions transported the team back to their university years, when they bathed in concepts associated with the dynamics of power, class fractions and symbolic forms of violence as developed by Gramsci, Bourdieu and Foucault. They were witnessing expressions of a structural power but also the expression of its more diffused forms as embodied in discourse.

Another concern was that management aimed at pinpointing specific elements of Quebec culture as responsible for performance challenges. In discussions of the client's current hypotheses, there was a recurrent statement that it generally took more time to implement changes at the Quebec plant compared to everywhere else in the regional group, and that this was due to cultural traits where both consensus and resistance to change were valued. This pointing to culture could potentially translate into a mechanical and reductive vision aiming at a change without a real effort to consider the role of interactions. Agreeing with Ron Leeman's advice (2016) about organizational culture changes, the research team recommended caution when it came to the temptation to use the local context and culture to explain organizational challenges. Citing Leeman, the team explained, 'Culture' is merely a notion. Cultures can't interact... People interact!", and that it was important to start from an exploration of interactions. The members of the client team had varied and polarized views and opinions on the influence of the Quebec culture on productivity, but everyone agreed to start from interactions.

There were many meetings before everyone agreed on a final research design. In between, the research team, exploring the literature on topical issues mentioned by the client, proposed new angles from which to explore the situation on the ground. At the same time, both the client and the research team each had concerns and stakes that needed to be mutually understood as part of building a relationship of confidence and trust.

This process enabled the refining of the main objectives and the definition of enough elements, including the deliverables, for everyone to believe they were understood (Table 1).

Table 1. Respective concerns and stakes

Management Team	Research Team
<ul style="list-style-type: none"> • Obtaining a ROI • Getting results that will allow them to take actions to improve the situation • Facing some redundancy such as being challenged on topics they already discussed internally and felt they can't do much about • Avoiding potential negative effects from the research, such as creating 	<ul style="list-style-type: none"> • Ensuring the results will be valued • Making sure that what employees would share would not be used against them. • Being part of a collaborative effort to ensure that the research will meet the needs of the client. • Feeling that bringing up difficult topics will be accepted.

- expectations that can't be met
- Risking being identified as having made mistakes
- Being able to support the client team in developing a more encompassing understanding of organizational culture and the risks associated with reductionist views

Collectively we built a level of trust that made us all sufficiently comfortable working with so many remaining levels of uncertainty.

By the end of this negotiation, the VP of human resources responsible for commissioning the study had spawned a broader, company-wide initiative aimed at developing a common mission statement that could be shared by everyone in a context of continuous and ambitious growth objectives.

Having commissioned the making of documentary videos exploring the company's history, the sponsor narrowed the research team's focus to gaining a clear understanding of 'who we are and how we behave.' Methodologically, the team put ethnographic observation at the core, supplemented by in-depth interviews and focus groups, while drawing upon a variety of analytical tools and concepts both from the social and business sciences or literature.

APPROACH

The research was conducted with 50 plant employees across all departments, all levels of the corporate hierarchy and all shifts, both unionized and non-unionized. An ethnographic approach including multiple methods was employed across five months of fieldwork, combined with intensive work sessions with top management and follow-up validation/brainstorming sessions bringing together all participants and management.

Although the team initially anticipated shadowing employees throughout their entire shift, plant management felt that 3-hour increments with multiple employees would be more fruitful. This was indeed the case, and it allowed the team to get an up-close look at the work environments, demands and challenges faced at more positions and across more departments. At the same time, it gave the researchers more visibility within the plant, which helped to encourage increased research participation.

The research team insisted that a validation phase be included in the research, wherein they would circle back with participants to ensure that the team's interpretations did in fact capture their perspectives. It was not stipulated up front what form this validation process would take, but was left to be negotiated with upper management in the plant.

FIELDWORK INITIATION

Fieldwork began following the presentation of the research team at a large quarterly assembly. Initially the team was given factory tours and interviewed all levels of management along with some of the factory-floor employees. It should be noted that participation was voluntary, but was scheduled during normal shift hours. This necessitated significant coordination efforts by the human resources as the company's production lines operated with only a limited contingent of substitute workers.

During the initial weeks of fieldwork, the researchers identified a number of competing orientations and frames of reference that were contributing to the central issues. Nonetheless, this early data was proving to be so complex and multifaceted that the researchers felt unsure about defining the issues to tackle. They regularly presented fieldwork reports and preliminary findings to the management team to obtain their reactions and feedback, which allowed them to make decisions on aspects to further document. Initial findings were all about pressure, miscommunications and misunderstandings of respective aspirations.

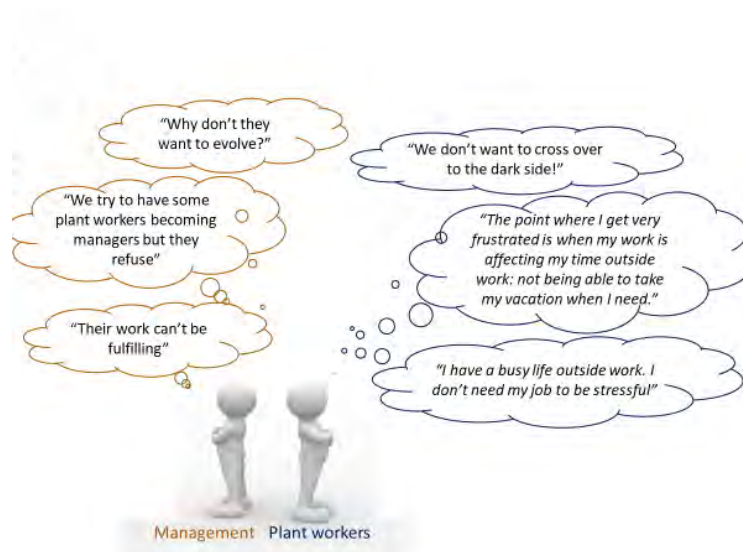


Figure 1. Different views on the place of work in life.

The plant leadership was trying to evolve a more responsible and autonomous workforce, but was relying on a “command and control” leadership style to push through change and motivate the workers. While management was studying innovative approaches to reward employees based on performance, plant workers were asking for something else—they wanted to feel acknowledged and appreciated as individuals by their managers. They wanted personal interactions and a reduction of the distance between managers and workers. In other words, they were looking for *existential recognition* as a basis for meaningfulness at work.

As fieldwork progressed, discussions between management and the research team revealed that several competing orientations and frames of reference were contributing to the central issues. The researchers found a rich culture of collaboration and a pride in the company's products that was being eroded due to a perceived imbalance between increased pressure and a sense that the valuing of human inter-relations in the work environment was deteriorating. Multiple psychodynamic factors were also contributing to a negative discourse.



Figure 2. Lack of recognition and acknowledgement.

A number of gaps were observed between how people in management positions and plant employees evaluated work and its place in their lives. This generated misunderstandings, sometimes leading to judgmental opinions and frustration. It is important to note that the salary gap between plant workers and many of the managers was not significant and that some of the plant workers putting in overtime hours would earn more than some of their managers.

The erosion of engagement and the willingness to be attentive to each other was not only occurring among unionized workers, but also among managers who felt trapped between the increasing demands from top management and the employees. This notably translated into an attitude whereby managers usually tried to comply with any requests from their superiors even when they disagreed.

Independently of all these tensions, one of the most striking initial findings was the strong identification with the company, its products and its ongoing success, that was shared at all levels of the company.

Bringing Attention to Difficult Business Questions

Moving from interviews to factory observations proved particularly revealing, enabling the research team to better understand the contexts to which employees and managers referred during interviews. It provided the researchers with a concrete understanding of the collaborative culture within the plant, as well as differences in ambiance between shifts. It also helped the team identify and request additional observations at key times, such as work cell meetings and shift changes. These observations were crucial to identifying some of the more difficult business issues and the contributing dynamics.

"Forced" Overtime

Finding workers who agreed to do overtime was sometimes a challenge that management had tried to address in the past without much success. Management felt that the current union contract limited the options for a rotation that would include a mix of unionized full time and temporary workers. This resulted in having to pressure temporary workers to come to work for supplemental shifts.

This pressure and the regular effort needed to find employees who would agree to come to work when there was extended production, resulted in everyone talking about "forced overtime". The pressure exerted on some of the temporary workers, the methods used and the impact this had on the personal life of these workers was a dominant theme in all interviews, with older unionized employees who were not affected by overtime requests feeling that this was unfair as well. Management, workers, and union leaders felt there wasn't much that could be done in a context where workforce needs could be highly variable.

The person responsible for scheduling overtime developed various strategies to apply pressure on temporary workers. When being interviewed, he indicated often feeling trapped and not being sure about what to do next. He also felt he didn't have a means of showing gratitude to workers who would try to help, particularly in situations when they could have refused the added work. For example, he wished he could offer them a free meal during the overtime.

The research team's interventions first aimed at communicating that this problem required attention. A few points in the ongoing discussions contributed to a change in perspective. One of them was to question the methods used, the second aspect was to tell stories about some of the impacts of the current strategies: *"The way my kids appreciate me as a father changed since I work here. I'm not there for them and I repeatedly announce at the last minute that I'm cancelling or not attending family activities."* Although, the team later learned that the negative impacts were affecting only a small number of employees, a substantial proportion of the other employees felt this was unfair.

Assimilating this information, management went from thinking the pressure being used was legitimate, to realizing it was a problem. A dialogue between upper management and the research team regarding what had been tried before and what else could be envisioned in the future ensued. This highlighted some key information gaps. The management team didn't know how many workers faced pressure to come to work when they would have preferred not to. They were not documenting when shortages of employees willing to perform overtime occur and how frequently this happens. They were unaware of the processes used and didn't realize that some temporary workers were able to negotiate a planned overtime or no overtime, while others felt there was no room for discussion. All of this new information led to the identification of innovative ways of potentially managing overtime scheduling, as well as the implementation of a tracking system to avoid excessive reliance on the same employees.

Perceived Lack of Ambition: Us and Them

One of the project sponsor's initial areas of interest was how to motivate plant workers. During the interviews with managers, this was described as a challenge due to the resistance to change they were facing. The managers felt that employees did not have an ambition to

grow in the company, and provided examples of employees who opted to change position for a less remunerated job or one that management deemed less interesting.

Plant workers, for their part, indicated almost the opposite. They were proud of working for the company and aspired to contribute to its progress and success. However, they did not feel that they were listened to or valued. Some of the plant workers felt that many of the young engineers who were supervisors have neither the experience, knowledge nor interest in getting a deeper understanding of plant laborers' work, or of the workers themselves, as people. Plant workers were asking for time, often in less formal settings than meetings, to share views with other workers and managers.

Managers did not realize how some shortcomings in their own behaviors and processes were negatively impacting worker morale and performance. They also didn't recognize some of the efforts and initiatives that employees were independently making to ensure productivity. For example,

- There was insufficient recognition of talent and worker contribution beyond apparent performance, which also led to questions about how performance was assessed.
- Communication of information pertinent to production runs was spotty, and the use of a new electronic communication tool had not been optimized, leading to important information gaps.
- Work organization and prioritisation included both formal and informal aspects, the latter of which was often organized between workers from different shifts.
- Relationships and communication were crucial in a context where trouble shooting is a continuous dimension of work and productivity. On-the-ground knowledge of specific machines and of the many potential issues that may cause a production line to stop was key in accurate trouble shooting.

It took time and plenty of storytelling for management to start understanding that plant workers, particularly operators, didn't "feel" or "see" work the same way they did.

It also took time and open-hearted conversations for the research team to understand that although plant workers didn't share the same hierarchal status as managers, they had advantages that were not shared by their managers, and that this situation also contributed to misunderstandings:

- They were protected by a union.
- Due to overtime, they were often earning as much money as managers for similar hours.
- They had a shift organization that facilitated an investment in family life, other projects, education or overtime.
- They often had stability.
- They had the freedom to stop thinking about work when their shift finished.

Managers, who felt trapped between the increasing demands from the top management and employees, sometimes acted as if they needed to release tension. This situation explained various dimensions that were identified as exacerbating mutual

incomprehension and frustrations, and that were ultimately leading to slippages in human relations, such as:

- Inappropriate and humiliating language used by some of the managers when referring to plant workers
- An improvised evaluation process
- A systematic one-way communication pattern

As fieldwork continued to reveal unanticipated contributing factors and issues, repeated and regular exchanges with the plant's top management became key in supporting a process of recalibrating hypothesis and assumptions, and in helping them fully take in the competing frames of reference that were presented. Following analysis, multiple extended work sessions helped management digest the more difficult insights and develop strategies that the workforce was likely to embrace.

RESULTS

From the outset, this project did not include a final workshop or coaching component and was limited to exposing existing issues and proposing potential avenues for improving them. Nonetheless, the extended time frame between project conception and the completion of fieldwork allowed for a certain amount of de facto coaching, particularly with the factory's upper management. The numerous meetings with both the head of human resources and the Vice President of the plant enabled the research team to progressively share their developing findings, along with some thought starters regarding potential solutions. The researchers typically provided them with articles from management journals that helped to define and break down the concepts, along with potential ways of addressing the issues they were bringing forward. This approach and the frequent touch points gradually encouraged management to re-frame how they saw situations so as to better understand employees' perspectives on emotionally charged issues.

A good case in point occurred at a meeting relatively early in the fieldwork process. The researchers highlighted the fact that employees were feeling under-appreciated and were therefore in need of some form of recognition from management. Employees were not necessarily looking to be called out in front of their peers for outstanding performance, something that felt at odds with their collaborative spirit. What was emerging was a desire for *existential recognition*--an acknowledgement and appreciation of them as people. To support this discussion, the team provided an article on employee recognition by J.P. Brun (2008), a thought starter infographic on the gamification of performance management (Messaoud 2015), and a promise to further refine their understanding of what would be meaningful to employees during the remainder of the fieldwork.

This helped to kick-start some preliminary initiatives undertaken by management, notably the formation of a recognition committee composed of both workers and managers. This began while fieldwork was still being conducted and was reflected in subsequent interviews and focus groups with employees who cited this committee as an indicator that things were starting to improve.

Interestingly, the extended presence of the researchers in the factory over several months was also a contributor to the change in attitude that they found between early

reactions to their project and later ones. The first participants, as well as employees who refused to participate, made it clear that this project was a nice initiative, but that nothing would come of it, as was the case with past initiatives. The researchers acknowledged employees' skepticism and emphasized that this project had support from the highest levels of the company, and that they were fairly certain that the results would be taken seriously. Moreover, they assured participants that they would convey the collective points of view that were being shared. Such assurances were supported by management's continued reference to the "Sapiens" project, as the research came to be called.

Developing Empathy

As the team moved from fieldwork into analysis and ultimately the presentation of the research findings, it became more and more clear that for this project to be a success, it would be important for management to deeply embrace the findings. This did not mean that the client had to agree with the employees' points of view conveyed by the research team, but they would need to suspend their own perspective to get into the mind space of their employees if they were to create a truly open dialogue with employees that would make them feel heard. Management needed to try to understand how their employees *felt*.

It quickly became apparent that this would be a process requiring multiple work sessions with top management of the factory. The initial presentation of the findings was met with some resistance, particularly when management indicated that what employees were saying was factually incorrect. The research team emphasized that even if employees were mistaken about events, this was their interpretation. For management to have a constructive dialogue with their employees, they would need to accept that this, along with all the associated emotions, was the perspective of the employees. Furthermore, some of the findings were presented in a way intended to shock, precisely because behavior across all levels of management had undergone slippage, with disrespectful comments and interactions becoming commonplace. A second work session made significant headway as management had had time to re-read and digest the content of the report, making them more open to trying to empathize with the stories the researchers were sharing. The client was intellectually assimilating the employees' perspectives that the team was conveying.

Matrix Creation

Following the initial work sessions, the client requested that the researchers condense the findings into a matrix including major themes, sub-themes, potential actions to be taken, why this mattered (the findings) and a brief example or quote. Although this exercise felt like it was inverting the storytelling while alienating key issues from the situational contexts in which they are embedded, it also forced the researchers to transform findings into action statements and to look at the complexity of their findings from additional angles. More specifically, it forced them to frame the findings in a way that readily fit with their client's decision-making process and facilitated thinking about potential solutions and the feasibility of their implementation.



Figure 3. Matrix of findings

This matrix, covering 4 main themes and 14 sub-themes, became the basis for a third work session wherein the researchers and top management evaluated the relative importance of each issue and the feasibility of executing on them in a relatively short timeframe. The decisions coming out of this session were used to select the key findings which would be potentially actionable and would be presented to employees during the validation sessions.

Validation Sessions

From the project's outset, the research team insisted that there be a validation mechanism whereby the researchers could verify with workers whether they had accurately captured the issues that had been shared. As client and researchers had left the exact format of this validation to be determined, management ultimately decided to present the research findings themselves, with the researchers present, as part of open dialogue sessions. Management felt it prudent to select sub-themes for which they could propose near-term potential solutions as a way of offering thought starters for discussion. While the researchers were initially skeptical about this approach, the presence of a research team member at each of the validation sessions enabled them to offer clarification where needed, while also providing reassurance to the employees that management was accurately presenting the research findings. Management was able to communicate a real openness and willingness to listen, and the employees took them up on it, often recounting some of the same comments and stories that the research team had already shared with management. This forum proved invaluable in helping management take a final step in empathizing with how their employees felt, not just intellectually, but emotionally. Participants not only validated the findings, but also insisted on telling more, which proved to be very compelling. The research team was amazed to witness how much surprise and excitement was expressed by the management team as they reached a new level of revelation and a fuller realization of the opportunities. Management also asked what would be needed to avoid having to hire an outside team to help management and employees better communicate when there is tension in the future, with employees responding that there should be more open discussions like these. By the end of the sessions, multiple employees insisted on thanking the researchers for helping them be heard. The validation sessions were also a rewarding moment for the research team who felt like they were witnessing the first impacts of the research unfold before their eyes.

The plant's upper management presented a fuller version of the findings to all the mid- and lower level managers, which included direct critiques of some of the behaviors the research team had observed among them. The researchers were told that the audience readily accepted the findings, with individual managers admitting that they could see themselves in some of what was reported and that they clearly had areas to improve.

Post-Project Changes

Although the research team were not involved with the implementation of solutions beyond the validation phase, subsequent conversations with the client revealed a considerable number of changes that were put in place as a result of the research.

Prior to the research, the company had embarked on an effort to put in place a structure allowing for proximity management. But while this structure existed, ongoing behaviors and processes were not allowing it to achieve its desired effect--to provide accessible support as employees were progressively encouraged to be more responsible, self-directed and accountable. This has apparently changed because of this research. Each work cell manager was given the mandate to develop their own plan for improving communication flows, understanding, empathy and coaching, in consultation with their employee team. Taking to heart the theme of advocating on behalf of your team, one manager even requested a delay in complying with a human resource request because doing so immediately would "disrupt my Sapiens." This has become the de facto term of reference for managers' new mindset and approach to creating an environment of collaboration, trust and empathetic understanding.

The manager of the shipping and receiving department extended this new-found empathy to relations between his team and the team at their just-in-time logistics partner. The teams of the two companies went on cross-site visits to show each other some of the issues they face, particularly because of the way the other team performed their job. This has led to a greater understanding between the two teams, such that they now avoid practices known to make the job harder for their alter-ego at the other company. For them, developing empathy helped to increase efficiency.

Recognizing that they had to address the occasional need to compel employee overtime work, management has instituted a system wherein they provide a four-week advance view of anticipated scheduling. Management emphasized that the schedule was not a guarantee, and that hours may change depending on actual demand. Having this advance notice, even if subject to change, has allowed employees to better plan their lives. The renewed attention to employee's well-being also had an impact on a new effort to arrange a fast-track reporting system with unemployment during a temporary layoff. This enabled employees to easily file a claim and receive benefits during weeks when some or all of their hours were cut. According to management, employees have commented that this demonstrates that management cares about their employees.

Finally, management has implemented measures to address the recognition deficit. Employees now receive birthday cards with personalized messages from the Vice President of the Plant. Although this might be considered a token gesture, it has had a significant impact on morale, particularly when coworkers see that a colleague has received a card and pass the word around that it is their coworkers' birthday. Even employees who were described as among the most negative have gone out of their way to make positive comments about this practice.

Although the research team has not been able to assess firsthand the actions implemented and has not heard employees' perspectives on what has changed, it would seem that when organizations embrace empathy, even very simple solutions are able to defuse emotionally charged issues.

DISCUSSION

When initially planning, negotiating the scope and setting expectations of a research project within a complex organization several factors should be taken into consideration, as they can impact the quality of the findings and their perceived credibility.

It is important to aim at best-informed consent from participants, including the management team, in order to build trust among participants. This includes protecting confidentiality even if it means not fully providing insights or not supplying enough information to support their credibility. At the same time, the research team should maintain a clear and transparent position on their role, who is commissioning the research and why.

Extended field time, although not necessarily ideal for the research team's time management, can itself be a factor in creating conditions for success. This necessitates flexibility on the part of the research team which may need to adjust their anticipated approach for the ethnographic observations.

Researchers should be prepared to navigate between powerful adversarial stakeholders (e.g. management, union reps). Gaining an understanding of these perspectives can shed light on broader workplace dynamics and may help to clarify issues raised by other stakeholders.

You don't know what you don't know during the project design phase and at the outset of research. Researchers rely on the client to inform them about the relevant parameters to take into consideration (e.g. the number of departments, the company's organizational structure). If the project sponsor is not sufficiently familiar with some of the pertinent on-the-ground parameters that could affect the research, request an early meeting with a key informant who can provide you with this information as it may alter the research design.

Context and Success Factors

By the end of the research, anthropologists may have an appreciation of the complexity of the situation and what they have uncovered and may believe that storytelling is the best way to convey findings. Clients, however, want a much more simplified and structured problem-solution approach that radically distills complex findings. As cultural translators, researchers must also learn to speak the client's language, while not losing the empathy-building quality conveyed through storytelling. The research team believes that the multi-meeting process by which the client team assimilated the findings was essential to the building of empathy and that providing the matrix of insights and recommended actions earlier in the process would have short-circuited this valuable process.

Client organizations exist in an environment that is impacted by their relationships--contractual, structural or otherwise--that limit their choices. In this case, the organization was part of a multinational. As such, local management was sometimes forced to implement policies and changes that went against the prevailing ethos at their site. The research team must also take these constraints into account. Similarly, union contracts can constrain the latitude that management has to alter labor practices such as the allocation of overtime work. Researchers may need to familiarize themselves with these contracts to identify windows for

reconciling inconsistent on-the-ground practices that nonetheless conform with contract stipulations.

This project was able to achieve positive outcomes despite the fact that the consulting researchers did not have an extended coaching role and were not involved in developing a change plan for the client. The researchers believe that this was due in large part to the strength and positive orientations of the underlying company culture, despite their current problems. The company's highly collaborative spirit and the generally congenial workplace were able to support the corrective actions due to an overarching goodwill towards the company and a fondness for what the workplace environment had traditionally been like.

The management team's significant personal investment in the project was a major factor in the success of the approach; they maintained the ownership of the project from beginning to end. They believed in the approach and supported the research team. They accepted to be challenged, and were very attentive to what was communicated. They adopted new perspectives and maintained a transparent and humble attitude when discussing results and changes with their employees.

Perspectives on Organizational Research

While the research for this project was being conducted, management at the plant faced repeated questioning and criticism from their regional superiors about the decision to hire outside consultants, and specifically ethnographers to understand what was the cause of declining engagement and perceptions of leadership. Given this context, the research team felt added pressure to not only provide insights and actionable recommendations, but to demonstrate the value-added that their training and positioning brought to the inquiry. The following factors were all determinant in making the project a success:

Ethnographers Take a Specific “Stance” – As they engage in fieldwork, they aim at suspending judgment in order to better understand and empathize with their research subjects. Although the researchers may have their own concerns and value judgments, including ethical concerns about how the findings may ultimately be used, these must not be allowed to cloud their ability to see alternate perspectives. At the same time, not being members or stakeholders of the organization, ethnographers are able to observe situations and interactions with a fresh, external perspective. This allows them to notice things that organization members, well versed in the unwritten rules of behavior and acceptability, take for granted. They compare not only differences between various stakeholders' views and perspectives, but also discrepancies between what is being said and what is being done. Moreover, they are prepared to observe and look not only for what is happening, but what else could have been expected. But a key success factor also includes serving as 'translators of perspectives', gently guiding and supporting the client's opening to other stakeholders' perspectives.

Anthropologists Are More Than Ethnographers – Anthropologists provide more than just a journalistic report of what has been observed. They organize findings into insights and conduct literature reviews to identify theoretical models that other researchers have used to explain similar issues, both from social science and business journals. This recourse to

theoretical thinking tools can broaden the researchers' own perspective on their emerging findings and help feed into their own theory building. When suitable business journal articles are found, offering them to clients as interesting references can help to underscore the importance of their own research findings.

Social Scientists Are Trained to Work with Complexity – Social sciences, and particularly cultural anthropology, are based on a practice that requires specific skills but also an approach to support validity. It involves a continual back and forth process between fieldwork and analysis allowing for theory building and testing. This not only helps in managing complex streams of information, but also demands that the researchers confront their own assumptions and biases, both explicit and tacit. But researchers' comfort in working with the complex web of factors that impact human interactions and interpretations must also yield to clients' demands for more distilled outputs.

The hard sciences are focused on data with properties (hard, objective facts like weight and distance), while the human sciences collect data that allows us to see aspects, or the ways people experience such properties.
(Madsbjerg et al. 2014)

Consultants Help Translate Insights into Opportunities – Beyond conducting research to uncover the underlying issues and the sources of both negative and positive dynamics in the workplace, the team also served as consultants, collaborating with the client to help them fully grasp the findings, insights and opportunity areas. Being able to provide actionable recommendations, or at least to structure insights in a way that facilitates brainstorming with the client, improves both their relevance and credibility.

Crucial Holistic Involvement – As Blache and Hofman (2007) elaborated, it is important to adopt a holistic approach that includes frequent interactions between client and research teams, as well as a client who is empowered to make iterative changes in the project's direction and has the latitude and openness to explore alternative possibilities. This is essential as ethnographic work often uncovers significant unexpected findings that can at times be challenging to the client's accepted wisdom. For this reason, it is advisable to have the client team participate in the research discovery process to ensure full assimilation and transmission of insights. In an organizational research context, however, direct client observation is not possible when addressing questions that involve inter-hierarchical tensions within the organization. In the absence of this kind of involvement, it is essential for there to be frequent touch points with the client to both verify the course of the research and to encourage their receptivity to alternative ways of viewing the issues that arise.

Cultivating Empathy – Ultimately, one of the most important outcomes of this project was the cultivation of empathy, particularly among management. It is only in the period following the completion of the project that the team realized the critical role that the *process* of helping clients to develop empathy with stakeholders that may view situations from a very different perspective than their own. Throughout the process management displayed attitudes of openness, but also rejection, a return to openness, and intellectual understanding. This culminated in validation sessions where upper management was

ultimately able to emotionally embrace and empathize with the perspectives of both floor employees and lower levels of management. But following the project, the client's ability to use empathy not only to address issues that had been creating tension, but to extend this mindset from intra-team communication to understandings of the perspectives of their external stakeholders. This demonstrates that empathy has a real contribution to make, not only in improving the workplace environment, but in uncovering hidden opportunities to increase productivity. These multiple impacts of empathy as a process and not just a sentiment, merit further research in the organizational context.

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Case Studies 2 – Narrative and Perspective Shifts

It's Not Childs' Play: Changing Corporate Narratives Through Ethnography

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After discovering that there were over 25 projects going on in various business units in the company that involved children as end users, and that most people had a limited understanding of children's play, the researchers proposed a multi-cultural ethnographic project called ChildsPlay. This case study illustrates the many ways that a well-planned ethnographic study can influence the trajectory of a company's culture, highlighting institutional challenges, describing the ethnographic methods and theoretical underpinnings that guided the research and its analysis, and touching upon the importance of play as an anthropological focal point. The case study closes with a discussion of a notable shift in the narrative around Intel's child-focused product efforts, and the tangible outcomes of the research with respect to product development.

Keywords: Ethnographic case study, Play, Culture, Gender, Technology, Narrative Shifts

For many years the conviction has grown upon me that civilization arises and unfolds in and as play. (Huizinga, 1949)

THE SETTING

When the ChildsPlay project began, the authors both worked at Intel. They worked in two different business units: Anne in the New Devices Group, and Thérèse in Intel Education, which resided within the Sales and Marketing Group. Anne had been working on a smart toy landscaping exercise, and had reached out to people doing work within the company related to toys and games and to her surprise she discovered that there were more than 25 prototyping or development projects that involved children as end users.

The exploratory work on toys and games led to a brainstorm session focused on “smart toy” concepts, which is how Anne and Thérèse found themselves sitting together in a room full of male engineers and business people from around the company. As happens in good brainstorm sessions, ideas flowed freely. By the end of the day, the team had amassed close to 100 ideas, categorized them, and voted on which ideas were worth considering further.

At one point during the day, Thérèse had asked the team to “imagine the user we should be designing for, describe what they look like, how old they are, and what they enjoy doing.” Overwhelmingly, the men on the team all described a ten-year-old version of themselves, forgetting about girls and anyone without a propensity for engineering. Anne then commented that a majority of the ideas throughout the day were boy-oriented, which now made sense because the majority of the brainstorm participants were describing their own interests. She wondered out loud, “Don't girls need technology toys too?” She went on to explain that if girls were ever to develop an interest in technology it was essential that they be exposed to it. Thérèse agreed. As the day wore on some “girl” ideas were floated, but most of the ideas from the men in the room were stereotypical, princess and fashion-

focused, in contrast to the “boy” ideas, which were more building, programming, and problem-solving oriented.

Throughout, Anne and Thérèse documented questions raised by the team; there were a lot of unknowns around the current state of play and interests of children. What analog toys did children play with today? What digital toys? How different was girl and boy play? Are gender neutral toys really the answer, or do we want to make toys for boys and girls that teach the same skills? Do today’s kids really still care about Harry Potter or Nancy Drew? What shows on TV were kids watching? What media were they using? How many had access to phones? What were the overriding concerns of parents around play and technology? How much money were parents willing to pay for a smart toy?

Privately, Anne and Thérèse commiserated about the lack of cool tech toys for girls. Both authors had invested large swaths of their careers to issues related to gender parity, in recent years both focusing on getting girls interested in STEM fields. They saw that this moment might provide an opportunity to shift the narrative within the company, and possibly in the toy industry. Anne and Thérèse suggested that a deeper dive into these and other questions might be helpful. The team agreed that there was a clear need for research. Although, Thérèse and Anne had a keen interest in exploring issues of gender, in the interest of garnering support, they felt compelled to deemphasize that aspect of the work in the proposal phase, instead focusing on some of the more tactical benefits of doing a general study of play. They had a hunch that gender would surface, regardless.

The following case study describes a subset of the resulting research, ChildsPlay—how it unfolded, why an ethnographic approach was the best approach, other methodological decisions, research findings, and outcomes.

ACT I: CHILDS’ PLAY, CROSS-CULTURAL COMPARATIVE STUDY OF PLAY

Anne and Thérèse recommended an ethnographic approach because they felt that a quantitative approach alone would not adequately explain the complex social and cultural aspects of play. Play has long been the subject of anthropological inquiry and as such, a rich theoretical corpus has evolved on the topic (Karpatschhof, 2013). Anthropologists and psychologists widely accept that culture and play are intimately intertwined, that children’s play reflects the cultures in which it takes place, and that play is a central human activity in which children learn how to be fully functioning adults within the bounds of their social and cultural environments (Holmes, 2013). Although the theoretical literature on play is rich, the cross-cultural comparative study of play in industry is spotty, and often narrowly focused on particular types of play (e.g., imaginative play). Anne and Thérèse wanted to gain insights into the broader spectrum of play over the entire arch of childhood, from pre-school through high school ages, in relevant markets, and also to understand play from both the child and parent perspectives.

Study Overview

The researchers knew that getting funding for this research would be difficult. Most UX teams in product groups at Intel have limited research budgets compared with marketing teams. To do the type of project they wanted to do, Anne and Thérèse knew that they would have to do the research on a tight budget, and also get money from multiple stakeholders.

Therefore, they developed a proposal with a lot of built-in flexibility to shop around to potential sponsors and show potential impact and implications specific to their individual business unit needs. In addition to doing as much of the research heavy-lifting themselves, they proposed doing the research in phases (Figure 1), thus being able to demonstrate the value of the effort and potential added value of comparative studies in countries other than the US

The pilot phase of the research (see Figure 1) consisted of in-home participant-observation of play sessions with kids and informal semi-structured interviews with parents and children aged 3 to 13. Anne and Thérèse decided to focus the in-home sessions on children under 13. They knew from previous research they and their colleagues had done that children begin transitioning from playing with traditional toys to predominantly digital play as early as age 7, and with the exception of playing sports most kids in their teen years engage almost exclusively in digital play (Lenhart, 2015). For this reason, data collection for teens was limited to the quantitative portion of the study. To economize further, the researchers used a snowball sampling approach, drawing on friends-of-friends in the San Francisco Bay Area and Portland, OR metropolitan area. Effort went into recruiting families that represented a range of income categories, from lower middle to high income, and ethnicities that would reflect the cultural diversity of life in the US.

The data collected in Phase I informed the development of the two surveys for Phase II. Anne and Thérèse designed the initial survey and hired a third-party vendor that had a strong parent-child panel and experience with surveying children on a variety of topics. The vendor administered the kid survey and the parent survey simultaneously. The vendor suggested using a single- branched survey design that would involve parents recruiting the children, an approach that worked well. The vendor sent out participation invitations to members of their panel known to have children. After parents were qualified through a set of screening questions, they were asked if one of their age-qualified children were available to complete a short survey.

One of the advantages to this approach was that it streamlined parent permission for completing the survey. Another advantage was that it simplified recruiting considerably. Anne and Thérèse decided to survey only children aged 8 and up because they did not feel that one could reasonably expect younger children to have developed the reading and cognitive skills to complete such a survey on their own. The parent survey sampled the parents of children across the full spectrum of ages.

Upon conclusion of Phase II, the researchers presented preliminary findings to stakeholder groups, demonstrating the value of the research, and garnered the funding and support to duplicate the research in two other geographies. They had originally proposed extending the study to one European country, China, India, and Brazil, but only succeeded getting funding for two of the four due to budget constraints in the sponsoring organizations. Because both European and Asian markets are a priority to the company, they selected Germany and China.

Phase I	Phase II	Phase III
Pilot Research <ul style="list-style-type: none"> • 14 households • Distributed across households with kids ages 3-5, 6-8, 9-12 • Non-Intel*, network recruiting • Test survey designs <p>* Intel families are pre-disposed to technology. In NDG we have done comparative studies that demonstrate the need to do research outside of the Intel family.</p>	Kid Survey (US) (n = 200) <ul style="list-style-type: none"> • 10 minutes • Children ages 8-18 • Quotas for age groups and gender Parent Survey (US) (n = 300) <ul style="list-style-type: none"> • 15 minutes • Quotas by age and gender of children 	Global Research (Germany and China) Kid Survey (n = 200) Parent Survey (n = 300) In-home interviews (11 households per country; 1.5-2 hours in duration interviews with parents and children, including observations of play and play areas)

Figure 1. Three phases of the ChildsPlay research. Phases I and II were in the US and laid the foundation for research in other countries in Phase III. The original proposal also included India and Brazil. All participants for in-home interviews were considered middle to upper class within their country. Researchers conducted in-home research in the Portland, San Francisco Bay, Frankfurt, and Shanghai metropolitan areas. Survey data provided a broader selected sample of people from different social economic groups, gender, age, family dynamic, and location from the whole country.

ACT II: THE STORY UNFOLDS

The ChildsPlay research project generated a significant body of data with many interesting results. The present discussion covers three key stories—Culture Matters, Orientations Toward Play, and the Gender Story—discoverable only from an ethnographic perspective and methodological approach. Had Anne and Thérèse limited data collection to surveys, a data collection method that is currently favored within the company, these key explanatory insight areas might not have come to light. Without participant-observation, making sense of the broader quantitative data and understanding how it relates to the future of play, it would have been considerably more difficult, if not impossible, to draw actionable insights.

Culture Matters

Compared to qualitative sources of data, Intel more typically uses quantitative data. Therefore, Anne and Thérèse had to make a case for including participant-observation, in-home interviewing, and play context documentation in their research. The pilot phase (see Table, the US in-home sessions) provided the justification sponsors on the business side needed in the form of valuable insights into the ways in which non-quantifiable aspects of cultural context shape play. A discussion of three areas of cultural significance drawn from both research phases follows: settlement patterns, social institutions, and gender roles.

Settlement Patterns – A key difference between the US, China, and Germany is in the density of settlement, and the availability of outdoor play spaces that are contiguous to the home. In the US, a majority of homes have yards, even multi-family dwellings typically have a place to play, except in the most densely settled cities. Overall, Germany tends to be more densely settled even in the villages where houses are clustered tightly around a central point. German homes usually have small yards or patios, or a larger area that is shared by a group

of homes. Their access to a contiguous outdoor play area is slightly less common than in the US. In China, the most densely settled of the three, access to a contiguous outdoor space to play is rarer. Interior space does not differ dramatically between the three in terms of size.

Clearly, having safe outdoor places to play by one’s home makes the possibility of outdoor play greater. Because US citizens have more outdoor space available (as measured by survey), one might therefore assume them to have a greater orientation toward outdoor play than the either German or Chinese families. From an ethnographic perspective, this did not turn out to be the case. German families place a much higher premium on free outdoor play than either Americans or Chinese. One interesting finding from our ethnographic research is that a relatively high proportion of participants belonged to a *schrebergarten*, a German institution of allotment gardens established in the late 19th century. These urban families without contiguous play space often spent weekends in the *schrebergarten* explicitly “so that the children can play outdoors” (German Mother).

Because of the lack of outdoor play spaces by the home in China, outdoor play is a rarity. Many Chinese parents also expressed greater perceived risks of playing outdoors: “It is so dirty,” “Too dangerous,” “Too polluted.” Some parents among the participants allowed their child to play a team sport outdoors, but other parents found even this activity too dangerous. An additional cultural particularity relates to a general restriction on unstructured playtime.

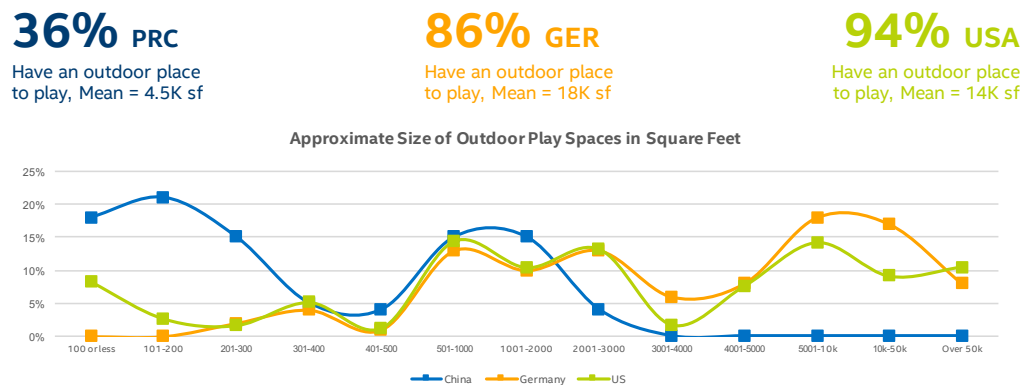


Figure 2. Availability of contiguous outdoor places to play has ramifications for product design and marketing of toys intended for outdoor use. Understanding settlement patterns and how different peoples think about outdoor play is also important.

Social Institutions – One aspect of social life that has a huge impact on how, when, and where children play is the education system—the length and regularity of the school day, and availability of childcare (Figure 3). German children spend the least amount of time in school (3 to 4 hours per day), and have the greatest freedom with it comes to unstructured time, while Chinese children have the longest school day (7 to 8 hours per day), and have the least amount of time for unstructured play. From day to day, a German child’s school day can vary; a German child may have a different schedule every day of the week. Both US and Chinese children attend school consistently during the same times every day of the week during the school year.

Furthermore, when outside of school German mothers usually supervise their children, as mothers do not regularly work outside the home. In addition, institutionalized childcare available outside of school hours is limited. In the US, mothers typically work outside the home and rely on after school day care or extracurricular activities to entertain their children after the children finish school and before their parents return from work. In China, families tend to rely more heavily on grandparents or other family members to watch children outside school time, since in most families both parents work long hours.

Each of these cultures embraces differing ideas about how children should spend their “free time.” Chinese parents prefer their children focus on educational pursuits outside of school time. Many Chinese children remain at school to take “catch up” classes, classes that are more about keeping up with heavy academic workloads or getting ahead than skills-training. Chinese parents actively discourage their children from participating in “frivolous” activities, like dance and art classes. They believe such activities will do nothing toward making their child competitive for University. Music lessons are one exception. For example, one 8-year-old girl lamented that her parents would not allow her to go to a hip-hop dance class, and her mother explained that her daughter needed to focus on academics.

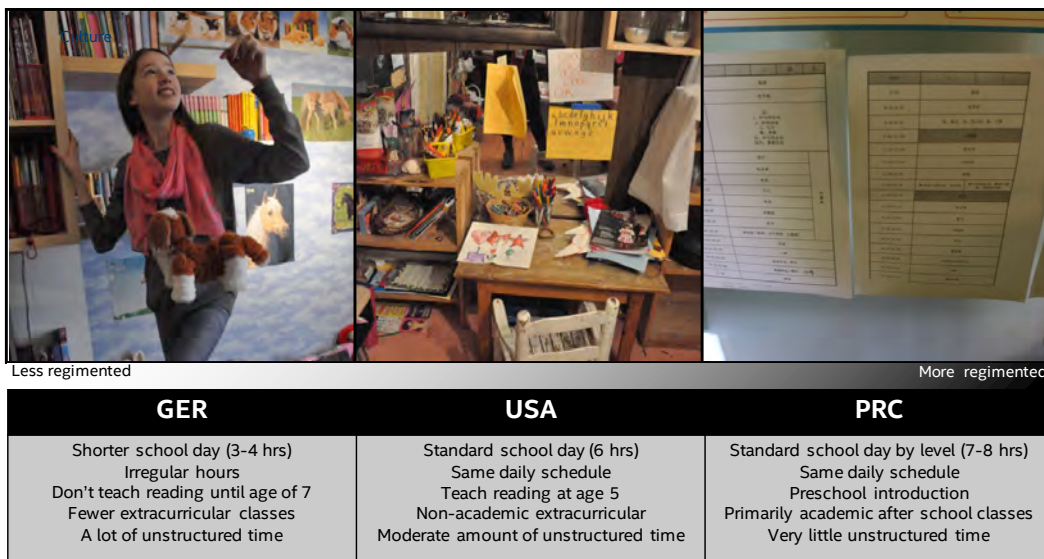


Figure 3. Social institutions, like the education systems, and the consequent amount of unstructured time available to children, shape play, and degrees of freedom in play. German children have the greatest freedom with their time (fewer scheduled activities and more free play), while Chinese children have the least (more scheduled activities and less free play).

By contrast, a majority of US child participants engage in a wide-range of non-academic activities after school, both structured and unstructured, activities dominated by sports, and after-school clubs related to other interests, like acting. Some children attend tutoring after school if they struggle with a particular subject area. Overall, German children engage in the fewest planned activities during their free time, and parents encourage them to entertain themselves (Figure 3). Reflecting this sentiment, one German mother said, “It is completely fine if my daughters only play with what they want. I try to help them to be able to do what

they want, but they mainly play on their own.” Most, but not all, of the mothers we spoke to in Germany encourage free and fantasy play. Furthermore, the value placed on self-management and open-ended play in childhood also extends to outdoor play, especially in smaller suburban settlements.

Gender Roles – Women are the primary care takers in Germany, the US, and in China, but their lives vary considerably in part because their support networks, availability of childcare, and work opportunities vary so much. German mothers lament the social system that gives them such lengthy maternity social support, because in their view it functions ultimately to keep them out of the workforce as full-time employees. They complain of feeling systemic pressure to stay home with their children, even when they would prefer working. For women who decide to work, the length and variability of the school day, presents special challenges, since daycare is not readily available, and most mothers don’t have extensive, nearby family networks to rely upon.

In contrast, all but one of the Chinese mothers in the study, worked full-time, made possible by the fact that the school day is long and regular. Another enabling factor is that a majority of the Chinese families either have a grandmother or other family members, living with them or nearby who help out with the children. Most of the time that women in China spend with their children is in attending to them while they do their homework. During the short periods of unstructured playtime, children have the freedom to play on their own, but with more limitations on screen time than do either US or German children.



Figure 4. Institutional and social support for women varies greatly by country, especially when it comes to availability of childcare. This was most problematic for our German participants.

The US presents more of a mixed picture—some mothers in our study work outside of the home full-time, others run businesses from home, and for the sake of flexibility, a few work part-time. Most US mothers that we spoke to feel that they had made a choice about working or not working. In some cases, they work out schedules that are mutually beneficial

to their partners. This allows partners time to spend with their children, help them with homework, or ferry the kids to one of their many after-school activities. US children have more freedom to play than Chinese children, but less than German children.

Orientations Toward Play

The Five Orientations – In analyzing the in-home research data, Anne and Thérèse identified five orientations to play (Figure 5). Each of these orientations are evident to greater or lesser degrees in each country, reflecting propensities engendered by cultural perspectives, some touched upon above. While none of the orientations are anti-technology, some types are more predisposed to technology than others. In all countries and all households, screen technologies are pervasive. In addition to screen technologies, many households own and use a broad range of electronic toys, including handheld games, musical, robotic and animatronic toys.

1. *Outdoor/Physical.* These families favor outdoor play, often reflected in the fact that they engage in one or more outdoor sports, sometimes as a family. For these families, fitness is a priority.
2. *Tech/Independents.* Children in Tech/Independent households have a lot of freedom when it comes to using technology. Unlike other types, they have few restrictions on amount of time using technology, or even on what they are doing. Parents in these households believe that their children need to learn to use technology for success in the future, and to use it responsibly. These households tend to have many gadgets.
3. *Education/Regimented.* These households are highly scheduled, and they structure almost all activities, including play activities with educational goals in mind. These homes have the smallest toy collections, but the toys owned are usually of high quality.
4. *Creative/Analog.* Creative/analog homes are all about “making from scratch,” and typically display a lot of children-made art, as well as parent-made items. Creative/Analog appreciate free play with raw materials, and encourage their children to engage in both guided and unguided making activities. Making can be digital as well as analog, for example film making.
5. *Creative/Independents.* The value of free imaginative play over making distinguishes Creative/Independents from Creative/Analog. In these homes, children frequently have few “toys” or materials to play with. However, they may have lots of dress-up clothes. While parents sometimes engage in play, they expect their children to entertain themselves.

To develop the five orientations, researchers identified 7 key vectors in their analysis of participant-observation notes and interview transcripts. Vectors they identified included:

- Outdoor—Indoor: degree to which households favored indoor vs. outdoor play
- Technology—Analog: degree to which analog play valued over digital play
- Bedroom—Whole house: where indoor play predominantly took place in the home, in an isolated space like a bedroom or playroom vs. all over the home

- Independent—Family: whether children played mostly on their own or with other family members
- Guided—Open-ended: whether an adult with specific goals in mind guided play activities (e.g., building a kit), or the child directed the play and play was open-ended.
- Educational—Physical: degree to which play focused on educational and cognitive goals vs. being physically active
- Regimented—Creative: scheduled and structured activities vs. free-choice activities

The researchers assigned scores to each family taking both child and parent perspectives into consideration. Each researcher scored the families independently and averaged scores to come up with the orientation schema particular to each family.

While each orientation type is present across all three countries, to greater or lesser degrees each culture exhibits propensities toward particular orientations. For the US, what we call the Creative/Analog orientation, and the Tech/Independent orientations are more prevalent. In China, the Education/Regimented type dominates across households even though there are exceptions. In Germany, the Creative/Independent type dominates. Furthermore, the types are not mutually exclusive, and many families exhibit a mix of orientations. For example, all families in China exhibit a strong propensity toward educational play, but some simultaneously value creative open-ended play.

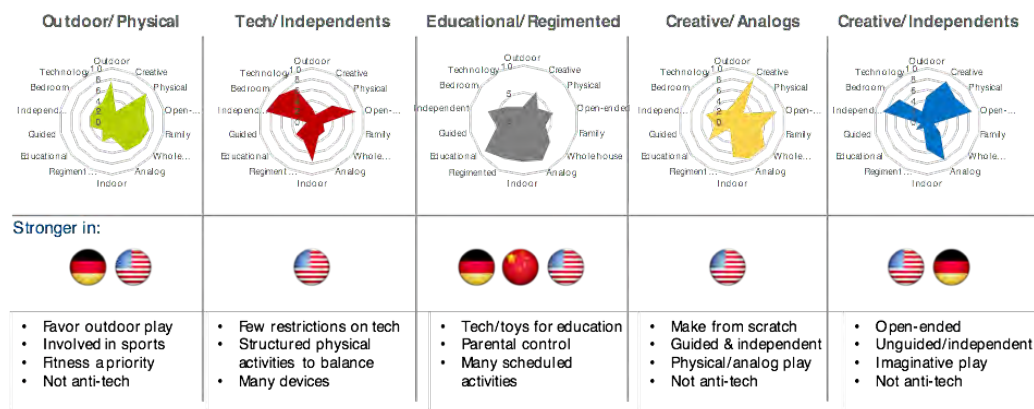


Figure 5. Five identified orientations toward play were identified in all three countries to greater and lesser degrees.

Usefulness of Orientations – These five play orientations, and an understanding of how they relate to different cultural perspectives, have been very useful in thinking about how to position, market and message products. For example, our study shows that Chinese families highly value toys and games that are education-oriented. Therefore, even if designing a smart toy for the US market with “making from scratch” in mind, one may find success in the Chinese market by messaging around teaching programming skills or enhancing spatial abilities.

Another place where these orientations have been useful is in developing design personas. Anne and Thérèse created participant profiles for all child and caretaking parent participants, including their individual play orientation mapping. This has helped design and development teams in thinking more critically about who they are developing their smart toy products for, and what matters to them.

The vectors identified from the qualitative portion of the ethnographic work could also be used to develop quantitative market segmentation, although to this point the vectors have not been used that way.

A Gender Story

Gendered Play Patterns – Perhaps the biggest story to come out of the ethnographic research, both qualitative and quantitative, relates to gender differences in play, toys owned, and play preferences. Gender differences in play have long been of interest to developmental psychologists and anthropologists. Because many play activities are practice for becoming functioning adults (e.g., playing house, doctor, etc.), one gets a distilled view of cultural beliefs related to gender roles in observing children’s play. Beyond imaginative games, looking at what toys are played with, what toys parents encourage, and other play activities deemed appropriate for children of each gender gives additional insight into expectations of what boys and girls will grow up to be. Lise Elliot, neuroscientist and author of *Pink Brain, Blue Brain* (2009) asserts that differences in girl and boy play are very small at birth, beginning to differentiate observably around the 18-month mark. She argues that biology accounts for some of the difference, but that cultural constructs of gender, and the resulting toys children and games children are encouraged to play with are additional reasons the gap widens so much as children age.

Anne and Thérèse sought to understand better how the toys children played with at a young age relate to the kinds of interests they develop in late childhood. While unable to get a definitive answer without a longitudinal study of the same children, the researchers documented the widening gap between toys played with in early childhood and interests in later childhood.

In all three countries the gap is evident, although somewhat less so in China—perhaps because of the strong emphasis on educational toys for both boys and girls. In addition to looking at the relation of toys owned to interests developed, Anne and Thérèse were interested in learning more about how girls and boys play with the same category of toy. LEGO was the most pervasive toy played with across all three cultures, providing interesting comparative data for boy and girl play.

The index number represents the relative likelihood that a boy will have an interest or own a toy compared to the overall average (boys and girls). 100, is the average, represented by the mid-line.

Looking at USA, first data points— younger boys are about 21% more likely than the overall average child to have a robotic toy, and older boys are about 78% more likely than average to have an interest in robotics.

Above average = more boy oriented

- USA kids ages 8-18 interests
- USA kids ages 3-7 toys
- GER kids ages 8-18 interests
- GER kids ages 3-7 toys
- PRC kids ages 8-18 interests
- PRC kids ages 3-7 toys

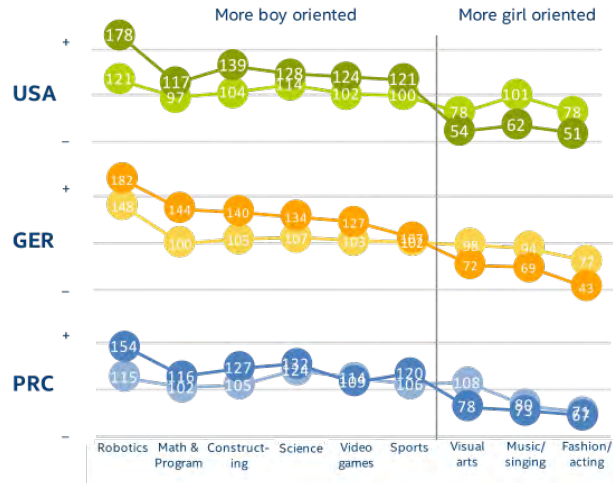


Figure 6. Data suggests that there is a relationship between the types of toys played with in early childhood (ages 3 to 7) and the interests one develops in later childhood (ages 8 to 18). We did not classify toys as more girl, or more boy oriented. This designation fell out of the quantitative data analysis; if a toy type (e.g., robotics) were owned by, or of greater interest to, boys than to the overall average (both boys and girls taken together), the index score was over-indexed (above 100). Scores above 100, therefore are by definition more boy-oriented, scores under 100 more girl oriented.

LEGO story – Parents in all three countries express beliefs that LEGO play provides important foundational skills. They encourage both their boys and girls to play with them. However, what “play with them” means varies from household to household and from culture to culture. Some parents express a desire for their children to play freely with LEGO, not using any kits, just building things from their imaginations. This view is more common in the US than in either Germany or China, where kit building is favored, and the children build LEGO under more guidance. In China, a couple of children even attend LEGO classes where instruction, assignments, and grades on execution is given to them. In all three countries, girls play almost exclusively with LEGO Friends, a line of LEGO designed for and targeted to girls. Boys build any one of the many hundreds of choices marketed to them.

The “boy-oriented” kits, like Mindstorms, Technic, Creator, Star Wars or Ninjago, lines range from simple to complex, some requiring adult help, something that many fathers enjoy doing with their sons. Only a couple of fathers in the participating households play LEGO with a daughter, and no mothers we interviewed or surveyed express an interest in playing LEGOs with their daughters. Boys have much larger and extensive collections of LEGO than do girls, and, in general build things that are more mechanical in nature, some with moving parts and functions. Girl-play with LEGO Friends is narrower, less about building and more about social play. Most of their kits are for building domestic and recreational scenes that they can put their “friends” into, like a dollhouse. A couple of girls that the researchers spoke with said that for them, it is about “collecting friends” and competing with their real-world friends to see who has the biggest collection of friends and kits. While some boys engage in character play with structures they build, it is less common.

Anne and Thérèse found these differences in LEGO play striking. Other researchers have found similar results (Black et al., 2016). Was it that girls are not innately interested in

building cool things with moving parts, or is it that the kits that are created and marketed to them feed into pre-defined notions of what girls like? Probably a little bit of both.

ACT III: FINALE—WE REAP WHAT WE SOW—NARRATIVE SHIFT

From their research, Anne and Thérèse wanted to drive home a key message to their Intel colleagues and to toy and tech industries. It goes beyond tactical application of findings to specific business and design questions. The message is that if we do not expose boys and girls to the same types of toys, and teach them the same foundational skills at an early age, then girls will not have the opportunity to develop the requisite interests, and consequently, are less likely to develop parity in STEM fields. From previous work (Faulkner and McClard 2014) on girls and women tech makers, Anne learned that many women come to “tech-making” through the arts. ChildsPlay and some of Thérèse’s previous research (Dugan, 2012; Dugan, 2008) combine to show that the story starts at a much earlier age. Many women in the tech industry today describe growing up in households with STEM professional parents, fathers and mothers who took active roles in their play, encouraged them to make things and to develop interests in science and technology (Wittmeyer et al., 2014) from the beginning. While the industry can’t control parental influence, it can control marketing messages around the products they sell, and it can design toys that will appeal to girls, engendering an interest in STEM.

Anne and Thérèse witnessed a shift at Intel in what their teams worked on, and how they thought about toys aimed at girls and boys. Several “maker” toys aimed at girls emerged, and Intel became involved in a cross-media effort around a Netflix show aimed at tweens and teens that features smart and cool girls (projectmc2.com). What had been a non-topic for many, gender, became one that was at a minimum now considered in development projects. Intel brought more women into the development process. Teams working in the toy space began to consider how one might engage girls at an earlier age with making and technology, including the development of smart programmable toys that would appeal to girls’ already-established interests in non-tech creative making. Furthermore, the fact that Intel could demonstrate a broader understanding and expertise of toys and play in cultural contexts gave the business credibility, fostering partnerships with companies that develop smart toys. Thérèse and Anne have presented their research findings at a major toy conference, to toy manufacturer partners, and to various academic audiences, and find that people are hungry for the kind of data this research generated. Using an ethnographic approach and looking at play from a broad cultural perspective was critical to the project’s success, and in changing the narrative around smart toys and play within the company.

Anne Page McClard holds a doctorate in cultural anthropology, and has worked in the technology industry for more than 20 years. Anne uses ethnographic research to influence and drive product design and strategy, in both consumer and B2B markets. Throughout her career, she has sustained an interest in gender issues in academia and technical industries.

Thérèse E. Dugan is a child-computer interaction expert who works at the intersection of future technologies, education, and entertainment. She has a PhD in Learning Science and Human Development and over 15 years of experience as a cross-disciplinary scholar, researcher, artist, user experience researcher, product designer, and teacher.

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Case Studies 2 – Narrative and Perspective Shifts

Changing the Perspective of Government

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This case study highlights the value of ethnography in changing a client's perspective. New Zealand's productivity has been decreasing, and the government wants to reverse that trend. Empathy's government client believed that macro-level forces were having a major impact on the productivity of small businesses, and wanted to suggest ways for small businesses to directly combat those forces. Empathy conducted ethnographic research, and the results required the client to change their perspective. While the government client saw increased productivity as a means to increase the standard of living, ethnographic research revealed some small businesses see increased productivity as a threat to their values and standard of living. If the government wanted to increase productivity, they were going to have to change tact completely and start talking to and supporting small businesses in a way that took their fears, motivations, beliefs and values to heart.

Keywords: ethnography, small business, productivity, government, perspective

CONTEXT

Client Context

A nation's productivity is routinely linked with its standard of living and its ability to improve wellbeing for the people who live there. Unfortunately, New Zealand's productivity and thus standard of living have been dropping compared to other nations. The New Zealand Productivity Commission claims that New Zealand has slipped "from once being one of the wealthiest countries to now around 21st in the OECD." It claims: "New Zealand has a poor productivity track record and lifting productivity is a key economic challenge" (Productivity Hub 2015).

The New Zealand government wants to increase the country's productivity — how efficiently an organisation can turn its inputs, such as labour and capital, into outputs in the form of goods and services. The New Zealand Productivity Commission was created by an Act of Parliament in 2010, "to provide advice to the Government on improving productivity in a way that is directed to supporting the overall well-being of New Zealanders."

The Commission and other interested parties have been investigating why New Zealand's productivity is so low compared to the past and to other OECD nations, and what

can be done about it. Lately, focus has shifted to include productivity within the country's small businesses.

In New Zealand, a 'small business' is typically defined as one having fewer than 20 employees (MBIE 2017). Ninety-seven percent of New Zealand's businesses are small by this definition. Further, it is estimated that 70% of New Zealand businesses have zero employees. Small businesses currently contribute about a third of the nation's gross domestic product (GDP), and employ about a third of employees (MBIE 2017). They are a significant component of New Zealand's workforce and economy.

Small businesses in New Zealand



97% of businesses



Contribute about 1/3 of GDP
(gross domestic product)



Employ about one-third
of the workforce

A team within the New Zealand government, referred to as BG, are responsible for helping small businesses succeed from start-up to fully established and to achieve their definition of success. BG helps government policy makers and service owners to understand and design policies and services for small businesses, and provides a website and other resources for the small businesses themselves. The team sits within the Ministry of Business, Innovation and Employment.

Together, the Productivity Commission and BG were keen to see if they could better support small businesses to lift New Zealand's productivity.

Key Players in this Case Study

The New Zealand Productivity Commission. An independent Crown entity who provides advice to the Government on improving productivity, directed to supporting the overall well-being of New Zealanders.

BG. The client. The government team responsible for helping small businesses succeed from start-up to fully established and to achieve their definition of success. Part of the government's Ministry of Business, Innovation and Employment. The primary client on this project. The project lead and champion at BG is a recent MBA graduate with a passion for productivity and business performance.

Empathy. A business design studio. Uses ethnography, design and business strategy to uncover powerful needs and insights around latent opportunities, leading to innovation. Works with the private and public sector. Works extensively with the Ministry of Business,

Innovation and Employment. Is the customer-centred design and delivery partner for BG, responsible for shaping and extending the value offered by the BG website.

Wider government. A term used to refer to government stakeholders in the project beyond BG.

Small business participants. The small business employers and employees with whom we conducted ethnography, and whose productivity we are ultimately trying to improve.

PROJECT BRIEF AND SET-UP

Defining Productivity

BG and the Productivity Commission both want to increase the productivity of small businesses.

BG initiated a project to create online tools and resources for small business owners and operators. The champion of the project within BG briefed the Empathy team.

The first challenge for Empathy was to understand the definition of productivity. Empathy asked BG, who asked the Productivity Commission and also one of the top government economists. Each had a slightly different definition. Eventually, the team settled on productivity being how efficiently an organisation can turn its inputs, such as labour and capital, into outputs in the form of goods and services.

Empathy wondered how small businesses would define 'productivity'.

Agreeing a Research Focus

The government had largely focused its efforts to understand and increase productivity on macroeconomic forces. Examples included distance to global markets, lack of technical diffusion, a shallow capital economy, and lack of competition. That thinking, combined with discussion of productivity in academic literature and MBA-type sources, had transferred to thoughts about small businesses. The suggestion from wider government and BG was that these macro-level causes of productivity could be considered at a business level, and corresponding business-level interventions created.

For example, one perceived macro-level cause of New Zealand's low productivity is a lack of technical diffusion. New Zealand businesses are not staying up-to-date with, and adapting to, the newest technical innovations from other countries, such as robotics or internet of things. BG wondered whether Empathy could identify ways that small businesses could implement meso or micro solutions to overcome the macro issue. An example they gave Empathy was that small businesses could tailor hiring strategies to recruit employees from "frontier regions," such as health companies recruiting talent from the medical innovation frontier of Boston, USA. The following excerpt is from the client's brief to Empathy. It outlines the client's expectations about the kind of strategies they expected small businesses to implement in order to improve their productivity.

Macro force: Technical Diffusion

Strategies to note in relation to the adoption of new innovations:

- Are firms using governance eg. a board that have people in these areas?

- Are firms seeking Mentors with skills in these areas?
- Are firms proactively researching trends in the industry and ways to stay up to date?
- Are firms using hiring strategies to compensate? (eg from overseas)
- Are owners / managers attending events and traveling to seek these out?
- Is there an active resource strategy and adoption strategy?
- Do they have an R+D lab to generate their own innovation if shut out from global trends?

BG expected Empathy to conduct research with small businesses. They hoped Empathy would look at ways in which the macro-level causes of productivity were at play at a business level, and whether the businesses were using any of the pre-defined strategies to overcome the negative forces. If the businesses were not using the pre-defined strategies, BG could suggest those strategies to small businesses via the website, prompting new ways to combat the macro-level issues and improve small businesses' productivity. Further, BG suggested that raising small businesses' awareness of macro-economic factors would in itself help them to become more productive.

Empathy was worried about this approach to the creation of interventions to increase small business productivity. They were skeptical that raising awareness of macro-economic factors would provide any actionable information for small businesses, or that identifying and highlighting unused strategies from a predefined pick-list would engage and aid business operators.

Instead, Empathy wanted to design interventions specifically for New Zealand's small businesses. They first wanted to understand the perspective of small businesses. What does 'productivity' mean to small businesses? How interested are they in increasing their productivity? What actions are they already taking? What do they perceive is standing in their way? From there, Empathy argued they would be better able to design tools and resources to support small businesses, because the client could base those interventions on the small businesses' point of view.

Empathy did not want to focus on macro-level influences. They argued strongly for an ethnographic approach that enabled an understanding of productivity from the small businesses' point of view.

Empathy explained that focusing on macro-level influences and pre-determined strategies was presumptuous and dangerous. It presumed that macro-level forces were the most negative influence on small businesses' productivity, and that the only strategies used were those pre-determined. By hunting for those specific things in the field, Empathy might produce biased results — looking for impact of a specific macro-level force or implementation of a specific strategy might lead the team to see things that were not strictly present. Further, Empathy might not see if other forces were having an impact, or firms were employing other strategies.

By being open to what they might find, forces and strategies would emerge from the fieldwork — both those actually at play, and those the small businesses think are at play. Further, by seeking to understand the businesses' context and perspective, Empathy would be in a much better position to design content and tools to resonate with businesses and genuinely suit their needs.

Finally, Empathy referenced previous work for the client, which included ethnography for and subsequent design of a successful and high-profile tool that helped small business employers to create plain English, legally-binding employment agreements for their workers.

This was a major moment for the project team. Empathy was asking BG to step away from the prevailing approach to productivity improvement adopted by wider government. Empathy was also asking the BG project champion to set aside his much loved academic theories about productivity improvement, learned during his MBA.

Because of Empathy's seven-year history with BG and previous delivery of valuable ethnographic research, the client put their trust in Empathy's recommendation. The client accepted Empathy's focus and approach and set a budget.

But the Empathy team was nervous. Given the strong macro forces encountered by small businesses in New Zealand, was there really anything that we could do to help small businesses beyond what the client had originally intended? If Empathy didn't find anything useful in their ethnographic study, BG would have spent time and money only to find themselves back at their original, untested ideas for interventions. Further, they would lose credibility with wider government.

RESEARCH METHODOLOGY

Decision Crossroads

BG set a budget for the research and recommendations. The budget was not large. That, combined with the prevailing focus on macro forces, brought forth a number of decision crossroads for Empathy. Most notably:

1. Should the research involve a larger number of businesses, or focus on fewer businesses?
2. Should the research involve only the small business owners and operators, or also the workers?
3. Should the research specifically seek to identify macro forces and mitigations at play at the business level, or politely ignore the prevailing thinking to take a genuinely fresh look?

Deep or Wide

Should the research involve a larger number of businesses, or focus on fewer businesses?

With a limited budget, researchers often face this decision crossroad. The chosen path is often influenced by what is best for the quality of the research, and what is going to be most impactful for those who must accept the research outcomes.

Empathy knew that the wider government stakeholders of this research already felt tentative about the approach. Further, big data tends to influence those stakeholders more than ethnographic research. Government officials are often criticised for their decisions, and numbers help to give strength of evidence and foster courage of conviction.

Those considerations pointed Empathy towards working with more participants. Reporting that Empathy researched 30 businesses would make the findings more compelling than reporting that they researched five.

Also relevant was the need to consider representation of different business characteristics. Geographic location, industry type, number of employees and business entity

type might all be factors influencing productivity. Empathy would need to involve more businesses to represent each of those characteristics.

On the flip side, shallow research across many companies would not be quality research, and could easily and fairly be discredited. Empathy knew that they would need more than an hour with each business to gain any sort of contextual understanding. They wanted to understand the business from more than one point of view — using more than one research technique, and /or seeing the business through the eyes of more than one person.

Empathy also realised that they could narrow the distribution of businesses. They decided that, while rural businesses might have different behaviours and mindsets around productivity, the vast majority of small businesses are in urban centres. Further, earlier ethnographic research suggested that small businesses do not differ markedly between different urban centres. Although that research did not look specifically at productivity differences, Empathy and the client decided that urban spread was not critical. Finally, the team decided the businesses' legal profile was not likely to affect productivity in New Zealand.

The two characteristics that seemed most important to capture were number of employees and industry. Given the budget, Empathy would not be able to draw conclusions about different businesses in industries or with different numbers of employees. For example, Empathy would not be able to determine which industry or team size macro-level forces impacted the most, or which were most likely to employ successful strategies. But including a mix of industries and team sizes seemed a sensible way of mitigating criticism that the findings were not indicative of all small businesses.

As always, Empathy considered what was going to lead to the best quality research, and what was going to increase the likelihood of acceptance. Although a larger number of participants would increase the findings' credibility, each participant business would be engaged superficially. Empathy deemed the negative impact on research quality too great. Besides, fundamentally Empathy is opposed to taking a pseudo-quantitative approach. Qualitative ethnography should stand on its own research merits, not make out like it is providing statistically significant data.

They opted for deeper engagements with a five participant businesses, and ensured a mix of industries and team sizes.

Owners and/or Workers

Should the research involve only the small business owners and operators, or also the workers?

Empathy knew that BG exists to support and influence small business owners and operators. Further, wider government believed that owners and operators are in the key position to push and pull productivity levers. In that way, it might seem better to focus limited field time on owners and operators, as that is where government believed it could have the most impact.

On the other hand, only looking at the bosses in an organisation leads to seeing the productivity of the business from only one angle. The workers may have a different view of productivity — different mindset, different behaviours, different motivations — and that different perspective might lessen the impact of the owners' or operators' approach.

Empathy's view was that, in order to create appropriate interventions, they needed to understand the topic of productivity in a small business from different viewpoints within the business. By understanding productivity from the employers' and the workers' points of view, Empathy could see small business productivity more holistically and more genuinely. Empathy chose to involve both the owners /operators and the workers of the participating small businesses.

Ignore or Observe Macro Forces

Should the research specifically seek to identify macro forces and mitigations at play at the business level, or politely ignore the prevailing thinking to take a genuinely fresh look?

It was clear to Empathy that wider government believed that addressing macro-level forces was critical in a small businesses' productivity. The suggestion from wider government and BG was that macro-level causes of productivity could be identified at a business level, and corresponding business-level interventions created.

In an early project document outlining the "current view of relevant research and professional literature," BG had highlighted some areas of productivity that Empathy might like to observe in the field, based on macro-level forces.

The knowledge shared in this document will enable Empathy's field observations to be associated to the relevant firm level and macro problems. If we can categorise the observations like this, it will be beneficial, as the solutions to address macro problems are well documented. Ideally, these collective understandings will help BG to enable businesses to adopt more productive practices.

However, later in that document, BG was careful to note:

If some of these questions don't align with the project brief, please don't change your approach to this project significantly based on the questions below. Again, they are just a way for BG to illustrate current knowledge, and lack of, we don't expect field findings to cover all these questions specifically.

Further, Empathy and BG had subsequently agreed that Empathy would take an ethnographic approach that provided an understanding of productivity from the small businesses' point of view.

Empathy had agreement in principle to step away from the prevailing approach of wider government and academic theories of productivity. But Empathy also knew that the agreement for this approach was tentative. The client was skeptical that the approach would result in actionable insights, and were proceeding on good faith underpinned by relationship history. Further, Empathy and BG would still have to 'sell' the research findings and intervention recommendations to wider government, who were focused on macro-level forces.

Additionally, Empathy was nervous that, given wider government's prevailing belief that strong macro forces negatively affect small businesses in New Zealand, recommendations might be limited to the kind of interventions associated with macro forces that BG had already imagined. The research team wondered if seeking observations that could be associated directly to macro forces would help to reduce risk of the ethnography surfacing no actionable insights.

On the other hand, the Empathy researchers worried that specifically seeking observations that could be tagged in that way would distract them from gathering information that would enable a true and holistic understanding of productivity in the small business. Worse, it might make them assign more importance to observations than warranted given the businesses' point of view.

In that way, rather than providing a safety net for the research, mindfully seeking instances or absences of actions related to macro forces could negatively impact the research.

Empathy decided to remove the possible safety net, and have faith in the research approach that they had advocated for so strongly. As the Empathy project lead declared at the time, Empathy decided to "trust the power of agenda-less ethnography." If macro forces came up in the field, Empathy captured them. But they didn't go looking for macro forces at play.

Research Activities

In preparing for the field, Empathy tried to understand the field of productivity a little more, before putting that learning to the back of mind. They conducted desk research and spoke with government productivity experts to learn what topic areas to consider when observing and conversing with owners and employees. Empathy also spoke with a government-approved advisor to small businesses to gain another perspective on the context of small business productivity. They wanted to understand what advisors were telling small businesses when it comes to productivity. Are they telling them it is a good thing? How are they communicating benefits? What methods are advisors recommending for productive environments? The advisor also provided the researchers with an understanding of the language used when he spoke about productivity with his small business clients. How was he defining it?

Although Empathy only spoke to one advisor, it helped Empathy frame their research conversations and provided a little more context. Empathy obtained a good indication of what one government-trusted advisor sees in the many businesses he advises. In that way, speaking to the advisor helped the client to feel better about Empathy 'only' engaging with five small businesses.

Empathy conducted field research with five small businesses. The businesses came from different industries — agriculture, production, professional services, retail, and food and beverage — and had between 0 and 20 employees. Within each business, a single researcher conducted multiple activities over the course of a single day.

Observations – One Empathy researcher observed each business for two hours. The observations primarily occurred without any conversation, but included some moments of participation. In a few of the small businesses, Empathy was able to understand processes more fully by being a part of them.

Observations gave Empathy an opportunity to:

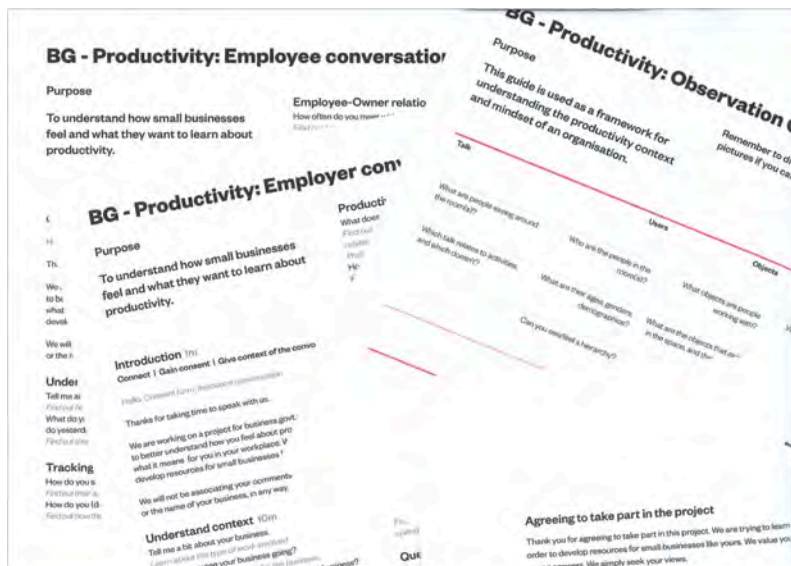
- experience the productivity mindsets of the small business
- witness systems, processes and tools as they relate to productivity, eg those that increase/decrease staff engagement, those that help staff to understand their tasks and schedules, those that add/remove idle time
- observe the interpersonal relationships between co-workers, and between employers and their employees
- pick up on context before delving deep into conversation.

Conversations – One Empathy researcher conducted semi-structured conversations within each business. In total, they conducted 12 conversations with operators and employees. Each conversation lasted about an hour.

Conversations gave Empathy an opportunity to learn about:

- mindsets on productivity
- barriers to productivity
- motivations for productivity
- desires to learn about productivity
- what activities small business owners and employees are doing when they consider themselves to be ‘working on the business’ or ‘being productive’.

Three Empathy researchers undertook the fieldwork. One engaged with one business, two engaged with two small businesses each. Empathy created observation guides and conversation guides to use in the field.



Field guides



A photo from the field.

Field reports

The Empathy lead was prescriptive about what each researcher should include in the field notes and subsequent field reports. In this project, the three researchers varied in background and research experience. The project lead recognised that some researchers might lack structure in their approach. She wanted to create a checklist of things for each researcher to collect, so that each brought the same types of information back from the field and into the analysis phase. Before the fieldwork occurred, she set and communicated the structure of the field reports. In that way, the report structure supported the researchers in the field alongside the observation guide and conversation guides.

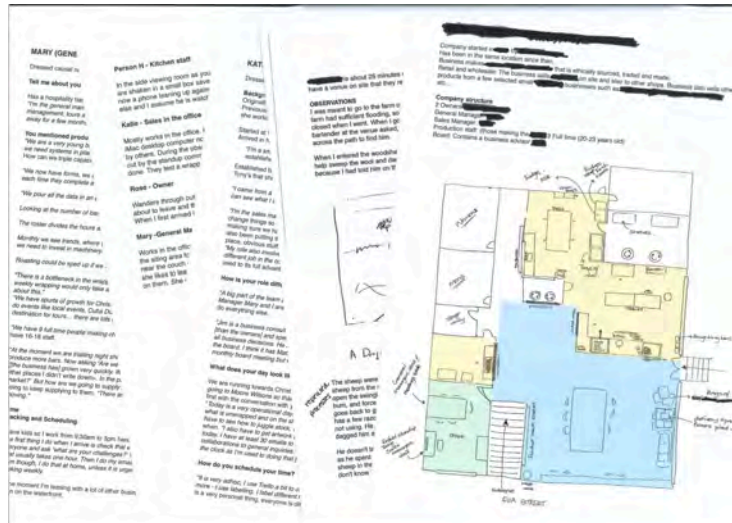
During the fieldwork, each researcher took notes and made drawings. Field notes included:

- chronological shorthand — this happened, then this happened...
- sketches/maps of the environment
- networks/maps of movement
- storyboards of activities
- photos of space.

Later, the researchers turned their notes into field reports. The field report for each business included:

- narrative descriptions of the observation
- diagrams or pictures of the environment from the observation
- collateral material gathered from the business, eg policies, procedures
- whole passages of direct quotes from conversations with those in situ
- additional observation data from conversations—body language, noticed reactions, etc.

Each field report was five to 10 pages long.

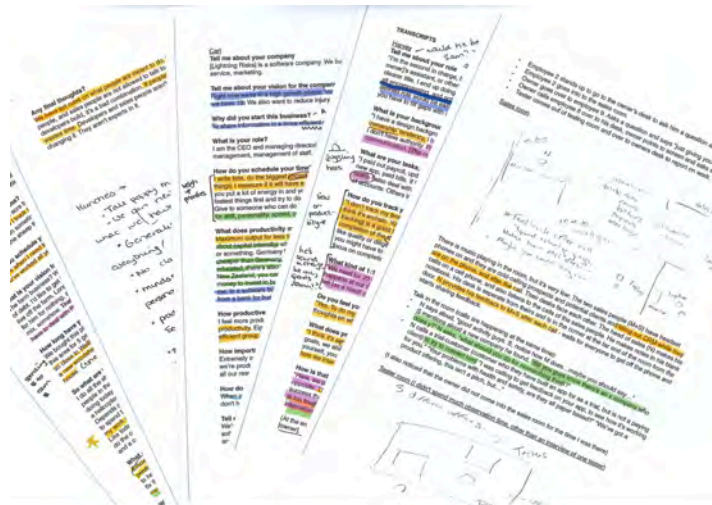


Field reports.

ANALYSIS OF RESEARCH FINDINGS, DEFINITION OF MEANING

Analysis Approach

Each researcher received printed copies of the field reports of each small business. They spent time reading silently, highlighting passages of particular interest in the reports, noting questions for the researcher, and capturing questions and thoughts that arose for analysis.



Highlighted field reports.

The process was leisurely, allowing the researchers to follow thoughts sparked by field reports. The phase lasted three days, with each researcher dedicating significant blocks of time to analysis through that period.

As well as reading the field reports, this solo time meant the researchers were each able to draw some initial thoughts from the combined fieldwork without being influenced by the thinking of others. This is not typical at Empathy, where extroverts prefer to share field notes verbally and immediately bounce thoughts and ideas off each other, forming analysis and conclusions as a group. Even in a mixed introvert/extrovert team, the extroverts' way usually wins out.

The three Empathy researchers then decided to decamp from the Empathy studio. Even though they had blocked out solo working time as they went through the field reports, the studio environment and other conversations proved distracting. They knew they would do better analysis away from the bustle and interruptions of the studio. They set up around the dining table in the home of one team-member.



Home set-up during analysis.

That environment fostered casual conversation about the findings, which in turn, stimulated input and collaboration. The environment also reduced distractions and interruptions.

The researchers began by sharing some of the questions and thoughts that had arisen for each of them during their solo time. The team found it interesting to see which thoughts had arisen for all of them, although those thoughts were not prioritised or given more weight than ones raised by only one researcher.

The researchers devoted several hours to straight discussion. They did not intend to come up with any insights immediately. They wanted to set out time specifically just to move from solo thought to group discussion. They intended this phase of group discussion only to answer questions and to help each individual researcher refine their own thinking through group presentation.

This was helpful in that the researchers had to start explaining themselves, and therefore clarify their own thoughts, before coming up with insights and conclusions together. As this discussion was occurring, each individual researcher continued taking their own notes about questions arising and conclusions drawn. In that way, the researchers let the conversation evolve, and revisited points they wished to explore further.

Finally, it was time to translate individual thoughts into patterns and initial insights. This also took the form of discussion. However, the goal during this session was to expand their thinking into as many patterns and initial insights as the team could develop. Next, they focused on the main patterns and insights. They put those aside after completing the focus.

Research Findings

In light of the original focus of BG and wider government, the findings were interesting. Specific findings are confidential and the intellectual property of BG. However, we discuss what Empathy found relating to the prevailing view of wider government, and how these findings shifted BG's perspective.

Empathy were able to explain how small businesses defined productivity. Wider government suggests that productivity is how efficiently an organisation can turn its inputs, such as labour and capital, into outputs in the form of goods and services. That is, the amount of output (products, services) a business can produce given its resources. In contrast, small businesses define productivity simply as the amount of work they can do. One small business owner explained that he feels productive "if I can get through my to-do list."

The amount of resource spent to create the output is a key feature of the government's definition. It is notably absent in small businesses' point of view. Small businesses considered output, but not in comparison to input. This wasn't simply about discounting family or personal labour. In fact, the small business did not discount labour, or no more than in a larger business. Rather, Empathy found this was a fundamental difference in the definition of productivity. Government thinks of rates, small businesses think of amounts.

Empathy showed how the small businesses approached productivity — by both their own and wider government's definition. Empathy showed what approaches and actions they took, when and why. Importantly, very few of these actions related to the macro forces BG so strongly noted. Rather, actions were grounded in low-level everyday activities that ensure business survival, such as fulfilling an order on time given the people working on the shift.

Empathy found that it was not macro forces standing in the way of small business productivity. Rather, owner / operator practices are responsible. The owner / operator prioritised speed over efficiency and immediate results over long-term benefits. Put another way, urgency won over importance.

That focus on urgent tasks over important tasks perhaps is not surprising, given that small business owners / operators are often busy and understaffed, and therefore reactive. Further, many small business owners have the skills and experience to do the job. They find

it easier to just do it themselves, rather than to train or explain it to someone else, and are happier with the quality and outcome. This finding was important given the government's initial focus on macro forces. It meant small businesses could significantly improve their productivity through improvements in basic management, leadership, workforce planning and processes unrelated to macro forces.

Empathy did find some macro forces at play in the small businesses they researched. But small business did not experience these forces in the way BG imagined. Small businesses were aware of some macro forces. However, either they did not perceive those forces as a problem, or did not believe they could do anything about them.

For example, government views a lack of competition as a barrier to improving productivity. They want more competition and behaviour that is more competitive. However, the small businesses Empathy researched like that they have few direct competitors, and enjoy thinking of their indirect competitors as friends with whom they can bond and learn. Some also think of direct competitors as collaborators or at least friends. As one owner said: "We're a community. It's good to talk to people in your industry. We're competitors, but we don't see it that way." Some owners seemed proud of this situation, as they believe it reduces stress for themselves and their employees.

This way of seeing competitors is not necessarily wrong or counter to business success. Empathy knew from previous work with other areas of government that many recognise the value of strategic collaborations within industries and within supply chains. However, for this project Empathy's clients and stakeholders saw competition as a force that spurs businesses to do better with the resources they have. These stakeholders lamented the lack of competition, saw it as productivity reducing, and wanted to know what small businesses were doing about it. Finding that small businesses are unconcerned by the lack of direct competition, and co-exist with indirect competition, meant that BG did not have a ripe audience for wider government's intended messages.

Perhaps most importantly, Empathy found that small businesses were not particularly interested in increasing productivity — at least, not in the way the government hoped. The government wants businesses to increase their output in a way that minimises input. Ultimately, government wants increased productivity to lead to increased GDP (gross domestic product). They want the country to earn more from the resources used, so the boosted economy can drive better social outcomes. However, the small businesses motivation is not to increase output, but rather to reduce input. As one owner said: "I don't believe in growth for growth's sake. There's an expectation that bigger is better, but I'm not 100% driven by money."

In fact, in response to Empathy researchers' direct questions, some small business owners / operators stated that they did not want to increase productivity. They thought increasing productivity ran counter to their personal values of ensuring work-life balance and a stress-free work environment. To them, being productive means working your employees too hard. One owner noted:

I've never been a manager to crack the whip. I want the leisurely aspect [of the job] to be something they enjoy so they give me loyalty and are happier towards customers. The idea of being hyper-efficient is an enigma to me in some ways. I could do many things different, but can't be bothered. I won't stick a duster in someone's hands.

These findings show that small business and government do not agree on the meaning of productivity. For government, productivity has positive connotations; it is about efficiency. For small businesses, it has negative connotations; it is about driving people harder to get more.

These learnings were important for BG and wider government to know. Rather than small businesses being hungry to increase productivity, government did not have a willing collaborator in their mission. Rather than small businesses not recognising macro forces working against them, small businesses welcome some of them like limited competition. Rather than being excited about finding ways to mitigate the effects of macro forces government perceives as negative, small businesses do not see the point of implementing changes given more pressing day-to-day issues. As one small business owner said during the research: “As a small shop in New Zealand, it’s not worth it trying to pretend you’re Amazon.”

Once again, Empathy found itself working to shift their client’s perspective. This time, about what productivity means to small businesses in New Zealand, and why that perspective is important. Empathy needed to consider the best way to communicate that story to their clients.

Decision Crossroad: Mindsets

Popularised by Carol Dweck (2006), 'mindsets' refer to the established set of attitudes and beliefs someone holds. Empathy had previously successfully delivered mindsets to BG as part of design research deliverables. Because of that success, BG requested mindsets as an output of the productivity research. Some of the Empathy team felt uneasy about the creation of mindsets on this project. One team-member suggested that mindsets often give the impression of a total set of perspectives. That is, the mindsets outlined are all of the mindsets in the population, or at least the prevailing ones. The team member argued that Empathy should only give that impression if they were confident in its truth-value.

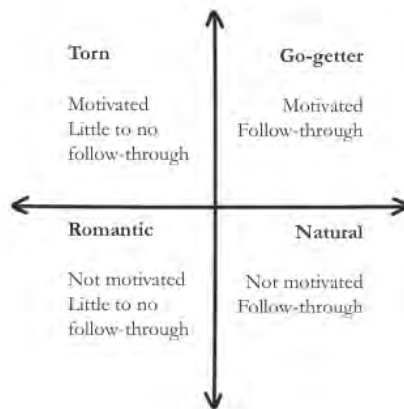
As predominantly qualitative researchers, Empathy seldom seek to understand population variation. But their research findings are often taken to be generally applicable to the population to some degree of scale, largely because they usually involve larger number of participants, typically 20 to 60. In such cases, the project team member had more confidence that the mindsets they observed were representative of the population.

On this project, Empathy ‘only’ engaged with five small businesses. Was it right to suggest a set of mindsets exist across New Zealand small businesses as a result? Was it even possible to identify mindsets from such a small sample?

In the project, this moment was less of a decision crossroad than it perhaps should have been. BG asked for mindsets. Empathy felt uneasy but entertained the idea. As they worked through the analysis and definition phase, Empathy began to see some useful mindsets emerge. By the end, they felt comfortable with the idea of pulling out summary mindsets. And so, that is what they delivered.

Empathy took an inductive reasoning approach. They did this by looking at their data set and determining similarities and differences throughout. They came up with qualities and key language that varied between the businesses and began to group them. Four mindsets emerged, sitting on a two-by-two. That is, the interaction of two axis, giving rise to four quadrants. Naming each mindset was the final step. Naming at the end of the process was

important, as the qualities of the mindsets needed to become apparent before their classification. It allowed the team to consider what the mindset was before labelling the mindset or those with the mindset. As consultants, Empathy recognises the value of analogies to underpin mindsets. In this case, Empathy referenced the types of students many remember from high school to label the mindsets.



Sharing Work-in-Progress with the Client

Empathy always shares initial findings and meaning with clients. They do so at a point when the insights are becoming clear and the direction of recommendations are forming. Sharing at this point allows clients to learn from the research, ask questions that researchers can then reflect on, and provide input into recommendations to ensure they suit the clients’ organisation and goals.

For the researchers, sharing with the client felt like a big moment. Empathy knew BG trusted them to decide a research approach, but that they were also skeptical of a move away from a focus on macro forces.

Empathy shared some of their work in progress in their typical low-fidelity way, with a Post-it note presentation in their studio. The BG project champion attended along with one colleague.

Empathy decided to tackle the different definitions of productivity up-front, followed by a few less confrontational findings. They then introduced the small business participants’ feelings about the macro forces as highlighted by wider government. Finally, Empathy introduced the mindsets and provided actionable insights. Throughout, Empathy quoted participants from the fieldwork.

Through the informal presentation, a few tense moments unfolded where the BG project champion probed small businesses’ definition of productivity and thoughts about macro forces. He was surprised by small businesses definition of productivity, and it took some discussion for him to understand it. Similarly, he did not immediately grasp how small business could think so differently from government about macro forces.

However, the mindsets won him over. The analogy was easy to grasp, and helped to outline the ways small businesses think about productivity. The mindsets steered the client

away from a discussion of macro forces, and helped him to shift his perspective from the way wider government and business academia think about productivity. Interestingly, once the client had grasped the mindsets, he seemed far more able to understand and take on board the individual findings. They anchored his thinking.

In that way, the mindsets proved critical in the success of the project. Because the mindsets captured the varying degrees to which small businesses are attracted to increased productivity, from anti to pro but unequipped, the mindsets made it clear that no small businesses thought about productivity in the way that wider government hoped and assumed. The mindsets made it clear that the macro forces that wider government had focused on, which was entirely appropriate when working on the frameworks and policies that government can influence, did not transfer to interventions implemented by small businesses.

RECOMMENDATIONS FOR THE CREATION OF TOOLS AND RESOURCES

Buoyed on by the success of the work-in-progress presentation and discussion, Empathy progressed to establish recommendations for the BG product.

BG's original intention was to raise awareness of macro level forces, and to suggest meso-level ways to overcome those forces. That is, policies, procedures, rules and guidelines that directly relate to macro level forces. Empathy's research showed that raising awareness of the macro forces would not significantly change small business owners' mindset or behaviours. Further, Empathy's research showed that the meso-level interventions BG proposed were too sophisticated for the majority of small businesses. For example, targeting employees from a global innovation frontier in medicine, such as Boston USA, was not an effect approach to new technology adoption.

Instead, Empathy suggested more accessible meso-level mitigations and some micro-level aids, not directly related to macro forces. In general, these related to:

- Shifting misconceptions about productivity, by showing small business that productivity practices aren't counter to human values, but rather a means to realise them — 'be more efficient so you *don't* work people so hard'.
- Engaging owners looking for quick-fix reactive solutions to issues where they have been inefficient in the past, and guiding them to a more proactive approach — eg ensuring a new member of staff understands standard operating procedures before being left to get on with the job.
- Supporting those who are interested in productivity but are not yet knowledgeable or equipped. Providing guidance, best practices, tools and hands-on activities in key areas that impact productivity regardless of their link to macro forces. Being their guide as they explore and hone practices that work.

Specific recommendations included an online assessment, online course, worksheets, templates, and educational content. Empathy also made clear recommendations about language and tone to use when talking to small businesses about productivity. For example, taking into account that productivity is a dirty word for many small businesses.

EPILOGUE: PROJECT OUTCOMES

Product Developments

Since Empathy developed the outputs of the research, Empathy has supported BG to:

- share and engage wider government in the findings and their implications
- prioritise which area of productivity to tackle first (management and leadership)
- develop some tools that help small business owners self-assess their management and leadership practice
- create worksheets that take small business owners through tasks related to management and leadership
- create content that helps to engage small business owners in management and leadership practises that improve staff happiness and business outcomes
- develop tools and content for a second productivity topic — strategic finance.

BG is investing a significant portion of its budget into resources in productivity tools and content.

A Changed Perspective

Empathy's ethnographic approach helped BG to understand that small businesses define productivity differently than wider government. Further, the research highlighted that some small business owners are actively against increasing productivity. These two things were mind-blowing to some in wider government, and completely shifted their perspective.

BG realised they had to start the conversation about productivity with small businesses differently. They first had to get many engaged with and positive about the idea of increasing productivity. That would involve gently changing the small business definition of productivity, amongst other things. They also had an opportunity to introduce interventions that actually help productivity obliquely, by coupling them with things the small business wants to tackle. That is, by hiding the medicine in a large spoonful of honey.

The research helped wider government to realise that the macro-level focus that is so appropriate for government cannot be directly translated to interventions for small businesses. Wider government realised that they could do more at the small business level, rather than just at the macro level. While some of the findings left them feeling dismayed and deflated, they were pleased to learn of opportunities for BG to help.

Strengthened Positions

Empathy's work helped their client to strengthen their position as a team who knows a lot about a critical group within New Zealand's economy — small businesses. As BG's base of knowledge about their core customer grows, they become more of a go-to source within government. This project, where they showed that a different understanding was required and where the results really shifted people's perspectives, further cemented their role as 'the knowers of small businesses'. Similarly, results enhanced the profile of BG as a creator of resources and interventions that respond so well to latent needs and contexts of small businesses. In the eyes of both BG and wider government, the results strengthened Empathy's position in the same ways. Finally, and perhaps most importantly, BG is no

longer skeptical of Empathy's narrow-but-deep research approach. Whereas previously they questioned small sample sizes, Empathy encountered no negative reaction to the five-business sample used in the productivity research. The test will come when a new research project is scoped.

REFLECTIONS FOR EMPATHY

The Use of Mindsets

As mentioned earlier, Empathy initially felt uneasy about the creation of mindsets from the field research, but delivered them in the end. There was no critical analysis of whether it was right to concoct mindsets from five engagements. The researchers were swept along. In discussing this case study, this is one of the areas where Empathy wonder if they did the right thing.

The client really latched onto and placed faith in the mindsets. This was probably partly because of the catchy nature of the mindsets delivered, mindsets delivered on an earlier project that lead to an incredibly successful outcome, the strength of relationship history, and the research confidence and story-telling prowess of the current project team.

In that way, the use of mindsets on this project helped the client to grasp the findings and make the necessary shift in perspective. Further, they were undoubtedly useful in the shaping of recommendations, tools and resources. In fact, all of the subsequent effort has been driven by the mindsets. The project lead and champion at BG has repeatedly expressed appreciation of the mindsets. He even sent the Empathy lead an email seven months after delivery, saying he had been re-reading the delivered report and using the mindsets and was reminded that "it's all so good!"

But were the mindsets valid as mindsets, or were they simply case studies or participant profiles? Each of the mindsets represented one business from the fieldwork, with the fifth business being a mid-ground between two. What if the five businesses engaged with, or even two of them, are extreme anomalies in the population? That would put all of the subsequent effort — tool design, content design, influencing of intervention — into question.

Empathy are comforted by the fact that this productivity research is just one of their many ethnographies into New Zealand small businesses over the last seven years. In that way, the observations are based in a much larger base of context.

Empathy is likely to reflect further on whether mindsets suggest broad population representation, and if so, when the use of mindsets is valid. Empathy find mindsets a very good tool for client delivery, and for the design of products, services, policies and experiences. They will continue to use them where appropriate.

A Cultural Basis

Empathy provided 10 key findings from the research, almost pitched as insights. They also provided four mindsets. From there, they moved straight into recommendations for interventions, tools and resources.

In documentation and initial delivery presentations, they did not discuss the cultural basis of those findings or mindsets. However, the culture of New Zealand businesses makes a lot of the findings almost obvious in hindsight. As Empathy presented the findings, they

often found themselves saying things like: “That makes sense, given the way New Zealanders...”

Empathy wonders if it would have been good to discuss cultural underpinnings of the findings as part of their delivery. These underpinnings were discussed within the team during the analysis and definition phase, in an offhand way. But the team didn’t deeply discuss them or consciously pull them through into the delivery of the findings.

It is interesting to ponder whether the cultural basis of the findings might have made Empathy’s results more impactful for wider government, particularly in the long term. Or, whether it would have weakened the results, as people often don’t feel that their own culture is worth narrating.

In some ways, the inclusion of cultural basis would have crowded the story in the document, and might have distracted from the important findings and mindsets.

It is also worth noting that the project budget probably didn’t allow a full exploration or description of cultural underpinnings alongside the creation of mindsets.

Ethnographic Approach

As Empathy established the research approach, they were faced with a few decision crossroads. How do they feel about those decisions now? Has this project influenced the way they’ll proceed in the future?

Research focus – Empathy argued strongly for an ethnographic approach that enabled an understanding of productivity from the small businesses’ point of view. They did not want to focus on macro-level influences.

Empathy would do this again. Hopefully always. It isn’t always easy to keep the widest possible research focus, especially when non-researching clients want to collaborate on your research brief. But Empathy believe this is worth fighting for, and will nearly always be the right thing to do for the project.

Deep or wide – Empathy opted to go narrow and deep. That is, to have deeper engagements with a smaller number of participant businesses.

Considering the project in hindsight, Empathy’s project lead commented: “I personally think it’s always right. But that’s just my style.” In that way, she always favours deep over wide and will continue to after the success of this project.

Owners and/or workers – Empathy chose to involve both the owners/operators and the workers of the participating small businesses, even though the client was focused on owners/operators.

Empathy would take this position again on this project, and on future projects. They always favour understanding a target group’s issue from the angle of all of those who contribute to the issue. It also helps to provide another lens to the target group’s handling of that issue.

Ignore or observe macro forces – Empathy decided to not specifically seek to observe macro forces at play, but to capture observations related to macro forces as they arose organically in the field.

Empathy would make this decision again on this project, and will advocate the approach in future projects. Removing the narrow focus reduces the risk of artificial results, and of missing something important in the wider context. But noting specific topics or forces at play as they arise does not get in the way of the bigger research focus.

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MaiLynn Stormon-Trinh MaiLynn is a writer and design researcher who balances imagination with perfectionism to explore and refine ideas. She draws on her aptitude and love for fieldwork and research to tell true stories well. MaiLynn's work in communications for non-profits on four continents has helped hone a highly engaging and empathetic writing style.

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Case Studies 2 – Narrative and Perspective Shifts

The Inhuman Condition: How Research Unlocked New Perspectives on Psoriasis and Began to Change how it's Understood and Treated

SARAH KELLEHER

Truth Consulting

This case study highlights the value of exploring the reality of having and treating psoriasis. Its aim is uncovering why it is that, despite treatments being available that offer transformative results, people with psoriasis can continue to live in isolation and with feelings of shame. If clear skin alone isn't enough, what is it that can help create a sense of well-being? Even undertaking a piece of work like this represented a significant step forward for the pharmaceutical industry where, historically, investing in this kind of deep patient insight work hasn't been common and where getting buy-in to the outputs is far from certain. How can sight lines be created and developed, particularly from physicians to patients? Explored in this case study are not only the ethnographic and other methodologies used, but also: some of the challenges in bringing together this encompassing piece of work; the strategies and efforts made to ensure that core audiences engaged with the research; how minds were changed inside the client's business, established ways of working challenged to appreciate the value of human-centred insight; and, the real world impact of the work.

Keywords: Ethnographic Case Study, Culture, Narrative Shifts, Co-creation, Prototyping, Design Thinking, Behavior Change, Health, Psoriasis

INTRODUCTION

Grief, stress, overwork, crumbling relationships. These and many more of the lowest points in people's lives can act as triggers for psoriasis, a skin condition that can produce agonizing, scaly skin across people's entire bodies. For many patients, the experience is one of feeling at war with their own bodies, with the result that they have a sense of alienation from the self and from the world, from the physical and emotional touch of people and relationships.

After diagnosis, there comes for many patients, as well as the battle for treatment, a complete re-evaluation of themselves – their ambitions, their lifestyle, their relationships, their self-image. Many patients feel unable to live the life they want, finding it difficult to sustain a career and their social and romantic relationships. Mental health problems are common.

In the last decade, though, a new class of drugs – biologics – have become available. These have transformed the treatment of physical symptoms for many patients. For the first time, healthcare professionals have an option available to them that can, in many cases, rapidly and completely clear up a patient's skin.

For patients, many who've experienced decades of suffering, a new treatment challenges their entire relationship with the condition. Clear skin alone is not enough - it leaves their need for emotional support unaddressed. They need not just medication, but to build a sense of self-belief and empowerment, so they are equipped to embrace their condition and its ups

and downs. For healthcare professionals, many of whom have traditionally viewed psoriasis as an unfixable problem, these new treatments demand they rethink their entire practice.

Underpinning these challenges is the question of emotional, psychological and social support. How do dermatologists find the resources and expertise to help address patients' psychological well-being, to help them embrace the potential of the treatment and face-up to the potential pitfalls? How does one help people with psoriasis embrace their condition and begin a new life full of possibilities? This is deep emotional territory. Unless one understands all the many facets of the condition and sees it in the round, how does one communicate with these patients? What does one say to them?

Addressing patients' psychological and social wellbeing is a particular challenge for pharmaceutical companies because a traditional narrative in healthcare – protection – is beginning to lose its hold culturally. How does one frame the treatment for a world where people are no longer prepared to live in fear of their condition, its symptoms and its social and emotional impact? How does one support patients and help them remove their protective mask and show their real self to the world? How does one help them on a journey to self-acceptance and flourishing with their condition?

What is that narrative? This is the task this research set out to answer...

THE CLIENT CONTEXT

A major pharmaceutical company, referred to here as Pharma Living Well (PLW), wanted to better understand its customers: 'moderate to severe psoriasis patients and health care professionals (HCPs) who prescribe or influence the prescribing of biologics'. Truth Consulting, a global strategic consultancy, specializing in innovation and branding, won the contract to understand the unmet needs of patients and HCPs in defining a digital strategy to support marketing communication and what solutions should be created. *The Digital Work Stream – Goal Statement* articulates the goal:

“To have a deep understanding of the informational needs of our target customers and be in a position to create findable, relevant and tailored digital content. It's easy to go straight to solutions from what we think our customers would like, we would like to inform this process by “knowing what they want and expect from us” and by several means not just asking them, but observing what they do and co-creating solutions. What we learn will inform global solutions, regional solutions, affiliate solutions, medical education and utilisation of existing assets”. *The Digital Work Stream – Goal Statement*

Alongside its key PLW client contact, who had a regional role in the insights department, Truth Consulting soon realized that the underlying focus of this project was much bigger than a digital strategy. It was clear that this work had the potential to support new strategic foundations that PLW has adopted in its work in psoriasis – and possibly in other therapy areas too. The scope of the project grew beyond the original digital focus as shown in Table 1, with subsequent phases signed-off to explore in detail the emotional journey of people with psoriasis – and those that treat them. The Client Project Lead articulates this ambition:

“There was an opportunity to redefine expectations. We redefined our objective to create a bold ambition for the brand. Just as PASI75 (level of skin clearance) is not enough, information isn’t enough. There is a huge, unconquered territory for brands who see not just patients, but people and who can supply emotional support and understanding. If we see ourselves as enablers supporting people with psoriasis, people who take a holistic view of people’s lives, loves, ambitions and fears, then we can be the ones to fill that unmet need”. *Client project lead*

Table 1. The three phases of the project

Phase 1 DISCOVER <i>Foundational insights, strategic direction & solution ideation</i>	Phase 2 DEFINE <i>Prototype development in co-creating and optimizing solutions & shaping final strategy</i>	Phase 3 DELIVER <i>Development and rollout of the final solutions and strategic direction across markets</i>
<p>Aug 15 – Dec 15</p>	<p>Jan 16 – July 16</p>	<p>July 16 – Ongoing</p>
<p>Markets: Germany, UK & Canada</p>	<p>Markets: Germany, UK, Canada & Spain</p>	<p>Markets: Regional / global focus</p>
<p>Research</p> <ul style="list-style-type: none"> • Cultural & social discourse analysis • In-home ethnographies • HCP depth-interviews • Co-creation online community with patients/HCPs • Co-creation workshop with patients/HCPs and clients 	<p>Research</p> <ul style="list-style-type: none"> • Prototype workshop and development • Key opinion leaders (KOLs) and patient influencer interviews • In-home ethnographies • HCP depth interviews • HCP & patient roundtable discussions • International workshop patients/HCPs/KOLs and clients 	<p>Not a requirement for this stage by Truth – patients, HCPs, KOLs continue to be involved in development of solutions through advisory boards and workshops undertaken by client, development agencies and patient advocacy group partnerships</p>
<p>Internal engagement</p> <ul style="list-style-type: none"> • Rich ethnographic storytelling • Series of workshops at key stages • Magazine style report 	<p>Internal engagement</p> <ul style="list-style-type: none"> • Rich ethnographic storytelling • Design thinking / prototyping to build to think • Behavioral economics heuristics framework for behavior change 	<p>Internal engagement</p> <ul style="list-style-type: none"> • Insight immersion workshops and toolkit • Briefing development agencies • Animation bringing to life the project
<p>Output</p> <ul style="list-style-type: none"> • Strategic plan and roadmap for the brand • 50+ solution ideas prioritized to take forward into phase 2 	<p>Output</p> <ul style="list-style-type: none"> • 7-8 prototype solutions • Guidelines and manifesto for strategic delivery & solution development 	<p>Output</p> <ul style="list-style-type: none"> • Development of solutions (by appointed agencies) • Partnership with Global Patient Advocacy Group • Publication of key findings to impact standard of care

Table 1: Having completed phase 1, Truth pitched and won phase 2 to take the insights and solution ideas from phase I into the creation of prototypes and final solutions. Phase 3 involves an ongoing consultancy role to support the delivery and immersion of the wider business and partner agencies in the insights and findings as the strategic direction and solutions are rolled out across markets. Note: a quantitative element to the project was undertaken in phase 2 by another agency to evaluate and validate the unmet needs of patients and HCPs.

PLW assembled a cross-functional team which included: Truth's key client contact, insight team members in each of the key markets and representatives based across the region and from different parts of the business: medical, marketing/brand and digital. The core team played a key role in the success of the project, ensuring buy-in and engagement internally and, crucially, by helping navigate the many challenges the project faced. Some of these challenges included:

- Methodological questions – PLW, and pharmaceuticals generally, have established ways of working – ways of working that rarely accommodated elements of the proposed approach like in-home ethnographies, and cultural and social discourse analysis.
- Multiple markets – the project had to align the needs of numerous national markets regionally and then align those needs and outcomes with PLW's global activities.
- Compliance – the project team had to work extensively with PLW's legal team to achieve sign-off for elements of the research that would previously have considered to present unacceptable business risks – like bringing together HCPs and patients in the same forum.

TRY, TRY AGAIN

The recruitment process held many challenges, not least the long lead times needed to account for PLW's internal processes and implement the relevant country-by-country legal and ethical pharma guidelines.

Truth worked with local market partner agencies in each of country, spending considerable time shaping the recruitment screeners and briefing the agencies to ensure all elements of the recruitment process were water tight. In each phase, a number of participants - patients, HCPs, thought leaders – were invited to take part in more than one element of the research, allowing them to come on the journey adding to the richness of the insight gathered.

Thought leaders played a key role in the project in adding their expertise as specialists and key opinion leaders. They included specialist dermatologists and nurses, psychodermatologists, patient influencers involved with patient advocacy groups – all recognized as leading in their field. With a set of criteria agreed with the PLW, Truth undertook desk research to identify the thought leaders and used snowballing sampling approach, drawing on thought leaders to recommend other thought leaders that they felt would be interested in taking part in the research.

There was a real sense of achievement across the Truth consulting team and the PLW core team when the teams met recruitment goals along the way. In particular, getting approvals was a challenge that often came right down to the wire. In places, the 'try, try again' attitude of the project team (Truth and client side) was called upon with creative solutions and certain compromises needed. For example, we intended to involve patients, healthcare professionals and thought leaders in the first co-creation workshop clients face-to-face. In the end, we had to hold virtual breakout sessions instead as part of the workshop. It was still judged a success. As a senior business leader articulates, it provided the first collective recognition of the key insight that clear skin alone isn't enough:

“Understanding that clear skin and medication isn’t enough was foundational in the way we started to approach our role in supporting people with psoriasis. This key moment of realization came when listening to patients share their stories and how even when they achieve clear skin through their treatment that the fear of psoriasis and the impact of the emotional burden is always there for them.” *Senior business leader*

FROM INSIGHT TO POWERFUL REAL WORLD IMPACT

Our collaborative approach aimed to capture and share first-hand people’s stories. Truth Consulting was clear about what we would need to achieve the ambition of creating real world impact.

We wanted to enable storytelling and help everyone to directly experience the stories of others. We wanted to provide rich, balanced insight from immersion into conceptual spaces which people are not required to, or even able to, fully articulate. We wanted to look deeper to understand the connections that make us who we are. We wanted to help our client move beyond the corporate healthcare worldview and embrace the reality of patients’ lives.

Drug companies have treatments for psoriasis, but the emphasis is heavily on tackling physical symptoms. No one in pharma – PLW or beyond – was talking about what’s happening psychologically – and how that affects a patient’s relationship with his or her social world. A key realization, then – and one that underpinned the whole project – was that, “You can’t hope to understand psoriasis unless you look beyond the ‘patient’ – at the whole person.” To do this meant new depths of psychological and cultural insight. A transformative approach was needed to make sense of it all. One that explored the patient journey – physically and emotionally – and that looked to understand the daily realities of living with psoriasis.

Truth proposed a collaborative, immersive approach that would blend a wide range of techniques. The approach would explore broader cultural discourses around body image, bringing together doctors, patients and thought leaders (leading dermatologists and psychodermatologists, specialist nurses, advocacy group and patient influencers) and client representatives with the aim of helping all sides to learn from one another, to step into each other’s shoes and to commit to building a better future together. The multiple approaches used (see below) endorsed different ways of thinking to support patients with ground breaking services that address emotional suffering, and to change how patients and doctors perceive their roles. The mix of approaches that were blended together created productive tensions and alliances that allowed for collaborative sense-making conversations amongst the Truth project team and the client team. These included:

- In-home ethnographies to explore the realities of living with psoriasis – these took place in phases one and two, allowing not just insight gathering in the context of patients’ homes but also prototyping to take place in that same context, where the realities of living with psoriasis were most present.
- Cultural intelligence, like big data and semiotics, to smash ‘corporate world’ ‘unreal’ thinking. This highlighted social understanding and shifts in how culture framed skin/skin related diseases and wellness. How people talked about their condition in social spaces, i.e. the language, tone of voice, context, etc.
- Roundtable debate forums to reveal patient worlds hidden from clinical practice.

- A behavioral economics framework drawing out heuristics for behavior change.
- Quantitative evaluation and validation of unmet needs across patients and HCPs (undertaken by a different agency).
- Co-creation and design thinking approach in creating prototypes with designers, patients, doctors, and thought leaders to create useable, meaningful services.

In scope, this project was a huge undertaking. It covered four markets – Germany, Spain, Canada and UK. It incorporated 1000s of cultural conversations online; 72 hours of in-home ethnographies with patients; 54 hours of healthcare professionals (HCPs) interviews; 24 hours of thought leaders and patient influencers interviews; 24 hours of interactive debate between patients and dermatologists; and, a 2-week online co-creation community with 60 patients and 45 HCPs. Finally, it included 2 days of co-creation workshops with clients, patients, patient influencers, healthcare professionals and thought leaders.

The result has been an unprecedented depth of understanding into what it means to live with psoriasis, the barriers to seeking and receiving effective treatments, and how healthcare professionals and pharmaceutical companies can better support people with the condition. This project has generated a range of solutions designed with patients, to improve the support they receive; several published medical papers, and a piece in the Economist.

An industry-first partnership between PLW and the global patient association for people with psoriasis was a direct result of the project. This partnership, which shows a remarkable degree of pharma-patient group engagement, has been founded to ensure the research findings become embedded in the whole patient journey globally.

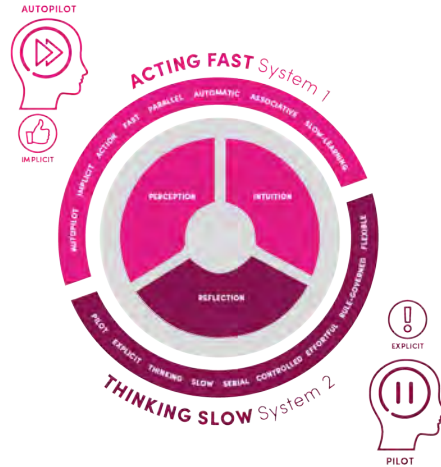
Finally, and perhaps most tellingly, the work has begun to change minds inside PLW, challenging established ways of working and redefining what best practice looks like. The global patient association partnership has been instrumental in effecting this change, with internal stakeholders appreciating the value of such human-centered insight and the real world impact the work can have.

THE APPROACH IN DETAIL: LAYERING OF INSIGHT

At each step of the journey, a recognition that communicating the richness of insight and the experiences and needs of people with psoriasis was going to be key to the success of this project guided the project team. The approach embedded the power of storytelling not only to gather insight but to bring to life the realities of living with psoriasis. Encouraging a narrative ‘storytelling’ approach allowed people to think freely and imaginatively, and enabled thinking at a higher level of narrative that tapped into fundamental emotional drivers and goals.

Nobel Prize-winning psychologist Daniel Kahneman produced a framework (Figure 1) showing the two systems that determine our decisions and behavior (Kahneman 2011). A useful metaphor for how the two systems work together is to see System 1 as an autopilot (implicit) and System 2 as a pilot (explicit). In this project, it was clear that deeper, implicit drivers were at play and that understanding the implicit goals of people with psoriasis and those that treat them was fundamental to creating a new and empowering narrative. Knowing that the ‘language’ of System 1 is built around associative and visual storytelling,

key to achieving this new more positive narrative was to create stories and experiences that build associations and connections with people’s implicit goal.



Source: Thinking Fast & Slow, Daniel Kahneman, 2011.

Figure 1: Framework to help to make sense of the complexity of human behavior

This case study highlights the value of the ethnographic and other methodologies used in helping to create the internal engagement that can stimulate new and creative thinking in organizations and act as a catalyst for strategic level change across a business.

“Our findings show that ethnographic storytelling – the crafting of stories that takes place after an ethnographers’s immersion in the field – can be indispensable not only to a company’s consumer research function but also in changing the company’s strategic direction”. (Cayla, Beers and Arnould 2014)

The above quoted paper, *Stories That Deliver Business Insights* (2014), builds on this to outline “how ethnographic research can offer deeply emotional insights that increase organizational empathy”. But how does one achieve this ‘customer empathy’?



Source: Dave Gray, XPLANE, 2009.

Figure 2: Empathy map used as a model to build empathy with customers

As shown in Figure 2, the combination of in-home ethnographies alongside methods such as cultural analysis allowed a layering of insights into spaces that people may struggle to articulate, or are unaware are influencing them directly e.g. wider cultural discourses on body image. Additionally, bringing patients, dermatologists, nurses, thought leaders & patient influencers together with clients – in roundtable debates and co-creation workshops – aided exploration of the tensions that existed between groups while allowing people to step into the shoes of others using the principles of design thinking and prototyping.

1. Cultural and Social Discourses

In order to better understand people, culture was the first port of call. This focus on culture provided rich, balanced insight from deep immersion into a conceptual space which people are not required to, or even able to, fully articulate. Looking at emergent discourses and ideas encoded into communications (Figure 3) provided the consulting team with an understanding of shifting needs of patients and a framework of understanding about what shapes the perceptions of patients, medical professionals and the general public. The team used an understanding of these influences to build empathy, connecting and providing strong relevance across all audiences.

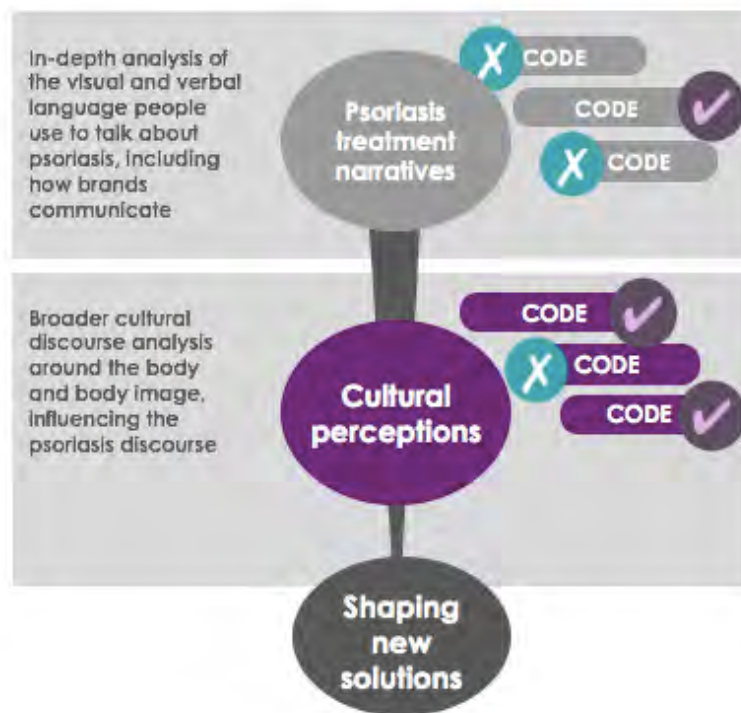


Figure 3: The discourse analysis involved the critical examination of the cultural factors influencing perceptions and behaviors, using a semiotic lens to decode the verbal and visual language used.

Broader cultural discourses around body and body image were explored and an in-depth analysis undertaken of the visual and verbal codes including brands that people use to talk about psoriasis. The research was undertaken by a team of three semioticians, each responsible for their native market; Germany, Canada and UK. The following range of sources were explored:

- Academic publications and communities on body image, skin conditions etc.
- General cultural discourses on beauty, body and body image.
- Psoriasis-specific health, wellbeing and lifestyle discourses.
- Social media conversations on Twitter, Facebook, YouTube and other platforms.
- Traditional media, such as news and magazine coverage.
- Entertainment media, inc. film and TV representations of health & skincare topics.
- Pharmaceutical advertising, marketing and branding communications.

The analysis looked to unearth how other pharma companies communicate and uncover the underlying messages from the visual and verbal cues they use to get an accurate sense of how the different brands play into the psoriasis discourse. A second component of this analysis focused on culture, the team looked at how the visual and verbal language of the therapy area and related skin conditions are represented in conversation, TV, press, celebrity, books, etc. Culture is constantly changing and how we talk about skin conditions and psoriasis evolves depending on the development of new needs and lifestyles. For example, CariDee English, the 2006 winner of *America's Next Top Model* has psoriasis and this has altered cultural perceptions of the condition. To understand how to create a relevant story for the brand therefore, we needed to identify these shifts and pull out the right cues to create interest, resonance and leadership.

Working together, the semioticians and the consultancy team, through collaborative narrative sense-making discussions, the team analysed the significant body of data that emerged. A rich cross-cultural framework of understanding evolved into a model that would underpin PLW's overall strategic direction in its approach to psoriasis.

For reasons of client confidentiality, it is not possible to share this model. The model however was instrumental in sparking a new way of looking at the patient journey. It moved from the transactional to the emotional, taking a holistic view of the lives of people with psoriasis. It showed clearly, too, that there was an opportunity to shape a much more positive narrative.

Below, in brief, are three of the key stories that emerged and that became central insight areas in shaping the final strategy;

Toward a more positive narrative – As shown in Figure 4, a new and more positive discourse: 'connection' has increasingly replaced the traditional narrative of 'protection' in healthcare. Traditionally among people with psoriasis, failure to conform to popular beauty ideals resulted in feelings of defensiveness and shame. Now, though, they are progressively responding with a more positive and determined tone. Stepping out of the shadows by those that do not fit in has become widespread – they are seeking to show their real self to the world, to remove their protective mask, to challenge themselves and the world to turn

avoidance into embrace. By embracing self-acceptance and self-expression, through engaging in productive discourses with both the inner and outer self, a positive upward cycle unfurls.

Imperfect icons

A new breed of celebrity is keen to impress upon their fans that they are just like everyone else, thereby meeting the rising need for 'empathetic icons'. This means undermining the myth of their own perfection by admitting and sometimes even showcasing their flaws – from chubby thighs to a history of depression. The dreamers (and extreme cynics) may even position themselves as a source of inspiration to their fans.



“““
I think strength is being able to reveal the grossest sides of yourself without apology or a fear of being ugly. That, to me, is strength.
”””
Tatiana Maslany,
Canadian Actor

Figure 4: An emphasis on learning to love what you have and a new kind of body ideal, one rooted in a celebration of authenticity and difference, is taking hold in the wider cultural landscape.

Being me



Self-acceptance is increasingly framed as the number one challenge facing people with psoriasis. Once it's achieved, anything is possible. This is an approach widely extolled by many bloggers e.g. "If I can embrace myself with psoriasis, I can embrace all of who I am." Positive affirmation and self-help discourses abound. They demand that people with psoriasis cease to externalise the problem and accept it as an intrinsic part of themselves.



“““
This is my skin, this is what I live in... I love me now, patchy, red, burning, peeling, itchy skin and all.
”””

Figure 5: The broader cultural movement toward self-acceptance and self-expression is rapidly gaining sway within the psoriasis community. A determined tone characterizes psoriasis bloggers, which fits naturally into the reconfiguring of the challenge as a productive stage in a broader upward-facing life narrative.

Within this general trend, differences by market were found to exist:

- In the UK, a new breed of psoriasis bloggers and patient influencers is sharing their stories and raising awareness.
- In Germany, strong communities of support are developing, providing a space for people to reconnect with life.
- In Canada, while celebrities are starting to speak out, the ‘protection’ narrative still retains considerable influence.

The power of vulnerability & self-acceptance – As suggested in Figure 5, we found the courage to be vulnerable lies at the heart of moving from protection to connection – removing the protective mask to show the ‘real self’. The worlds of people with psoriasis can open up as they become attuned to the relationship between inner world strength and positive outer world expression. Learning to open up and be vulnerable underlies the journey to self-acceptance which is fundamental to the ability to connect.

“I am married, and I am lucky. My husband is that rarest of creatures, the all-accepting, non-judgmental human being. It still took time for me to be comfortable for him to see me without my clothes, especially when my skin was flaring”. *Female psoriasis sufferer, blog post*

“After we started dating, it took a few months for us to finally get intimate and I knew something was bothering him, and he finally told me to much embarrassment that he had penile psoriasis. I was glad that he told me because I felt that he trusted me and, if anything, it made me love him more for his vulnerability and honesty”. *Penile Psoriasis Halting Intimacy, blog post*

It emerged that people with psoriasis typically go on a significant journey before coming to acceptance – a journey that can leave emotional scars. As a thought leader, specialist dermatologists and co-author of Global Report on Psoriasis, WHO (2016) outlined, “The emotional scarring can still serve as a burden to many patients - some hardly regain complete quality of life even though the skin is clear”. It was clear that there was a lot to be done in supporting people with psoriasis in achieving skin clearance and on their emotional journey to self-acceptance. This realisation acted as the impetus to extend the search for insights beyond understanding the patients’ journey and into inspiring solutions that could support, ease and shorten the journey toward self-acceptance and emotional well-being.

Turning toward to create an upward spiral of positive emotion – This brought the consulting team to the growing evidence that little touches are hugely important and that intimate relationships are full of bids for connection. These little touches and connections in our everyday lives are the secret behind many successful relationships.

Supporting people with psoriasis to build an upward spiral of positive emotion and turning towards connection in the micro-moments of everyday life, whether that be the courage to wear a short-sleeved top, or to reach out to a loved one, was integral to the overall strategic output of the project. As one expert said,

“A key coping strategy patients do is avoidance of activity. We want to help them to be more emotionally aware, access their feelings and expose their skin to other people. Even though patients have clear skin they still haven't dealt with what's underneath - our role is to facilitate a journey towards a renewed sense of self-belief and acceptance.” *UK psychodermatologist – in-depth interview*

One female patient provides an example of the value of this approach,

“By talking through the issues with a therapist it really helped me not to care so much. Afterwards, I bought my first short- sleeved top. I still remember the sense of liberation I got when I wore it for the first time. Putting my condition in perspective gave me a new sense of freedom. I realized that not everyone looking in my direction was staring at me.” *UK female - online article*



Figure 6: The richness of cultural insight and emergent discourses lent itself to powerful storytelling

In the first client workshop, the cultural analysis discoveries were shared with stakeholders from across PLW. The richness of cultural insight and emergent discourses stimulated a range of solution ideas which would be further developed based on the insights gathered in the in-home ethnographies and HCP in-depth interviews.

2. In-home Ethnographies & In-depth Interviews

Because of psoriasis’ deep psychological dynamics, the rich level of understanding we needed could only be gleaned in people’s homes. In-home ethnographies allowed the researchers to:

- Take cues from people’s homes, producing real stories whose deeper meaning emerged through sharing in context.
- Build a trusting relationship with people with psoriasis more rapidly by meeting them in a place of comfort and security.
- Use objects in the home as cues for detailed probing to explore unarticulated needs that wouldn’t naturally surface in a lab facility.
- Identify and explore differences between what people say they do and how they actually behave.
- Explore sensory experiences around their health and health experiences (Pink 2015).

It is hard to generalize about the impact of psoriasis except to say that the psychological impacts can be often worse than the physical ones and that, to understand a patient, you need to see their life in the round. The sometimes agonizing symptoms inevitably spill over into people’s emotional lives, drastically effecting their lifestyles, working lives and relationships. In situations like this, there is no substitute for hearing people tell their own story in their own words.

For example, one story from a hockey coach and triathlete whose physical prowess was a core part of her self-image, but found herself training at home, alone, too scared to go to the gym. “I used to feel invincible. Now I can’t even apply for a promotion at work.”



Figure 7: In-home patient stories in magazine style format to bring to life ethnographic storytelling as a tool to build empathy and engage internal stakeholders in the insights

Another story comes from a man who, after growing more and more withdrawn, described the change on biologics as a ‘physical rebirth’. He cut off his long hair and, in an act of reclaiming his skin, got the arm tattoo he’d wanted for years. “And I now have a girlfriend...I have my life back.”



Figure 8: In-home patient stories in magazine style format to bring to life ethnographic storytelling as a tool to build empathy and engage internal stakeholders in the insights

Shared stories make it so clear that a good doctor-patient relationship is fundamental to recovery. As these verbatims show, patients can struggle to articulate the importance of the emotional aspect of psoriasis. HCPs widely overlook it:

“I would come with a list of questions and leave feeling ignored. Eventually, I saw I needed to take responsibility for getting well myself. I started to look for a doctor, dermatologist and rheumatologist who would work together. The big moment came when my dermatologist said to me ‘I believe you’. Just that. At last I had the possibility of being myself again.” *Patient, Germany*

“My dermatologist and I only ever discuss treatment – but sometimes I do want to say that I’m not feeling good... If my dermatologist asked me how I was feeling I’d be more inclined to start to open up.” *Patient, UK*

As important as understanding patient perspectives was understanding the point of view of the medical professionals who treat them. The research therefore aimed to explore how dermatologists and patients could be empowered to have different and better conversations for a more effective management of patient treatment. As this dermatologist’s quote shows, it was clear there was much work to do, here: “I just don’t understand why it’s still having such a big psychological impact. You have clearance now, you need to let it go.” Thus, even where patients were on biologics, which was often a good indicator that patients and HCPs have entered a partnership approach to treatment, there were still gaps to be addressed.

It was clear that the patient-HCP dynamic needed to be rethought. Patients need to be empowered to overcome their fear of asking for more psychological help. HCPs, meanwhile, need better insight into the psychological impact of the condition. In these conditions, better-supported patients, better communication, and more effective and efficient consultations and treatment should result.

To understand the dynamics of the patient-HCP relationship and begin rethinking it, the MINDSPACE behavior change model was used. It was chosen as it outlines nine robust influences on human behavior and has been used successfully in shaping positive interventions in many areas of health, well-being and government policy.

MINDSPACE

We are heavily influenced by sub-conscious cues, shortcuts and heuristics. Understanding these influences helps us create new behaviours and opportunities to innovate and influence behaviour change as well as commercialise new ideas.

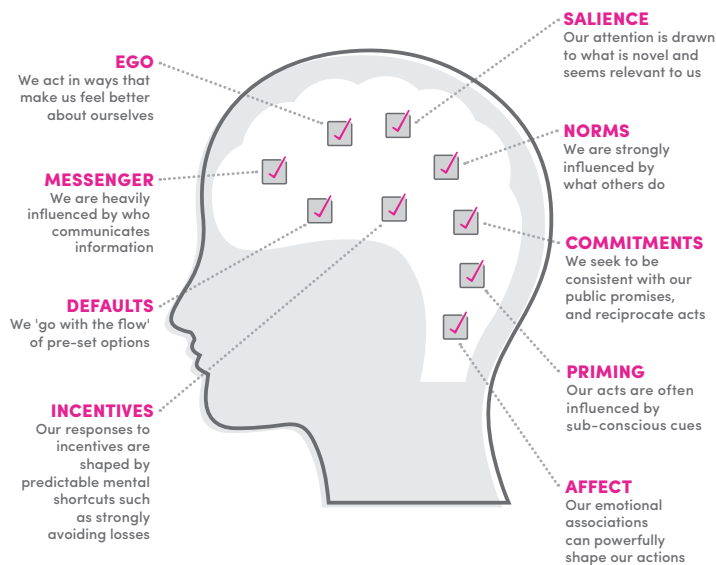


Figure 9: Behavioural change framework MINDSPACE (2010) developed for policy makers, it looks at nine factors that influence and drive behaviour change. These factors are underpinned by considerable research from the fields of social psychology and behavioural economics.

The MINDSPACE framework, and the nine strands that comprise it, were used at multiple points in the project: in the development of discussions guides, as a framework for analysis (to identify which strands are most influential during the patient/HCP conversation) and to build behavior change interventions into the solutions created. Examples of some of the insights sorted by strand are as follows:

- **INCENTIVES** (*our responses to incentives are shaped by predictable mental shortcuts, such as strongly avoiding losses*) - **Time a key barrier:** “If you add only an extra 30-60 seconds to each patient that’s a whole extra hour a day and a hour that I am not getting paid for.” *Dermatologist, Canada.* A dermatologist may see more than 30 patients a day,

usually for a maximum of 15 minutes. Practically, then, the opportunity to engage with psychological issues is limited, meaning patients can feel only the physical aspects of psoriasis are addressed.

- **DEFAULT** (*We 'go with the flow' of pre-set options*) - **Focus on the visual:** “Dermatology is a very visible discipline, you treat what you see in front of you and assess the rest by asking the right questions.” *Dermatologist, UK*. The treatment conversation remains dominated by physical appearance.
- **PRIMING** (*Our acts are often primed by sub-conscious cues*) – **Inherent power inequality:** Many patients recognize the lack of HCP interest in their wider lives and the belief their observations of their condition is given little weight in decision making. “I don’t even try now – they’re not interested in what I think or what I want to say.” *Patient, Germany*. As a result a gap can develop in the understanding of the impact of psoriasis on patients’ lives which affects the course of future treatment. Simply put, if HCPs don’t ask, patients won’t tell.

3. Co-creating a Better Future Together

Too often, research projects can stall in the transiting from insight to action. To ensure momentum could be generated and maintained, patients, dermatologists, nurses, thought leaders & patient influencers, alongside clients, were brought together to review the insights and ‘co-create a better future for people with psoriasis’.

A design thinking approach was taken to put empathy at the heart of the approach where all involved had the opportunity to step into each other’s shoes. From this viewpoint, a new understanding of the possibilities for change became real and a sense of commitment to sustained change was built (see final section Creating Strategic Momentum).

The building blocks of design thinking are:

- *Empathy – insight grounded:* this is about stepping into the patients and HCPs shoes and understanding the world from their perspective.
- *Prototyping – build to think:* prototypes are about making ideas, service concepts and experiences tangible. This allows ideas to be tested, refined with weaker ones discarded.
- *Storytelling – bringing to life:* this is about bringing to life and communicating insights and solutions in a way that moves people to action.

Truth’s consulting team included designers, illustrators and copywriters working together with the researchers, strategists and semioticians to guide the prototype development. A budget for the development of 7-8 concepts was allocated to include design, materials costs, and time involved.

The co-creation process involved the following immersive stages:

Co-creation auto-ethnographies – Over a two-week period through an online auto-ethnography and co-creation platform patients, dermatologists and nurses shared their experiences in shaping ideas & solutions that would better support the treatment of patients. Separate ‘streams’ for patients, dermatologist and nurses allowed each group to have their

own ‘discussion space’. The timescale of the work allowed patients and HCPs to share their experiences of living with psoriasis (patients) and psoriasis treatment in general by completing 20 minute of auto-ethnography tasks daily – uploading pictures, videos and sharing stories with each other. This also zoomed in on their digital information search behaviours. Because it spread across multiple days, auto-ethnography supports an iterative approach, allowing co-creation/ideation over a longer period. Further, clients are able to ‘observe’ the community, enabling ongoing involvement in the research.

The research team moderated and stimulated the discussions by uploading tasks and sharing stimuli from the cultural analysis and in-home ethnographies. Shared in the form of insights linked to unmet needs, these stimuli were springboards for idea generation. Potential solutions from the previous phases were shared for each insight areas. For example, participants shared potential solutions to aid people in moving toward acceptance in an insight area exploring the power of vulnerability and self-acceptance. Through the co-creation process potential solutions were optimized and iterated and new ideas created.

At the end of the second week, a ‘focus group’ discussion allowed the participants to share their reflections on key emerging themes and which of the optimized solutions had the most potential in supporting their unmet needs.

Prototyping workshop - This was a working session with cross-functional & multi-disciplinary representatives from the client. The workshop aimed to immerse participants in key process insights and design thinking, and then agree which of the potential solutions would be taken forward into prototype development. As shown in Figure 10, as the participants brainstormed and shaped ideas, an illustrator was at hand to continuously draw the ideas to bring them to life.



Figure 10: The illustrations and sketches help inspire workshop participants in building out their ideas

A voting prioritisation process was used to select 7/8 ideas for the prototyping phase. The team went to work in bringing the prototypes to life – the ideas included a range of format such as apps, websites, paper based journal and storyboard animation (note: the prototypes cannot be shown in this paper for confidentiality reasons).

Involving influencers – With input from patient influencers and thought leaders, like leading dermatologists, specialist nurses, and psychodermatologists, prototypes evolved further. Input came from in-depth interviews across multiple markets, including hospital visits to understand the realities of treating patients in context and explore the potential to transform the standard of care.

“Our studies show that biologics without addressing the emotional needs will not have the impact on people’s overall sense of well-being. Training in the emotional area would be really good so dermatologists have a greater understanding of the psychological make up of patients – particularly on the one or two key questions that will help to understand where someone is emotionally on their journey”. *Psychodermatologist thought leader*

Roundtable debate forms – The research for this stage took place in moderated roundtable settings, allowing patients and healthcare professionals to properly listen to and understand each other. The 3.5hr sessions were held in a viewing facility with a large viewing room that allowed both HCPs and patients to observe each other exploring the prototypes before coming together to ‘debate’ and work together to provide optimal solutions. It was apparent, even in just a few hours, how much each had to learn from each other and how perspectives could change in a situation where honest, two-way communication could take place.

“Until I heard the patients explain how they suffered with psoriasis I had no idea that people were that deeply affected by the condition...I would definitely open up the conversation to the emotional now knowing this.” *Dermatologist*

As a result of this approach, we were able to extract not just deep insights, but powerful, personal expressions of what it means to live or work with psoriasis. It is clear that there is an opportunity to move toward a more equitable patient/HCP relationship by empowering patients to articulate their needs. HCPs, meanwhile, need better insight into the psychological impact of the condition that will support to meet patients’ holistic needs. Ultimately, putting more control in the hands of patients was seen as central to the solution development process – with solutions designed to support acceptance and a greater sense of control over themselves – both in terms of their emotional response and what they can achieve.

International co-creation workshop – Building on the previous phases, an international co-creation workshop with 3 Key Opinion Leaders, 3 dermatologists, 2 nurses and 6 patients and patient influencers set about prioritizing and optimizing the prototypes. Clients commented on the value of the co-creation workshops:

“This was EXCELLENT and should be the standard moving forward. Seeing derms and patients interact and learn about each other’s perspectives while they consult and actively engage in the creation of the final solutions was invaluable in creating meaningful solutions that have the potential to really make a difference”. *Client stakeholder*

“In my 25 years in pharma, I’ve never been involved in a situation where patients and HCPs have sat down together and told us what they need us to build for them and how they want it to work. Perhaps this is common in consumer markets, but in the world I work in, this is revolutionary.” *PLW client*

Having been on this journey together, the workshops transformed the tensions that were apparent in earlier stages of the project between the various groups of stakeholders. The co-creation workshops produced a positive spirit of togetherness.



Figure 11: Co-creation workshop with doctors, patients, thought leaders and the client teams

CREATING STRATEGIC MOMENTUM

The unprecedented depth of the project and the range of research methods employed, along with the feedback processes built in, give confidence that the outputs provide powerful insight into the world of psoriasis. Moreover, they give good reason to believe that it is possible to transform how psoriasis is treated and how people living with psoriasis, HCPs and the world generally think about the condition. In a sense, though, the bigger challenge – and one that faces any radical piece of research – is how to move from insight to impact. How to engender and sustain momentum over the period necessary to realize a bold vision is a challenge previous presentations at EPIC have emphasized (Hou & Holme 2015; Hoy & Rowley 2016). Hoy & Rowley (2016) argue that successful implementation is less a question of scale and more a question of whether the components of the network (the people and shared resources) have the capacity to deliver the strategy. These concerns helped shape the project approach. Owing to its size and regulated status, the pharmaceutical industry is inherently conservative. The risk was that the output of the project would face resistance from some quarters and undermine continuity in the support required for it to bear fruit. The client core team showed great courage internally in bringing colleagues, most notably compliance, on board. But the ‘network’ that was built went far beyond this. Patients, HCPs, patient influencers and, crucially, the global patient association partnership give the project

many guardians who will provide the continuity and momentum necessary to ensure project outputs live on beyond the creative team.

To support the growth and effectiveness of this network, a host of initiatives are underway as part of the project's delivery phase (Table 1):

- Immersion workshops – including toolkits and guidelines for roll-out.
- Rich ethnographic storytelling – a magazine style report, an animation to bring to life the process, and foundational insight and manifesto posters.
- Solution development workshops – briefing agencies to begin to turn the prototypes into usable solutions.
- Best practice guidelines – sharing learnings on how to navigate and implement ethnographic and empathy driven methodologies.
- Publication of results in medical journals and *The Economist* – impacting professional discourse beyond the geographic confines of the project.

In all of this, the storytelling approach has proved crucial in overcoming objections and uniting the disparate groups involved in the project. It brought to life the realities of living with psoriasis as well as the perspectives of caregivers and HCP, fostering stakeholders' emotional connections. In this sense, the power of story as a boundary object (Star & Griesemer 1989) moving across institutional borders allowed the various audiences to connect and take their meaning from the stories and embedded insights.



Figure 12: Stories were brought to life across the project to include a magazine, animations, film etc.

This has the potential to be a ground-breaking piece of work, providing deep, human-centered insight and, in so doing, helping to change how a global business thinks not just about its immediate customers, but about the very way in which it conducts its research.

Where once psoriasis was a devastating and hidden ailment, exacerbated by mutual misunderstanding between pharma, patients and HCPs, now the prospect is brighter in that research, through its network and strategic momentum, can support the transition to a new way of thinking about, and treating psoriasis. And do so for decades to come.

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Cases 3 – New Ventures and New Markets

Imagining a Gym for the Spirit, Mind, and Body for the 21st Century

ALEJANDRO JINICH

Gemic

This case explores a research and consulting engagement whose goal was to build an investment case for a new type of 21st century gym for the spirit, mind, and body. The client, a group of well-funded U.S. entrepreneurs, wanted to design and launch a venture that would be positioned to serve the emerging spiritual needs of the proximal future (2-15 years). While the founders were themselves involved in meditation, belief-dependent realism, and a loose collection of westernized oriental and mystic practices and beliefs, they had not yet defined the venture's specific offering. They suspected that (a) the dominant sociocultural climate of rationalism (e.g. rationalized life choices/paths derived from rationalized worldviews, disengaged relationship with the body and emotion, cynically-motivated wealth creation, etc.) and the lack of embodied and experience-based decision-making and living practices were at the core of a generalized social malaise, and that (b) decoding it and designing a venture to target it, if done right, had the potential to catalyze a movement that could be both highly socially beneficial and lucrative. The case describes the journey to design a research methodology to validate, qualify, and expand their theory, study spirituality in U.S. culture, map the relation of spiritual needs to salient psychosocial problems, create a predictive theory about the future evolution of human spiritual and personal transformation needs, and design a business venture that would serve those needs, be broadly appealing to the U.S. public, and become a profitable company. The end product is multiple things at once: a service, a set of beliefs and practices, a philosophy, an intelligible, intelligent, and attractive system, a community, and a business, and the difficulty designing it and studying a topic as blurry, diffuse, and totalizing as spirituality and how it engenders individuals' relationship to reality and collective culture presents a particularly interesting opportunity to discuss how a hybrid research methodology of socio-historical research, ethnographic fieldwork, and semiotic analysis provides the correct focus with which to study and theorize around such a slippery subject.

INTRODUCTION

Our consultancy was approached by a group of well-funded entrepreneurs who wanted to design a business venture that would revolutionize the U.S. personal transformation industry by introducing spirituality to the mainstream and “pave the way to create heaven on earth.” They were part of the loosely knit conscious culture movement, and they wanted to create an entirely new type of gym for the spirit, mind, and body which would become the 21st century equivalent of the 20th century's gym for physical fitness. They thought that just as shaping the body had served as one of the core aesthetic, commercial, and quasi-religious activities of the 20th century, the next large-scale wave had the potential to be just as significant, with great power to fuel both social transformation and the personal transformation industry. Despite being among some of the most accomplished U.S. entrepreneurs, however, the complex nature of designing for such a drastic cultural discontinuity presented a significant challenge they needed help navigating.

The clients were all coaches or followers of a wide variety of personal transformation techniques and spiritual/conscious culture beliefs and practices, from meditation and

visualization to motivational speaking and emotional and entrepreneurial coaching. Having embarked on a years-long joint spiritual journey themselves, they were convinced that the power of the loose set of beliefs and practices they called “conscious” could transform individuals for the better, and they suspected that secular Americans were about to become open and ready for their widespread introduction. The consultancy’s tasks were to assess whether this was indeed true, to help them turn their philosophy into a consumable experience, and to design its delivery as a desirable and profitable service business. More specifically, the consultancy was asked to design a research methodology to evaluate U.S. culture’s readiness for a new personal transformation philosophy-based service that would be based on spiritual conscious culture. The results of the research would then serve as the basis for translating the founders’ spiritual philosophies, skills, and practices into a coherent, desirable, and competitive service business.

During the introductory meeting, the clients presented the consultancy with their philosophies and with the wide set of beliefs and practices they held to cultivate the more conscious way of living that they wished for everyone. They believed that the greatest source of individual and societal ills experienced today, from stress and corruption to disease and emotional pain, had its origin in the psycho-social realm, and specifically, in the way that we construct reality. Instead of incorporating the knowledge that emotions provide us about all levels of reality (emotional, professional, spiritual), they saw mainstream western culture as having fallen victim to a reductive and materialist rationalism that was causing people to lead lives that they did not want to lead. Having lost touch with the spirit and the body, with its senses and its emotions, and with the knowledge they give them about themselves had led westerners to accept a material lifestyle-based culture built from the outside in, fueled by fear of missing out, and predicating happiness on the desires of others. In other words, they thought that just like decades ago the lack of knowledge and focus on physical fitness had caused a rise in society-wide physical health problems, a culturally dominant unconscious way of living today was the underlying cause beneath our political, mental, physical, and spiritual malaises.

The solution to this, they claimed, was a cultural change of attitude to accept belief-dependent realism – the belief that if we change what we believe is real and possible, reality itself can expand and morph into a better version of itself. This was an explicit acknowledgement of the anthropological tenet that reality is culturally constructed. Taking it as a basis, they proposed that teaching a set of beliefs and bodily techniques that could help people embody the tenet would make them aware of their relationship to reality and turn them into agents of mass cultural change. Mystical and emotional sensitivity techniques would be crucial to help people find their purpose and give them the personal development skills to actualize it. They drew from the ideas of Abram Maslow, a behavioral psychologist who proposed an innate human hierarchy of needs that culminate in the need for self-actualization, and David Hawkins, an author who charted a path for spiritual awakening based on expanded awareness of consciousness and emotion, to argue for focusing the new service on self-actualization and the cultivation of consciousness. But while this was an exciting philosophical discussion, it was difficult for them to concretely articulate what exactly conscious spirituality was, how self-actualization could be sold and be delivered, or what was the precise philosophy that would be transmitted.

Following this, when asked how they planned to turn the philosophy into a practical business, the founders presented a list of ideas for the business’s offering which included

everything from ecstatic dance parties to yoga and meditation lessons, a conscious culture members' community center, a virtual reality game app, spiritual and personal development classes, and personal coaching. The business model too was far from clear; ideas included a pay-based mobile app, a membership-based community center, pay-per-attendance-based classes, and a recruitment-based multi-level marketing scheme to sell products and generate income for members.

It quickly became clear that the founders had difficulties imagining how their spiritual philosophy would be made into a tangible service and were unable to distill what their concrete philosophy was. They could feel it. It had changed their lives, awakening them to a higher level of consciousness, but they had difficulty describing it as an outward-facing value proposition. The anthropologists leading the consulting engagement understood that the reason for this was probably the mystical nature of their spiritual transformation. What they were hearing were people already on the other side of a mystical transformation, which by its very nature is a phenomenon one must taste in order to understand. This, of course, did not discount the possibility of decoding it and packaging it into a consumable experience, but before delving into the research to gauge readiness for this type of transformative spirituality in the U.S., it would be necessary for the consultancy's anthropologists to understand what exactly conscious spiritual transformation means and how it is lived. Having suspected this would be the case, the founders had selected an unorthodox business consultancy – one with the research tools and acumen necessary to craft a sharp focus into both the founders' spirituality and the world's spiritual needs. They needed researchers who could gain an intimate understanding of the founders' embodied spirituality to then go back to the world, see if and how U.S. culture would be ready for it, and design a venture and a compelling investment case based on data.

To the consultants leading the project, it was clear that ethnography would play the major role; it would allow them to both distill the founders' unarticulated mystical philosophy and explore the spiritual needs of U.S. secular people, most of whom did not identify as spiritual or recognize the presence or existence of spiritual needs. But they would also need other cultural research tools to help them gauge and interpret the U.S. market's readiness for a new kind of spirituality service and to design, size and justify the investment in launching one.

DESIGNING THE RESEARCH

After the initial meeting, the consultants retreated to their office to map and break down the complex challenge facing them and to develop a project plan and a research methodology to tackle it. Interestingly, they had not been presented with a discrete business or interaction problem (declining sales, behavioral or interaction design, etc.); instead, they had to build a foundational understanding of spirituality – the loose, diffuse, and heterogeneous set of secular and non-secular beliefs and practices that mediate our relationship to reality – and use it to design a new personal transformation service meant to exist within an entirely new paradigm and to become the 21st century equivalent of the 20th century's gym and church. In concrete terms, the engagement's goal was to build an investment case for a new type of 21st century gym for the spirit, mind, and body that would be positioned to serve the emerging spiritual needs of the proximal future. A still unclear mystical spiritual philosophy and set of personal transformation beliefs and practices had to be articulated and packaged into a

consumable philosophy that would be desirable and would meet the emerging spiritual needs of U.S. mainstream culture, including those of people who did not yet identify as spiritual.

They began by noting that the highly ambitious end product would need to be multiple things at once: a philosophical point of view on the nature of reality, an intelligible and intelligent system of beliefs and practices that users would adopt, a community, and a service business. In order to simplify it, they reduced it to a simple three-pronged structure: First, they would have to craft a philosophical view of the world based on belief-dependent realism which would have to resonate with contemporary U.S. culture; second, they would have to turn that philosophical view of the world into consumable experiences which would deliver it in an effective and appealing manner; and third, they would have to organize the delivery of the consumable experiences as a profitable business.

The three together would form a value proposition consisting of an engaging philosophical point of view on contemporary life. And it would not necessarily have to take the form of an explicitly spiritual endeavor, for although it would be the underlying philosophical narrative delivering the value by helping people make sense of the world and their lives in a new way, like most major fitness and lifestyle movements (e.g. yoga, Crossfit), that narrative could be translated into a value proposition that would be acted out and consumed in the form of products and services.

Since this was still dangerously abstract, the consultants then broke down the challenge into four manageable pieces: 1) understand and articulate the mystical spirituality of the founders and its underlying cultural values, (2) identify the key unmet spiritual needs in both spiritual and secular mainstream U.S. culture, (3) build a predictive theory about the future trajectory of spiritual and personal transformation needs, and (4) design a desirable, competitive, and profitable business venture based on the founders' philosophy to serve those needs. For each of them, they chose an evidence-based research methodology as follows:

- 1) *Understand and articulate the mystical spirituality of the founders and its cultural value.*

Aim: Grasp the founders' philosophy rationally and experientially to determine its potential and find a way to articulate it and make it intelligible for an audience that has not yet experienced and adopted it.

Methodology: Ethnographic immersion into the founders' lives and their spiritual personal transformation community to build an understanding of their mystical spiritual philosophy from an internal vantage point. Ethnography would attempt to let the consultant-anthropologists move into and out of the founders' mystical experience of reality so they could (a) learn its value to help the founders articulate it with the right language for the world, and (b) know what to look for in mainstream culture to gauge its readiness for spirituality.

- 2) *Identify the key unmet spiritual needs in both the spiritual and secular U.S. population.*

Aim: Having understood the nature and value of the founders' mystical experience, to gauge mainstream U.S. mainstream culture's readiness for it.

Methodology: Ethnographic immersion into secular and representative Americans to understand their articulated and unarticulated spiritual and personal transformation needs and the driving forces behind them. Also, to map the language with which the spiritual philosophy and its value could be articulated to be intelligible, relevant, and desirable for the mainstream.

- 3) *Build a predictive theory about the future trajectory of spiritual and personal transformation needs.*
Aim: To project forward the driving forces behind the spiritual needs of Americans and validate the founders' hypothesis that mainstream U.S. culture would soon be ready for widespread acceptance of spirituality.
Methodology: Carry out a broad socio-historical analysis of the spiritual and personal transformation practice and belief systems of the 20th century to identify the driving forces behind them (economic/material, social/cultural, and/or spiritual/psychological). Then, combine those findings with those from the ethnographic research to see if and how the founders' spiritual transformation philosophy could be valuable and desirable.
- 4) *Design a desirable, competitive, and profitable business venture based on the founders' philosophy to serve spiritual and personal transformation needs.*
Aim: To package the founders' philosophy into a tangible offering that would be both valuable and desirable for mainstream U.S. culture and a profitable and scalable business venture, to competitively position the venture in the personal transformation space, and to build an investment case to raise the capital needed to launch the venture.
Methodology: Semiotic analysis of the current and potential competitors in the US personal transformation and spirituality space to determine the venture's ideal positioning, strategic design of the venture's offering and business model informed by the analysis of the previous three research phases, and quantitative market sizing and financial projections to justify the capital investment.

After presenting the hybrid research methodology to the clients along with an eight-week plan to tackle it, the consultants turned to the question of how to use ethnography to establish a vantage point into the embodied experience of conscious spirituality.

PHASE 1: ETHNOGRAPHY OF MYSTICAL CONSCIOUS SPIRITUALITY

The aim of this phase was to use ethnography to gain access to the founders' mystical spirituality, understand its value from within, and distill it into an intelligible philosophy for an audience that had not yet gone through it. Ethnography would let the two anthropologists leading the project immerse themselves into the founders' world to experience their philosophy from within; only then would they be able to do what the founders could not – distill the mystical experience into a tangible and intelligible philosophy – after exiting back into their original reality. In anthropological terms, they would learn the founders' emic perspective (the view from within the founders' spirituality) and use it to develop an etic perspective (the view from the observer's perspective) that would appeal to potential consumers, both spiritual and non-spiritual.

Before developing research questions and informant recruitment criteria, it was necessary to create a theoretical framework to define spirituality and to provide the consultants with concepts and language to study it. Spirituality, unlike the more traditional consumer cultural phenomena they were used to studying, was not just a phenomenon itself, but also a mode through which the phenomena of reality in general could be experienced and interpreted; in other words, a constitutive component of experience itself. To think about that mode, the consultants turned to the work of sociologist Emile Durkheim who

presents religion as both rooted in social convention and as a lens nested between a person and their reality truly endowed with the capacity to reshape their experience of reality:

A religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden – beliefs and practices which unite into one single moral community called a Church, all those who adhere to them.

(Thomson 1982, 129, excerpt from *The Elementary Forms of Religious Experience*)

The general conclusion... is that religion is something eminently social. Religious representations are collective representations which express collective realities; the rites are a manner of acting which take rise in the midst of assembled groups and which are destined to excite, maintain, or recreate certain mental states in these groups.

(Thomson 1982, 125, excerpt from *The Elementary Forms of Religious Experience*)

This system of conceptions is not purely imaginary and hallucinatory, for the moral forces that these things awaken in us are quite real – as real as the ideas that words recall to us after they have served to form the ideas.

(Bellah 1973, 160, excerpt from *The Dualism of Human Nature and its Social Conditions*)

Thinking about spirituality similarly to religion as a collectively informed way to conceive of the real that is derived from the sacred was a useful way to destabilize the rationalistic and objective conception of reality held by the consultants and secular mainstream Americans. Reality, seen through this lens, was not singular and objective but rather malleable and dependent upon the specific system of conceptions of the spiritual community. It also opened the door for the ethnographic immersion to provide the key pieces needed to distill the system of conceptions: the sacred and forbidden things that were set apart, the beliefs and practices that relate to them, and the rites and manners of acting. Interestingly, Durkheim had also identified the chasm that existed between those within a religion and those seeking to explain it, accurately foreshadowing the founders' inability to articulate the philosophy behind their spirituality themselves:

That which science refuses to grant to religion is not its right to exist, but its right to dogmatize upon the nature of things and the special competence which it claims for itself for knowing man and the world. As a matter of fact, it does not know itself. It does not even know what it is made of, nor to what need it answers.

(Bellah 1973, 205, excerpt from *The Elementary Forms of Religious Life*)

The first question, then, was what need was being answered in the founders' spiritual community through spiritual beliefs and practices. And to answer it, the consultants would use themselves as the instruments, invited by informants into their reality to then return to their own and interpret their journey.

The next step would be to plan the ethnographic fieldwork. The ethnographers decided they would spend time with both the five founders and with other informants who were on similar spiritual and personal transformation paths as the founders but who were not personally connected to them. Eight of these latter informants were selected to participate in in-home ethnographic interviews following a screening process that included a wide range of interpretations of spirituality (e.g. path of transformation, personal growth, self-actualization, mindfulness, consciousness) and that fulfilled gender and life stage quotas. During the ethnography, the researchers would have to learn each informant's language to probe deeply into his or her belief system and way of constructing reality. To serve as a guide, they

developed the five research themes and built a comprehensive set of research questions and an interview and activity guide for each. The themes and their key research questions are summarized here:

1. Daily life and personal history – Who are they and where are they now in their lives? What is meaningful about life? What gives them hope and is sacred and forbidden to them? What are their core beliefs and practices?
2. Ideal self and obstacles to it – What would make life more meaningful? Who would they like to be? What would their ideal community be like? What major obstacles, articulated and unarticulated, must they overcome? What is their relationship with time? With death?
3. Worldview and available offerings – What is their outlook on the world and where does it come from? What is their role in the world? What is an ideal world? What beliefs, practices, communities, and services do they see as helping move the world towards the ideal? How do they see and experience existing spiritual and/or personal transformation offerings?
4. Moments and places of transformation and community – What have been their key moments, groups, and phases of growth and transformation or connection with others, themselves, and reality? Why were they transformative? How are transformative moments constituted and what is the role of other people? What practices are woven into daily life intended to help them transform and grow and why and how are they believed to work?
5. Reflections on technology (technology broadly interpreted as any external tool, physical or immaterial, that could augment their ability to reach their potential as humans) – What kinds of technologies bring meaning to life and remove obstacles to a better life? How are spiritual and personal transformation offerings, communities, and services perceived?

The intimate and profound nature of a person's spirituality, worldview, and relationship with time, death, and other research questions meant that the ethnographic interview would only be successful with a very high degree of intimacy. Direct questions could not be asked; rather, a nuanced conversation, which would involve the ethnographer volunteering much of his own life, would be needed to build intimacy and guide the conversation. Before going to the field, the consultants created an interview guide with a flow of questions designed to gradually build intimacy and with the semantic flexibility to accommodate the diversity of informants' experiences. More than anything else, however, success would depend on the degree to which the ethnographer could establish a deep and meaningful conversation – a joint journey led by the informant into a new place – as opposed to an exchange of information; only then would the ethnographer be able to be pulled into the informant's relationship to reality and be able to see the lens through which they experienced reality. What followed was a fascinating ethnographic immersion into a diverse set of 13 individual realities, all imbued by a strong spirituality.

The consultants traveled to the founders' city where they carried out five half-day in-home ethnographic interviews with four women and four men participants and where they also immersed themselves in the founders' lives. The two groups differed in that the founders, as ethnographic subjects, knew the researchers' intention and were consciously

trying to teach and imbue them with their view of the world and of reality. Activities included long and animated group discussions in their office as well as informal gatherings in their homes. On the other hand, the recruited participants knew only that they were part of a research study for a new personal growth and transformation service, and it was up to the ethnographers to frame and lead the exploration of their spirituality and cultural reality. The contrast between the two groups provided a valuable tool which allowed the consultants to identify what those with and without a proselytizing intention had in common, i.e. to distill the essence of conscious spirituality regardless of participants' intentionality, level of awareness, and relationship to the research. It also let them explore the recruited participants' unmet needs and how they might be satisfied by the system of beliefs and practices held by the founders.

After an intense week of ethnographic fieldwork, the consultants returned to their office. The intimate ethnographic encounters had elicited strong reactions in them, both of resistance and attraction to the manner in which the informants defined reality. Once home the consultants were able to engage in the process of shifting between their rationalistic view of reality and the newly gained insight into the perspective of the research participants. This reflexive activity allowed them to clearly understand and interpret their cultural worlds. Conversations, field note writing, and pattern recognition sessions led the consultants to an initial list of seven ethnographic findings common to all participants and characteristic of adherents of conscious spirituality:

- Reality was read and experienced more intensely and with a sharper awareness as one progressed through a journey of internal truth that consisted on cultivating self-knowledge from within. Focusing on the body and emotion through both specific techniques and willful consciousness of experiencing life and making decisions from the heart led to a feeling of awakening dormant organs of perception and to a feeling of higher awareness.
- There was an experience of transformation lived and told as a story with a narrative arch that involved the overcoming of obstacles. A process, triggered either willfully by the desire to change or accidentally by an event such as a life trauma, would lead to a moment of awakening. And only after the transformation, by looking back at one's old self, would one identify the present higher state of consciousness in opposition to one's past unconsciousness. Often the desire and apparent necessity to make money and pursue material and lifestyle goals would be a core obstacle that had been obscuring the way forward. Losing a job (forced liberation from the engrossment of material pursuit), a near death experience, and the loss of someone close (sudden and intense creation of a relationship with one's own death) were common liberating triggers.
- The specific beliefs and practices were widely divergent, idiosyncratic, and creative, with participants drawing from friends, YouTube videos, books, and their own experience in their personal quests for deeper meaning and significance. They would all, however, eventually lead to the desire to create or access a community (real or virtual) of other seekers, and they all devoted discrete time and rituals for the advancement of the growth/awakening/development process. In many cases, the community would include the belief in a social movement of greater consciousness.

- A new interpretation of time and work would emerge, with greater importance given to both. The value of the present would both become an explicit priority and a felt reality.
- There would emerge, spontaneously or through a practice, a time and ritual of consciously taking stock of oneself – of what is important, what is one’s essence, and what to shed –, which would create a deeper and more direct felt experience of oneself. Out of this would emerge the sense that one could choose one’s path forward, the people around one, and what to do with one’s time with greater agency and more deliberate intentionality.
- The mainstream rationalistic and cynical interpretation of reality as solely external and objective became suspect or was rejected as the realization that one had control over reality by changing one’s beliefs grew. Believing that one’s beliefs had the power to change reality (and that there was no fundamental difference between reality and how it was felt/experienced) would trigger a virtuous cycle that would strengthen the belief and lead to its experiential confirmation. Reality went from being something external that was given and over which one had little control to something woven into one’s internal state, over which one could have power.
- A deliberately positive attitude and general sense of love and potential towards life.

Upon further analysis, the consultants identified that before becoming seekers or realizing they were on a spiritual or transformational path, the participants had not been able to articulate the fact that they had an unmet need or desire for spirituality, transformation, or greater self-awareness. This initial lack of a felt need or desire was an important obstacle that would have to be overcome to make the service relevant to non-seekers. They had also found that the central unmet need of those already on the spiritual path was either a lack of time to devote to the path of growth or transformation (usually because of the need to work) or a lack of money (usually because of their strong time commitment to pursuing spiritual growth). The ultimate promise and value, however, went beyond personal transformation; it was social and external to themselves, predicated on the condition that if we all change and embark upon a path of greater consciousness, an entirely new culture and society could emerge:

When I was 17 I already knew who I was and what I had to do. The world, the matrix, call it what you want, is still there and we must live in it, but not by it... If we all change from within then a whole new world becomes possible, right here, right now.
-D (25)

In addition, despite the wide diversity of individual beliefs, practices, and language the informants had used to talk about their spiritual or personal transformation experiences, the consultants were still able to distill their common experience of conscious spirituality into four core elements:

1. Introspection: Accessing their own deep thoughts and feelings, accessing the body, and searching for knowledge and wisdom within themselves.
2. Kindness: Sharing their time, resources, and internal states with others without any purpose other than connecting

3. Exploration: Putting themselves in new situations and with new people with the hope of having enriching and revealing experiences, with a special willingness to explore the nature of reality itself.
4. Openness: Making a conscious attempt at dropping pre-conceptions, being open to the mystery of life, and being kind and generous towards themselves and others.

The ethnographic immersion, then, had successfully helped the consultants understand the founders' spirituality and personal transformation from within. By meeting with both the founders and others on a similar path, they became able to articulate the key components of this loose set of beliefs and practices and build a foundational understanding of the value and meaning of what the founders had been referring to as consciousness, presence, awakening, and belief-dependent realism. They now also understood how this movement was being fueled by the quest for internal knowledge and the belief that reality and one's relationship to it were malleable and able to be cultivated.

It was unexpected how while on one hand the experiences, techniques, and beliefs of individual informants were diverse, idiosyncratic, and disconnected, on the other hand their modes of relating to reality were remarkably similar (and similarly different from the dominant mainstream rationalistic mode of which the consultants were originally themselves a part). This suggested that perhaps there was indeed a deep common need, true across ages and geographies, which could be awakened. The founders' hypothesis that mainstream culture's cynical rationalism was beginning to run out of steam was gaining credence. The next step would be to investigate that in phase two.

PHASE 2: ETHNOGRAPHY OF NON-SPIRITUAL AMERICANS

Having built a foundational understanding of the nature and value of the founders' mystical experience, it was now time to gauge the non-spiritual U.S. population's readiness for it. The research, then, would have to determine if the need for the value that mystical spirituality provided was also there for non-seeking secular Americans, and if so, how they felt, filled, and articulated that need and how they perceived existing offerings.

The consultants decided to design a similar ethnographic immersion to phase one, but one that would take place far from the place and community where the founders' spiritual culture was present. They chose New York City as the perfect litmus test: if a need and openness for the need and value that mystical spirituality could provide be found among secular and successful New Yorkers (those likely to be engrossed in mundane and material affairs), it would be likely that the need was widespread. It would also let the consultants discover how that need was being experienced in a culture that did not have a community or a language structured around it. The recruitment would follow the same gender and life stage quotas as phase one and would target informants who were not involved in any kind of mystical, spiritual, or personal transformation path, but who were self-aware, articulate about their own lives, and open to speaking profoundly about them.

The research themes would remain the same; only the mode of questioning would be different. The ethnographers would have to devote more time at the beginning of the sessions to discover the proper language and life context to speak about informants' needs for personal transformation and explore the things that were sacred to them. Special

attention would also be paid to their perceptions of existing mystical spirituality beliefs and communities and personal transformation services.

After recruiting five participants for half-day in-home ethnographic interviews, the consultants conducted the interviews. There were two men and three women participants, and they included a restaurateur, a finance professional, an education consultant, an architect, and a real estate agent, all in their 20's and 30's. They encountered the following findings:

- Despite not devoting any time to spirituality or personal transformation nor desiring to do so, informants readily acknowledged a strong tension between internal truth and external demands, which they experienced as being out of harmony. Some participants reported feeling frustrated that they had to sacrifice their desire to fulfill their full potential in order to succeed socially and financially. Others had experienced a mental health breakdown after discovering that they were living a life out of sync with their internal self. The need to perform to fulfill the demands placed upon them by an external system emerged as a common thread among them. In most cases, they were aware of the tension and had undergone especially tense or traumatic moments that had served to bring the external-internal tension to the surface, after which they had decided they should re-evaluate their priorities and live more in the present. However, most had not been able to do so yet and were having trouble negotiating with themselves and achieving harmony. They tended to use the language of therapy and identity – being, discovering, healing, and working on oneself – to describe the experience. Unlike the first group of participants, they did not attribute the tension to contemporary rationalistic culture and the manner in which it structures our relationship with reality. Participants felt the tension as an individual psychological problem related to identity and authenticity that was meant to be solved either alone or with the help of a therapist.

I cannot live the life I want now because in the system there are conflicting interests. When I leave home I need to turn on and perform so that I can build my business and make enough money to have the freedom and the life I want in the future... I crave those times when I'm myself, pursuing pleasure and not feeling guilty about it, like when I'm with my close friends or play music.
- G (28)

After I graduated from college I went back home and went through a very difficult time trying to figure out exactly who I was and what I wanted to do. It was confusing, frustrating... It's better now that I'm more confident about being an architect, but now it's all about what kind of architect. It's most important to do something I believe in, so I'm building my architecture practice. But after a close friend passed away recently I was shaken and felt that I have to find a way to live in the present; how do I do that and still get my career off the ground though?
- M (30)

Total panic. At some point I broke down at work and couldn't go back to the office. I had lost myself. I don't think I ever really had myself. I was just going through the motions and living for the desires of others, and when I realized it I froze and had to re-examine and rebuild my whole life.
- L (36)

- Despite working in highly diverse professional fields, participants coincided in their desire to work towards accumulating the conditions required to be able to choose their own work and own their own time. While entrepreneurship was the language most of them used to express this, it was the perceived benefit of becoming a successful entrepreneur that were motivating their desire: liberation from the desires of others and gaining the ability to own one's own time and to decide what to do with it. Only then, they said, would they be able to truly do what they felt they were in the world to do.
- All of them expressed the desire to lead more authentic lives and be more authentic themselves. They spoke of authenticity as the mode of being that results from one's genuine and internal essence, personality, and desire rather than from the felt need to be accepted or rewarded by others or what they referred to as "society". Having a personal style, living in the moment, and resisting the social pressure they felt was being exercised on them to behave a certain way were examples of how they expressed authenticity. Authenticity's value and emphasis was especially interesting because it was predicated on the possibility of inauthenticity – shaping oneself in agreement with the demands of others rather than your own. The journey towards creating authentic selves was central and often portrayed as deeply challenging. Moreover, professional and material life emerged as a particularly salient obstacle, for life still took place within institutions that demanded a type of performance that did not allow them to be fully who they felt they really were internally, demanding that they act a certain way. The word "performance" took on a special importance, for it appropriately encompassed both the need to compete and achieve status at work and the requisite that one perform or act a role that was given to them in order to succeed at doing so.
- Two general coping strategies emerged to help deal with the sense that internal search for meaning, identity, and purpose was in conflict with the external need to perform. The first was a decision to postpone life by sacrificing the present to be able to live a full life in the future, for example, by choosing to accumulate material wealth for the future. The second was to accept the tension and to try to enjoy the journey by consuming experiences that provide the feeling of depth and authenticity. None of them, however, were truly solving the problem. Even if one decided to postpone life, one was still aware that the future was not guaranteed and so still wanted to live fully in the present, and even if one accepted the tension and tried to cope, one was alone and had little time to devote to nurturing the quest for the growth and expression of the internal self.
- Informants created sanctuaries in their lives – times and places in their lives where they could be their full authentic selves and cultivate self knowledge; however, they were limited in time and scope, with an emphasis on the removal of suffering rather than with an objective and willful transformational pursuit. These were sacred spaces for them, offering respite from the need to perform, but as opposed to spiritual seekers' communities, practices, and rituals, they were cast as places of rest and withdrawal from the demands of "real life" rather than as spaces and times of growth, wonder, and exploration. Examples included hiking in nature, unstructured play, therapy, cooking, escape time with childhood friends, and practicing sports.

- Spiritual movements and communities and personal transformation services and books were off-putting. Their esoteric language, distance from scientific truth, cultish associations, and the possibility of ulterior commercial motives were especially problematic.

As the consultants interpreted the data, they were surprised to find that despite having met radically different people who were not on any kind of mystical spiritual path, they all felt a core tension between discovering and being themselves and being successful in the world. Informants in New York City who were not on a spiritual or personal transformation path were aware of this tension and intending to devote more time and effort to discovering and cultivating themselves from the inside out, but they were unsure of how to do it, lacked discipline, and found the available services and communities devoted to it unappealing. In some of them, the tension had even led to a series of private yet debilitating mental health breakdowns, suggesting that this was not an insignificant unmet need.

Unlike participants in phase one, those in New York City were not consciously trying to cultivate or modify their relationship with reality and were not even open to the possibility of a practice that could make it possible, but they were spending much of their resources attempting to cultivate and modify external reality – their stock of capital and their sanctuary places and activities – so as to help increase the present and expected future harmony with their internal selves.

The ethnographic data suggested that although outwardly successful, well adapted, and happy people were not conceiving of their life quest in explicitly spiritual or personal transformation terms, they were deeply involved in a challenging private struggle to explore and deepen their authentic sense of internal self and reconcile it with the situation, needs, and control over their external reality. Even the desire for material wealth, which they overwhelmingly used as justification for their lifestyles choices and major life decisions, was one which they cast within the logic of this struggle; accumulating enough of it to eventually be able to liberate themselves from the need to work for others was the perceived requisite to achieve a full life, i.e. accumulating enough capital to own their own time and gain the freedom to pursue a self-chosen goal, a desire most commonly expressed as the wish to become an entrepreneur.

It appeared, then, that there might indeed be more room than expected within mainstream U.S. culture for the introduction of a mystical spiritual philosophy in the form of a service business which could target the need for harmonizing and exploring the seemingly turbulent rift between internal and external self. Before thinking about how to design it so as to overcome the cultural resistance to the possibility of a mystical and spiritual epistemology, however, the consultants wanted to validate their ethnographic observations and build a robust evidence-based theory that would explain what was going on and orient project future scenarios.

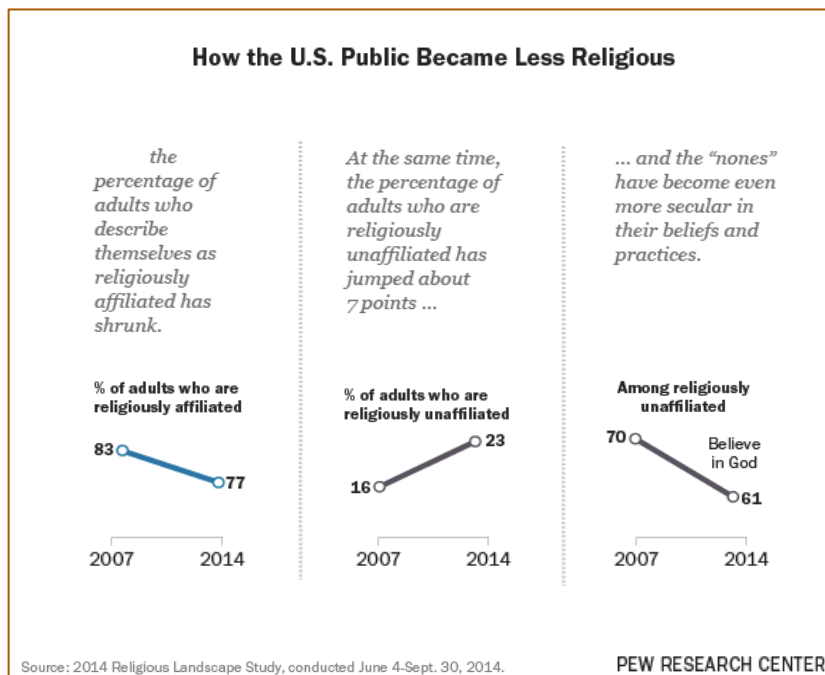
PHASE 3: SOCIO-HISTORICAL ANALYSIS AND PREDICTIVE MODELING

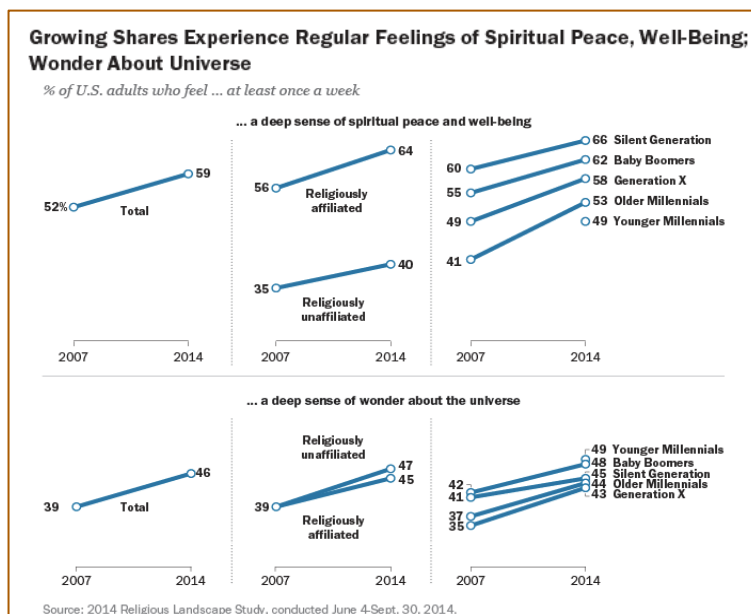
Could it be that what the ethnography had shown was part of an initial crack in U.S. culture's positivistic mode of relating to reality, and thus the beginning of a change in culture away from rationalist and towards mystical ways of knowing and being? Was it possible that within U.S. mainstream culture there was a growing need to go beyond the scientific

positivism that held that the real could be reduced to the observable and the falsifiable and to accept mystical beliefs and a cultural view of reality as shaped and alterable by belief? Perhaps deep forces made invisible by a self-obscuring system or the slowness and grand scale of changes were at work, a tectonic shift that could become the basis for the investment case the founders needed to build and the explanation for a variety of other observed cultural shifts.

Having used the power of ethnography to zoom deeply into people’s internal and local lives, the consultants began to model a hypothesis of what might be emerging as a social need to reconnect with internal truth and go beyond the material solutions that rationalistic modes of relating to reality offer. In order to complete the picture, they now needed to zoom out both temporally and spatially to place the findings in the context of how and why western culture might be changing. This would let them generalize their findings and build a predictive theory about the future evolution of spiritual and personal transformation needs.

The first step and low-hanging fruit was to look for society-wide statistical evidence of a broad cultural shift. Surprisingly enough, this was not hard to find. Survey data showed that from 2007 to 2014 Americans had simultaneously moved away from organized religion and towards spirituality, having what could be interpreted as increasingly common mystical spiritual experiences – internal feelings of spiritual peace, wellbeing, and wonder about the universe that were not rooted in external or rationalistic observations.





The consultants noted that the simultaneous shifts were of historically unprecedented magnitudes: In only seven years, 6% of U.S. adults had stopped identifying as religiously affiliated, and among the unaffiliated, belief in God had dropped by 9%. At the same time, 7% more U.S. adults reported experiencing regular feelings of spiritual peace, wellbeing, and wonder about the universe, a phenomenon true both among the religiously affiliated and the unaffiliated, and growing faster among younger generations. A tectonic shift did indeed seem to be happening under the surface across U.S. culture. The next question was what was driving it and why.

As a starting point, the consultants chose to carry out a socio-historical analysis to trace the history of personal transformation. Just like ethnography's power to build insights into cultural realities by rendering the familiar strange and the strange, familiar, history can be used to treat as strange one of today's largest and most familiar industries and its rationale—the idea of fitness as leisure – to determine whether the forces that led to its emergence were active today. Looking at how and why today's established personal transformation industries and philosophies such as gyms and fitness emerged in the first place, they thought, could offer clue as to the nature and dynamics of the driving forces behind the need for them.

Physical fitness gyms emerged as a mid-19th century rarified luxury for elites that responded to the rise of white-collar work and sedentary professional lifestyle (Garber 2013). Before that time, economic value was created by work done by muscles. In a world in which only blue-collar work was possible, physical activity and fitness were an economic necessity and the way human worth was conceptualized was intimately connected to the capacity to perform manual work. With the invention and proliferation of the steam engine, however, the means of work of most European and U.S. men, which was also the way they built their identity and how they felt their social value and self worth, came under threat. Even if the muscle power of machines was far from actually endangering the livelihoods of workers, the

possibility that it might enter into the collective imaginary triggered an identity crisis that reached deeply into what it meant to be human. If humans conceived of their humanness and self worth as tied to their capacity for manual work and to the product of their labor, the possibility that a machine could supplant both implied a substantial metaphysical threat to what it meant to be human.

It made sense that Romanticism, a cultural current motivated by the desire to elevate what it meant to be human from the material into the transcendental realm, had emerged during this time. It also made sense that those who already did not use their muscles to work, i.e. the European elites and first white collar workers, would pursue “physical activity as something to be engaged in not by economic necessity but by personal choice, [redefining fitness as] a perfectly balanced physique rather than [as] the ability to perform actual physical tasks” (Garber 2013). Physical exercise, then, had become separated from labor precisely at the time that the possibility that men would not be able to keep defining themselves as men by their labor became apparent. As it became obvious that work and value would shift from muscles to minds, cultivating muscles (i.e. physical fitness) went from being within the realm of labor to that of leisure. Having a physically fit body started to become a sign of luxury, for it signified that one did not derive livelihood from the use of muscles. Then, as white collar work became the norm in the US and western European countries throughout the 20th century, physical fitness grew to become one of the world’s largest industries and a cultural obsession. Could it be that we were on the cusp of a similar shift now that the possibility that machines would learn how to think was quickly seeping into the U.S. cultural imaginary? Were we at the beginning of a neo-Romanticism born out of a looming crisis of what it means to be human in the age of artificial intelligence? And what would that imply?

To find out, the consultants tested their hypothesis with a topline semiotic interpretation of contemporary culture. They asked whether they could interpret recent shifts in values and ideals in mainstream U.S. culture as signs that 21st century culture was responding to an unspoken crisis of what it means to be human by attempting to elevate human identity and self worth from its mundane ties to its productive output (predicated on the use of the mind to produce value) and into a more stable transcendental realm. The consultants tested the hypothesis by doing a topline semiotic sweep across contemporary cultural practices and values in the US. The method consisted of applying semiotics, the study of how meaning is formed and deposited in signs, by reading the major shifts in contemporary U.S. culture as signs imbued with meaning. To do so, they first listed the major shifts in cultural values, norms, practices, and consumption preferences from 2006 to 2016, and they then asked whether each one could be interpreted as a sign of a crisis in how people conceive of being human, of a breakdown in associating being human with producing work, or of a new search for meaning and identity outside of the capacity to think and work. Out of dozens of major shifts, they were drawn to the following ones:

- Entrepreneurship had significantly grown as a preeminent social ideal. The 20th century’s idealization of scientists, politicians, and artists had evolved in the 21st century to an overwhelming emphasis on entrepreneurs. The value of becoming an entrepreneur was related to living for oneself and making manifest one’s will in the world, and to attaining freedom from institutions larger than oneself and from having to perform according to their standards. The new U.S. heroes tended to be

entrepreneurs (e.g. Elon Musk) – people who created value from their imagination and creativity.

- The recreational use and acceptance of psychedelics as a path towards self-knowledge and self-healing were growing rapidly among the U.S. elite. The rising popularity of ayahuasca, psilocybin, and micro-dosing practices was a good example of the exploration of chemically-induced experiences that explored the possibility that humans could be spiritual creatures that could grow by turning inward and that drugs were not just producers of pleasure but agents of the expansion of consciousness.
- Electronic dance music festivals and transformational festivals, with their collective effervescence (which could qualify as a type of mystical experience) and associated anti-materialist credos, had rapidly gained in popularity. Radical new modes of behavior and social organization were being experimented in Burning Man by a growingly elite and popularized among a mainstream U.S. audience.
- Yoga and meditation, with their promise of delivering internal harmony and a more balanced life, were rapidly becoming one of the fastest growing U.S. industries, with a market value of over \$27 billion. And discourse within the world of yoga was not only about the health and performance benefits of the practice, but also increasingly about the intrinsic value of the spiritual growth that could come from yogic practice.
- The value of nature and the desire to spend leisure time in pristine nature were on the rise, analogously to the 19th century's turn to nature as a pathway to the sublime. Trail running, surfing, cross-country skiing, glamping, and eco-tourism had become the fastest growing recreational activities in both the U.S. and Europe. All are premised on the notion that communing with nature has intrinsic value and the power to transform the individual by putting him in contact with forces larger than him and more elemental than those found in rationality-driven civilization and by giving him the space and inspiration to turn inward.
- A preoccupation with authenticity and with the need to find oneself and one's purpose as an individual had grown to become a central psychological concern of young Americans. The crafting of identity and identity politics had become a U.S. obsession. And the craft movement in the consumption sphere had raised the profile of authentic brands and products and castigated mass-produced ones. All three could be interpreted as signs that Americans were increasingly thinking of their value as tied to their ethnic and individual identity and to their authenticity in self creation and consumption rather than to the product of their work.
- The new entrepreneurial elite was embracing formerly frowned-upon collective endeavors to experiment with a radical and deliberate reorganization of social norms (e.g. free love). The quest for a techno-utopia coming out of Silicon Valley was drawing close to alternative transformational festivals like Burning Man, pushing formerly fringe collectively experimental ways of being in the world to the center of aspirational culture.
- Statistical and ethnographic findings were showing that Americans of all ages were rapidly and overwhelmingly abandoning tying their identity to their work and affiliation to structures larger than themselves and were instead tying it to narratives of personal growth (Silva 2013).

- Experiences that could transform you (e.g. travel, food, sociality) had risen in value relative to the consumption of physical products, which could be bought with the rewards from work. Creating yourself and chasing experiences that would enrich you were growing in value within the realm of consumption.

An explicit personal search of deeper meaning, a turn inwards and away from the traditional institutions and authorities of knowledge creation, an explorative openness towards transcendental and introspective experiences, a weakening of the connection between work and identity creation, and the embrace and idealization of radical experimentalism and mystical experience seemed to be on the rise. And although not tied together or causally back to the consultants' hypothesis, the observations did seem to provide strong circumstantial evidence for the theory that U.S. culture is on the cusp of a discontinuity triggered by the threat of AI to how people conceive of what being human, working, and producing value means, a phenomenon similar to the 19th century's cultural response to a world of blue collar work threatened by the steam engine. In other words, if contemporary Americans were conceiving of themselves and building their identity as humans largely in terms of their capacity to think and perform valuable work, there is evidence to suggest that the conceptual emergence of AI was causing a redefinition of what it means to be human, shifting away from the ability to think and towards an exploration of affective, spiritual, and transcendental anchors. And if such a seismic cultural shift was indeed in motion, it would serve not only to explain and predict broad shifts in consumption preferences, but also as a strong case for investing in the creation of an entirely new service space of spiritual, emotional, and mental fitness as an end in itself.

The theory suggests that founders' and their community's mystical spirituality is not an isolated cultural phenomenon, but rather symptomatic of how emerging U.S. culture was reacting to a wide cultural shift driven by deep forces of secularization, identity building, and technological change. The personal struggle to harmonize interior and exterior personal realities observed in the ethnographies of phase two, then, can be interpreted as symptomatic of a growing fissure in rationalistic U.S. culture – the beginning of the need to tie what it means to be human and produce value to something other than the capacity to reason. The theory, though not unequivocal, provided compelling evidence that we were in the midst of a broad and significant discontinuous shift in U.S. culture which could generate a valuable investment opportunity in a personal transformation service that would offer mental and spiritual fitness as a luxury. It was a case for investment in what could be the beginning of an entire industry.

Now that the consultants had an understanding of both the mystical spiritual phenomenon and the forces in U.S. culture driving the demand for it, the project's remaining challenges were to size the investment opportunity and to strategically design a venture that would deliver the founders' mystical spirituality in a way that would be appealing to the mainstream, bypass contemporary culture's ideological resistance, and compete successfully against existing and potentially new contending offerings.

PHASE 4: SEMIOTIC COMPETITIVE ANALYSIS, STRATEGIC VENTURE DESIGN, AND QUANTITATIVE MARKET SIZING

The consultants decided to organize the last phase in two parts. First, they would map all potential competitors and take their existing knowledge from previous phases to design a concept for the venture which would meet the U.S. market's emerging spiritual needs and successfully compete against existing and potential new market players. Then, they would quantitatively size the market opportunity to justify the investment in the venture.

Sizing a market and mapping competitors' positionings in it is generally a straightforward process when done within established industries with clear boundaries. It is a task widely performed by strategy and marketing consulting professionals following established business practices. The consultants, however, were faced with an industry that would be large and meaningful but did not yet exist – an entirely new space of spiritual personal transformation which would likely combine services that already existed with new emerging ones to eventually coalesce in the mid-21st century's equivalent of the 20th century's physical fitness industry. As a result, they would have to creatively use the ethnographic, socio-historical, and semiotic findings to draw boundaries, making an entirely new industry tangible.

Step one required finding all existing potential competitors across all relevant industries and mapping which culturally resonant narrative each was using to appeal to mainstream culture; in other words, what their positioning in the market was. The consultants did this in two-steps:

1. They used the socio-historical analysis to create a criteria for existing industries and services that were already serving the emerging spiritual need identified in phase two as a tension between internal and external reality, but that were not yet grouped together as an industry. The group included everything from EDM music festivals and personal coaching to a variety of sports, spiritual content producers, and lifestyle brands. As opposed to listing entire industries (e.g. physical fitness), only the specific players within each that were identified as addressing the spiritual needs identified in phase two were selected (e.g. Crossfit, EDM music festivals and nature sports yes; basketball and country music fairs no).
2. They performed a semiotic pattern recognition analysis on the identified players by grouping them into larger categories of same or similar cultural narratives. In other words, they saw each company as a sign imbued with meaning telling a culturally resonant story about itself (e.g. yoga: creating a harmonious life in a non-harmonious world; Crossfit and coaching: increasing performance to tackle external reality challenges). And they grouped all of them into a handful of semiotically categorized codes.

They found they could group all players into three high level semiotic spaces, and they also found that neither was ideally suited to meet emerging spiritual needs. Each of the three cultural narratives demanded something from its users that was not aligned with the desire for internal-external harmony and transcendental individual self discovery that the ethnographic research had uncovered, so that while these services were meeting Americans' present personal transformation needs, they were not ideally positioned for the cultural shift

to come. There was a fourth space, however, largely unexploited, that could combine the need for deeper and more authentic meaning, the luxury of spiritual and mental fitness for their own sake, and the path towards entrepreneurship in a single resonant cultural narrative. Playing within this space, the consultants concluded, would simultaneously meet existing needs and provide a path through which to deliver the founders' mystical spiritual philosophy as a service in a way that would differentiate and insulate them against competitors. They built a semiotic definition of this fourth space that described its cultural narrative, target audience, brand anchors, and boundaries within which the new offering would be articulated and positioned – a high level strategic document that the venture's execution team could follow.

Now that the consultants had created a competitive positioning, it was time to take all the insights they had gathered so far to create a concept and value proposition for the new venture. They triangulated the insights from all phases and developed a high level concept based on the principle that exploring the body, mind, and spirit potential for their own sake among a community of people would become the ultimate luxury in the coming era of thinking machines, and that packaging the founders' mystical spirituality within the competitive positioning they had crafted would guarantee its mainstream appeal and bypass cultural resistance to current spiritual offerings. The concept's value proposition was based on providing an intelligible and intelligent system of services built around a membership-based community, with both the services and the community specifically designed to ease the tension between discovering and being yourself and being successful in the world. The concept's services and community would provide members with the skills and techniques to explore themselves introspectively, intellectually, emotionally, and spiritually, and with the skills and network to pursue opportunities to self-express and embark on entrepreneurial quests. And the founders' mystical spiritual philosophy would be packaged and delivered through some of these services and as media content. Based on the concept, the consultants worked with the founders to outline the venture's curriculum offering, business model, membership recruitment criteria, experience design principles, and operations, and to write the externally-facing copy to present to investors.

The final task of the project was to build a quantitative sizing of the investment opportunity for the founders to use as an investment case. The traditional market sizing process used by traditional business consultancies could not be used, however, because what needed to be sized was a market for spiritual transformation that did not yet exist. It was interesting to note that the result of the sizing would be close to a venture capitalist investor's dream – a highly meaningful new market that will likely emerge but that still does not exist. The problem was that such investors want to see both evidence-based numbers for the size and growth of the opportunity and evidence for the fact that it will emerge. The work of phases two and three provided the latter, but in order to build the former the consultants had to creatively design a way to size the market for personal spiritual transformation that they had theorized would emerge out of an impending seismic cultural shift.

The consultants used the insights from the ethnography of phases one and two to find a set of market segments that could be used as proxies to size the commercial opportunity; in other words, they drew the boundaries around the hypothetically new industry by using the ethnographic insights to find the existing industries that were already targeting what would become spiritual needs. The ethnographic insights provided the set of needs that were

spiritual but that were not being articulated as such yet and that were being driven by the cultural shift identified in phase three. These were needs such as crafting an authentic identity, finding harmony between internal emotions and external reality, etc. that non-spiritual (phase two) Americans experienced as personal psychological and lifestyle challenges and that spiritual (phase one) Americans experienced as spiritual challenges.

Once they listed those needs, the consultants identified the existing market categories that were already creating value by serving them. They saw that they fell into four vertical categories: cultivating body, cultivating body-mind, cultivating mind, and cultivating spirit. Each of them contained a number of industries (e.g. wellness spa's and yoga within cultivating body-mind; organized religion and self-improvement within cultivating spirit). After mapping industries under the four verticals, they split them into two groups: target markets – those that had significant overlap with the venture's concept in how they would serve the needs (e.g. personal coaching) – and adjacent market segments – those with less of an overlap but which could serve as good proxies to gauge the venture's long term market potential (e.g. psychotherapy).

Following traditional market sizing methodologies with data gathered from industry reports, the consultants calculated the total market opportunity by adding the size of the target markets in the U.S. and calculated their combined projected market growth rate. They then calculated the combined size and growth of adjacent market segments. Interestingly, they found that while the combined size of adjacent segments was over ten times that of the target markets, the growth of adjacent segments was negative, while that of target markets was positive and over 10%/year. This was a sign that segments that were already positioned closer to the venture's value proposition were growing, while those farther away from it were shrinking – another piece of evidence in favor of the predictive cultural shift theory of phase three.

Finally, the consultants used data from the industries identified to size the addressable market by calculating the size of the target group and its willingness to pay, and they built a revenue and cost structure, calculated break-even points, and projected different roll-out scenarios with a range of liberal and conservative assumptions. In the end, by triangulating the insights from the ethnographic research with traditional business tools, they were able to deliver a market-sizing model for an industry that is still inchoate but that will become highly meaningful.

As a result of their ability to use the insights derived from ethnographic, semiotic, and socio-historical research and to integrate them into traditional business methodologies of investment casing and market sizing, the consultants had given the founders an evidence-based investment case and a business venture concept that they would go onto bring to reality.

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Cases 3 – New Ventures and New Markets

Outside the Bubble: How a Coastal Technology Company Built Empathy for Its Small Business Owner Customers in America’s Heartland

KATHERINE LEE

Square, Inc.

This case examines an effort by San Francisco-based Square to gain a better understanding of its customers who reside outside of major metropolitan areas. The first part of the case provides detail on research: a mobile ethnography study of small business owners conducted over a two-week period at the end of 2016 followed by in-person interviews of a select group of participants. The second half offers a discussion of the research findings, including the attributes and perspectives shared by small business owners. The research and analysis suggest that the sense of community in small towns colors every facet of small business, from the deep connections that proprietors feel with their customers, other business owners, and their community as a whole. The commercial and social aspects of businesses in small towns can’t be separated. Often, businesses act as a force that helps keep the community viable. Moreover, the needs of small business owners in the heartland differs from their counterparts in larger urban areas. With these findings in hand, Square undertook a coordinated internal communications campaign to ensure employees throughout the company became more familiar with the needs of its customer base.

INTRODUCTION

The 2016 U.S. presidential election and its unexpected result blindsided many Americans. The country awoke on November 9 to a reality that few—including the majority of pollsters and pundits—believed would come to pass. A profound sense of disconnection settled over households across the nation as residents wondered, “How could I have been so wrong? And how could my beliefs be so different from a significant portion of the electorate?” In the aftermath of the election, attention focused on the divide between voters in red and blue states. A popular explanation was that many Americans reside in a bubble, interacting with friends and colleagues who share common values and beliefs, while ignoring life outside their immediate circle.

For the Insights team at Square, the election raised a fundamental question with implications for its business strategy: How well do we know our customers? The San Francisco-based fintech company was founded in 2009 with the goal of providing payments products and other solutions that help small businesses operate and grow. A key part of Square’s purpose is the economic empowerment of entrepreneurs and small businesses by facilitating commerce. The company has enjoyed strong growth guided by top talent with expertise in technology, design, and innovation, but its continued success depends in part on the ability to develop products and services that address the specific needs of small business owners. As Square’s employees are based in an urban center, the Insights team worried the aspirational customer persona that informed product development and sales efforts—a young, technologically savvy owner of a coffee shop or hair salon—might be disconnected from its actual customers. After all, how much could an employee at a Bay Area tech company have in common with the average small business owner in middle America?

To explore this issue, the Insights team looked at voter breakouts at a county level and concluded that the distinction was more fine-grained than red vs blue states. Analysis of even the bluest states suggested that the real divide existed between densely populated urban centers and the vast rural areas that surrounded them. In parallel, the Insights team began by conducting a review of its customer base. Square found that 85 percent of its “sellers” (how the company refers to its customers) were located outside the 25 most populated U.S. cities—a surprising initial result that begged an in-depth assessment of these customers: the issues they faced in building their business, the unique challenges presented by commerce in smaller towns, and what their day-to-day lives were like. The Insights team realized it needed to undertake a research effort with two related goals: quickly gain insight into sellers “outside the bubble” and ensure that workers across the company had greater visibility into the customers they were trying to serve.

The Insights team decided to pursue an ethnographic study that could assemble a more detailed picture of its sellers outside of urban centers, an ambitious project for several reasons. The study needed to produce insights from sellers across the heartland—a huge swath of the country between the coasts with a broad range of geographies and demographics. However, sending team members into the field for extended periods of time was not a possibility. Therefore, any research approach would need to connect and engage with participants remotely. In addition, the timing posed a challenge. The company aimed to complete its study and share results internally by the end of Q1 2017, meaning that part of the research would have to take place during the year-end holiday season when small businesses are either at their busiest or closed altogether. For small business owners, there is really no separation between personal and work life, and their schedules are unpredictable, so finding enough sellers to participate in the study would be difficult. In a typical study, the recruiting rate for small business owners is only 5 to 15 percent. Once the Insights team was able to secure enough participants, it also needed to find ways to gather information that didn’t require business owners to commit too much of their time.

The Insights team also recognized that conducting the research was just the first step; it also had to ensure that the findings fostered a greater understanding of its customer base across the whole company. It was critical to share insights from the research across the company in an accessible, engaging way so that employees could integrate the findings into how they approached their jobs. So the Insights team had to think about ways to share its analysis with different levels of the organization in novel ways. Traditional presentations with bullet point lists would be unlikely to spur employees to infuse this more detailed view of Square customers into their daily activities.

RESEARCH TOPIC

A recurring theme in the Insight team’s discussions was community: the cultural beliefs, attitudes, and values that provide the diverse residents of any town with a sense of belonging and common cause. The concept was fundamental in understanding the differences between large cities and small towns, the ways in which community influences commerce, and the role of small business owners in reflecting their community and working together to improve it.

Following the election, the team became interested in *Hillbilly Elegy: A Memoir of a Family and Culture in Crisis*, J.D. Vance’s examination of the white working class in Rust Belt towns. However, the team had an understanding from past projects that Square’s small business

customers were not representative of those portrayed in Vance's memoir. Instead, their roles and situations were more aligned with the towns described in Robert Wuthrow's *Small-Town America: Finding Community, Shaping the Future*. Wuthrow wrote of business owners in small towns, "The service class is not a bland category of managers and businesspeople but instead is defined by occupations locally considered to be of benefit to the community: teachers, health workers, accountants, bank employees, retail store owners, and the like. Members of the service class are visible to the community as a result of the work they do."

Over the past several decades, several trends had combined to reshape the concept of community. Small towns had been defined for generations by main street, a hub of not just commerce but also social interaction. First, the rise of big box stores such as Walmart had decimated the businesses that populated the main streets of small towns across the country. When these businesses failed, they took with them more than the main street shops. Also gone were the local products that embodied a small town's culture as well as the foot traffic that on evenings and weekends allowed residents to come together and reinforce shared values. Second, an increase in urbanization, which led many ambitious and curious residents from small towns to relocate to cities, drained many small towns of the talent and vibrancy that had once existed. Last, the rise of the Internet and e-commerce offered both unlimited access to a range of products and the ability to shop from the comfort of one's home. While high school sports, church socials, and holiday celebrations still gave people opportunities to interact and celebrate their common bonds, many residents had to grapple with the loss of their town's commercial base.

As the largest cities continued to grow and thrive, the gap between what community means in different places has also widened—to the point that the concept of community can vary quite considerably. The challenges of building a business in a large city can bear little resemblance to those for proprietors in small towns. Further, the responsibility of commerce to give back to the community and reflect its values can take vastly different shapes.

The Insights team posited that by gaining a better understanding of community and how businesses fit into the local ecosystem, Square could develop products and solutions that were more closely aligned to the needs of its customers.

RESEARCH

To complete the required ethnographic research in the compressed timeline, the Insights team decided to pursue a hybrid methodology (a combination of mobile ethnography and in-person interviews) that unfolded in two sequential phases. In the first phase, which took place during a two-week period over the 2016 holidays, Square's Insights team partnered with dscout, a qualitative research technology firm, to use its remote research platform to conduct a mobile ethnography study. The Insights team and dscout structured this research phase to ensure that participants had the necessary context, direction, and visibility into the project's goals to produce detailed, authentic responses. To do so, they offered guidance and tips so that participants could be their own cameraperson and use their judgment in deciding what is most interesting and important to share.

Dscout and the Insights team drew on their collective experience with mobile ethnography campaigns to encourage participants to share details about their lives. This research included a series of missions—dscout's term for sets of responses and activities requested from participants—that explored different topics in a specific sequence.

In the second phase, Square augmented its findings by arranging in-person interviews with a subset of the initial participants. The mobile ethnography phase not only highlighted concepts that would benefit from further examination but also forged strong connections with a number of the participants. This familiarity and goodwill gave the Insights team a head start for the subsequent field interviews.

Mobile Ethnography—Background

Mobile ethnography has become a valuable way to gather insights from a dispersed group of participants. Thanks to the rise of mobile devices, this type of research offers companies a relatively inexpensive way to hear directly from individuals. Several common misperceptions about mobile ethnography have emerged: it is an impersonal survey tool that allows users to filter or selectively edit what they share; without a researcher on hand to interact with subjects, mobile ethnography can be less enlightening than interviews; or it can be difficult to understand the context of the submissions. As a result, mobile ethnography can be perceived as “ethnography lite” that doesn’t yield rich data or deep insight.

When structured effectively, however, mobile ethnography offers a platform that enables researchers to capture context and detail from participants that would be difficult to collect in person. In this way, mobile ethnography is not always the best research that could possibly be done, but it is a way to do research that might not otherwise be completed. The use of a personal mobile device can often remove any filters or preconceptions among participants, thereby producing entries that have a notable immediacy, intimacy, and authenticity.

Research Methodology—Mobile Ethnography

The first phase of mobile ethnography consisted of three missions. The initial warm-up mission asked respondents about themselves, their business, and their community. Open-ended responses were encouraged in the hopes that participants would get creative with their answers and offer a greater variety of details. Participants were also asked to record a 60-second video about their journey to becoming a business owner. The written responses and video were collected via mobile app and automatically uploaded to dscout’s platform, which aggregated the material by respondent for ease of review and analysis. After each submission, the Insights team would use the platform to communicate with the participants. The team sought to maintain a dialogue with participants by inserting follow-up questions and offering encouragement, support, and validation. Often, the interaction resulted in participants revealing even more details about their thoughts, feelings, and actions. This “therapist-like relationship” conveyed the willingness of the Insights team to invest emotionally and also helped to direct the missions remotely.

The second mission delved deeper into the communities in which participants live and operate their business. Individuals were asked to create four to five 30- to 60-second videos on their community and to note whether each video related to family, friends, neighbors, customers, special places or objects, other businesses, events, or traditions. The willingness of participants to share personal details and invite the researchers virtually into their homes demonstrated the rapport and trust that had been established between them and the Insights team.

The last mission asked participants a series of open-ended questions about the history of their community and the “bubble” they live in. Through these questions, the Insights team hoped to learn more about the common misperceptions of small towns through the eyes of small business owners who live there. With this line of questioning, the Insights team sought to pinpoint the factors that have a real impact on business owners in small towns as well as specific challenges they face in building their business. To complement the written responses, participants were asked to record a one- to two-minute video on the bubble they lived in, including their aspirations for their community and common misperceptions about life in small towns.

In total, this research phase produced more than 150 entries across the three missions, which included short video clips, photos, and reflections from participants. The mobile platform had a number of benefits. Since the participants were free to respond according to their own schedule, over the course of the study they got more comfortable with waiting for situations to occur that addressed the topic. Dscout’s methodology involves asking participants to generate multiple entries answering one question. The question serves as a trigger, prompting participants to pull out a mobile device and record the moment as it happened. Similarly, without the interaction and real-time direction of in-person interviews, participants likely felt more comfortable sharing intimate details of their lives rather than putting on a public face. As noted above, since the Insights team was able to use dscout’s platform to share feedback and direction with the participants, over the course of the research they felt as if they were telling their stories to actual people.

Mobile Ethnography—Benefits

The contextual details and cues included in the videos also spoke volumes about the lives of business owners in smaller towns. The juxtaposition of the business environment and home was particularly enlightening. Mike, proprietor of MYT Motors in Columbia Falls, Montana, included videos of his small home bustling with his whole family on New Year’s Eve, a delightful contrast to his shop with the barren but beautiful Montana landscape in the background. The interconnectedness of home and business life was also striking. Jana of Midwest Dance Mechanix in Wichita, Kansas, gave a virtual tour of her dance studio that included her office stacked with her children’s toys. Karen of Wildflower Quilting in Greentop, Missouri, panned around her homey quilt studio to reveal her son, whom she homeschools. Latoya, the owner of Blessed Hands of Design in Jonesboro, Arkansas, submitted a video of her hair salon that shows her girls playing on the floor with hair beads.

The video submissions also capture other contextual details about environment and relationships. For example, Alan of Aker Woods Company in Piedmont, South Dakota, describes the older people in his community as “tough.” That observation comes to life when he’s driving and showing his older neighbor shoveling snow. The videos also paint a vivid picture of the downtown areas in small towns and the level of foot traffic and population density. Relationships also come to life. The closeness of small towns is conveyed in the banter and lighthearted exchanges when participants introduce other members of their community. James and Brenda (Sonrisers Popcream, Clarinda, Iowa) included interviews with their customers and fellow business owners, who reinforce the fortunes of residents are intertwined. Similarly, in Alan’s video he stops by to say hi to the ladies at the Blue Line Diner in Newell, SD.

The mobile platform expedited analysis. When participants recorded their submissions on mobile devices and uploaded them to an online platform, Square's Insights team could easily review and tag submissions by topic or keyword. The team could then aggregate all of the material from participants on a selected subject and analyze, identify, and share findings on common themes across small towns.

A review of the intimate portraits of small business owners raised questions that bore further exploration. For example, why did participants choose their town to launch a business? How does their relationship with the community and competitors influence how they conduct their business? What's the role of government and technology in supporting business growth? And what are the tensions that business owners in small towns have to address? The Insights team sought to gain a better sense of how participants were dealing with these issues as well as their aspirations for the community.

Field Interviews

The Insights team had several goals for the second phase of research:

- Validate, challenge, and further develop selected themes from the mobile ethnography phase.
- Observe sellers in their natural surroundings—their business, home, community, and town. Square's team had the opportunity to spend hours with each person to learn more about the journey of small business owners.
- Gain a more holistic view of the concept of community by hearing the perspective of other small business owners and influential community members.

From participants in the first phase, the team selected a handful of small business owners who agreed to in-depth interviews. The team spent time with participants at home and their place of business, shadowing them as events unfolded rather than conducting formal sit-down interviews. These sessions were filmed by Belmondo Studios for the dissemination of findings. A couple of factors made these interviews particularly fruitful: First, several participants were located in a geographic area that included Wichita, Tulsa, and Oklahoma City, and this concentration helped to minimize total time and travel costs. Second, the dialogue and relationships that the Insights team had established during the first phase of research led to richer interactions with participants. This rapport was illustrated by the actions of several sellers, who went beyond the field interviews to introduce the Insights team to their colleagues and friends. For example, at a One Million Cups event in Wichita, sellers announced the Square team's presence, leading a number of people to share their experiences and express their gratitude that employees had taken the time to visit Wichita.

While in field, the Insights team had an ongoing discussion about the themes. Members debriefed at the end of each day or in the car in between stops. These conversations helped to distill and refine the themes coming out of field. A lot of time was spent reviewing and pulling anecdotes and quotes from videos (both from the field interview videos and in revisiting at the mobile ethnography submissions) to support the themes. While in the field, the team recorded time stamps of the most notable and relevant quotes to facilitate review and analysis. The interviews were all so rich that the team watched nearly each one again, taking notes along the way and then sorting them into themes.

KEY FINDINGS AND TAKEAWAYS

The combination of mobile ethnography and field interviews provided the Insights team with a deep and nuanced understanding of the values, principles, and priorities of business owners in small towns. Through analysis of both research phases, the Insights team identified four areas that demonstrated how sellers in cities outside the bubble differed from Square’s aspirational customer persona.

Many Sellers Live Where They Do Because It’s a Conscious Choice

Small business owners have made an active decision to establish their business in a town based on a number of factors. For example, they often feel a sense of pride and belonging in their town: it’s where their family lives, where they were raised, where their friends still are—where they feel at home. Most business owners in small towns don’t aspire to live in a big city even when the business landscape in their town is challenging. North Tulsa, for example, has struggled to attract businesses and investment and recapture its “Black Wall Street” heyday. Still Denise, the proprietor of Splendid Consignment, chose to open her business there in part because of her connection to the area. She noted, “North Tulsa is a proud community with so much interesting history. It is becoming more diverse and is slowly developing into the thriving economy of the past. This is because of individuals like myself that were born and raised in North Tulsa and are passionate about the quality of life in our community.” This connection to the history and traditions of a community were echoed by other participants, including Alan, the owner of Aker Woods Company. He reminisced about growing up on the land in South Dakota. By ensuring that his business respected the land, he believed he could gain respect from people in his community.

Another factor cited by small business owners for their location is that certain cities provide unique opportunities for entrepreneurs to build and expand their business. Merritt, the owner of Merriment Stationary in Tulsa, remarked, “Tulsa has been consistently ranked one of the best cities to start a company and/or be a female business owner. Several factors that contribute to this classification are cost of living, available resources (entrepreneurial groups/hubs, alternative funding, etc.), and a strong 20s/30s professionals group that works to attract/retain young talent.” The ability to navigate a smaller town and gain access to resources and networking groups can have a huge impact on small businesses. Even if the volume of customer traffic is lower in a small town than major urban centers, benefiting from the experiences and connections of other business owners can be an important advantage. As Merritt commented, “The phrase ‘community over competition’ is (overly) used on #girlboss Instagram captions and inspiring blog posts, but Tulsa—as a collective city—truly does work together. I’ve been so humbled by both my welcome here and by all the shop owners happily sharing my new venture with their audiences. Now more than ever, it’s important to work with other businesses in my community and to determine/anticipate precisely what my customer’s needs are.”

The research also revealed that for many participants, the overriding motivation isn’t just personal profit. Instead, they are invested in the long-term viability and growth of their community and see their business as a way to contribute to this goal. Raena, the owner of

Roxy's Ice Cream Social in Oklahoma City, said, "We have such a great community of people that are really excited about shopping and dining local. To be a part of the renaissance of what we know as the Plaza District is such a warm feeling. It's our neighborhood and it is only getting better." This pride and ownership in the town's prospects also influenced the site selection of Kate and Steve, owners of Hopkinsville Brewing in Hopkinsville, Kentucky. As Kate explained, "One of our biggest motivations for choosing Hopkinsville to locate our craft brewery was to make the town better. I (and my husband/business partner) make decisions and choose our courses of action based on what's best for people and the community and our quality of life, as opposed to financial gain."

The key factors that influence where small business owners locate are not just profit but also the opportunity to build community.

The Relationship between Small Businesses and Their Community Is Highly Interconnected

In larger, coastal cities, many entrepreneurs launch businesses with an aggressive growth plan that ultimately ends with an exit strategy, such as getting acquired by a larger company. The potential of a huge payday down the road contributes to the innovation and disruption that are commonplace in companies in Silicon Valley and other startup hubs. Small business owners in the heartland typically have vastly different goals: rounds of venture capital funding or an initial public offering aren't just unlikely, they are beside the point. The study's participants embraced the ideals of working hard and being friendly, selfless, and humble, among others. Building a lasting business with strong community ties while maintaining a sustainable work-life balance reflects these ideals.

Frank and Levi, the founders of FNL Denim in Wichita, Kansas, found the support of a small community instrumental in building their business. Levi explained, "Not a lot of people are doing what we're doing. It's a lost art, and we have our community to thank for coming out and supporting us." They attribute this interest in supporting local businesses as a sentiment missing from bigger cities. Frank recognized the difference in the tenor of conversations they had about their business. "That's the attitude out on the coast. It's all about 'What can you do for me?' When we came back to Wichita, it was all about 'Who are you? What do you do? I want to learn from you.'"

Often, businesses serve as a gathering spot for life events and local activity. Kate of the Hopkinsville Brewery said, "One of the reasons we love being in Hopkinsville is that they're not just customers, they're friends." In one of her video submissions, she showed a member of the military who was getting ready to be deployed the next day and had stopped by the brewery to say goodbye. Similarly, Raena shared a photo of a couple who got engaged at her ice cream parlor. When the Insights team met Merritt, she was preparing for a customer's 40th birthday party and was so humbled that someone chose her store for the event. Dana of Dana's Shaved Ice and More in St. Clair, Missouri, was leading a charity drive over the holidays, with her store being a drop-off location for donations. She noted, "The ice cream shop is a big part of the community. We have a lot of community events, which is what keeps us going [and supports the business]."

This sense of responsibility to the community affects how entrepreneurs conduct their business. For example, Jana of Midwest Dance Mechanix in Wichita remarked that she works to keep classes affordable to give every girl an opportunity to learn to dance. Raena at

Roxy's felt it was important for her business to offer a \$3 scoop of ice cream. Several participants mentioned their efforts to take care of the less privileged. And Warren, the proprietor of Espresso to Go Go in Wichita, emphasized the concept of community over competition: "We could have competition across the street, but we choose to act as a community. There's Reverie; they have great products and equipment. There's much more to offer when you choose to think about community rather than competition." Joe, the founder of Operation Renovation in Massillon, Ohio, served in the military before going to school for business administration. He started a home remodeling company to create jobs for veterans returning from overseas and be able to give back to the community.

The Fate of Entrepreneurs in Small Towns is Largely Determined by Factors Beyond Their Control

While businesses in larger cities have the advantage of a more diversified economy and a deeper customer base, in small towns a lot of things need to fall in place for a business to be successful. In many cases, factors such as the loss of a major employer, an industry-wide slowdown, or a flagging state economy can have a significant, adverse impact on a company's viability. Weathering the economic cycle of small towns is a major challenge. Dana noted, "Years ago this area was filled with factories. For example, both my parents worked at a gear company for over 35 years. One day they were told their company was moving to Mexico. Factories all around were slowly leaving." Amanda of Daydream Face Painting in Murfreesboro, Tennessee, had a similar experience. "Our community is finally growing again! The recent recession hit this area really hard. What once was a booming and vibrant economy with new houses and businesses popping up everywhere in Murfreesboro basically went into hibernation for the past decade. We lost a lot personally as well: our clothing business failed and we had to come up with new avenues to keep our family afloat." When these downturns occur, they can affect foot traffic, the purchasing power of the local customer base, access to loans—all of the factors that undermine long-term prospects.

Uncertainty is an ever-present consideration when making investments in the business. Trellis, who operates Modern Homestead in Reedsville, West Virginia, noted, "Being located in West Virginia, I feel a lot of uneasiness with the future of coal mining. Over the past few years, there is definitely a slowing in that industry locally. We have experienced some sparks of activity in the oil and gas industry, but it was short lived." For better or worse, the fate of small businesses is inextricably linked to the local economy.

Other participants were frustrated by the policies at the state level that were impediments for the progress they had been making in their communities. Jana from Wichita, Kansas, noted the detrimental impact of the state's priorities. "Our current governor has tried an 'experiment' with the state's economy, and it's been a complete failure. My husband is a high school physics teacher, and it's been difficult to watch the resources, funding, and, ultimately, qualified teachers disappear from our state. Wichita is trying to rebrand itself—be a little hipper, more edgy, and cool. I feel that within the last year there has been a surge of young entrepreneurs opening breweries, restaurants and boutique shops, which I think has added to the appeal and livability of Wichita. Although many are frustrated with our state's leadership and economy, there are so many who are working to make our community stronger."

When participants were asked what impact federal policies and activities would have on their business, the majority responded that they would be largely unaffected. Mike of MYT Automotive said, “I believe I will continue doing business the same as I have through previous presidents.” Participants did express some trepidation about how policy changes at the national level could make their lives more challenging. Lindsey, owner of Feel Good Products in Papillion, Nebraska, was worried about the adverse impact of federal policies. She said, “It could make it hard for me to purchase health insurance for myself because I have very little income as a new small business owner.”

Other participants acknowledge that while they may live among people who embody the stereotypes of rural residents living on government assistance, they stand by their values of hard work and refuse to take shortcuts.

Small Business Owners Must Adapt to Changing Consumer Tastes and Increased Competition

In larger cities, consumers have become accustomed to everything they could possibly want—nearly infinite selection of products and next-day and same-day delivery. Brick-and-mortar retailers in urban centers have evolved their business models and become active in both traditional and e-commerce channels, all in an effort to keep up with companies such as Amazon and Walmart. The research found that businesses in small towns have also been affected by the shift in consumer expectations and the incursion by online retailers into their space. Lindsey of Feel Good Natural Products said, “People want fast and cheap products and food that simply isn’t attainable within a small business model. Small businesses that try to compete with the prices of chain stores generally don’t stay open long.”

Small business owners recognize that they need to elevate their online presence and augment their physical stores to create a unique experience for customers. Merritt reflected on the changes necessary to compete with national retailers. “Seeing in-person sales being dominated by online sales empowers and motivates me to create the best possible experience for my customers—something the click of a mouse can’t provide. As far as technology goes, I and many small business owner friends are wondering how online sales will impact brick-and-mortar sales. It seems Amazon is taking over. There are even handmade journals—something you might find on Etsy being sold directly by the artist—for sale on Amazon!”

Others have noted how rapidly the activity in their businesses has shifted online. Lindsey said, “Our holiday shows were really great. At one of our shows we did over \$1,000, which is really good for a first-year show. For the months of November and December, we had approximately five online orders. This year we went to that same holiday show and sold less than half of what we had sold last year even though our products and craftsmanship are considerably better than they were in 2015. I was really disappointed in the show performance. However, we received approximately 50 orders online.” Some participants are active across a number of online and social media channels to promote their business.

CREATING AN IMPACT WITHIN SQUARE

Armed with these research findings, the Insights team sought to devise ways to disseminate this material throughout the organization. Team members recognized that maintaining engagement and interest would be vital to ensure that the research actually changed how

employees approached their jobs. Further, since different types of employees are accustomed to consuming information in a range of ways, the modes of communication needed to reflect these differences.

As a first step, the team showed senior management a 20-minute documentary film to bring the findings to life. This meeting was important to gain buy-in and create momentum for a nontraditional campaign to share the research more broadly. Then Insights worked with Square's internal communications team to secure time with the entire company to deliver a presentation that included key learnings before screening the film. To engage a broader set of employees, multiple viewing stations were set up throughout the company to ensure everyone had a chance to watch the film. A subtitled version of the film was played on a loop on two large screens in the office space. In addition, listening stations were positioned in a high-traffic area to give Square employees an opportunity to learn about each seller on a more personal level. The goal was to engender understanding and empathy among employees so that they had specific people in mind when they thought of the challenges that sellers face. Overall, this approach created a sense of curiosity and served as the basis for continued discussions and exploration into how these insights could influence strategy and operations.

Although the Insights team didn't track specific metrics to gauge the impact of its dissemination strategy, anecdotal evidence suggests that different parts of the company have made "outside the bubble" an important part of their function. The research findings were reflected in company initiatives such as the Dreams campaign, a series of short films examining economic empowerment and the pursuit of the American dream in the heartland. Square has committed to ongoing qualitative and quantitative research, particularly with regard to underserved markets. Insights from this project and additional research will continue to be incorporated into every level of the business, from strategy down to tactical actions such as mixers in select communities for local small business owners. In fact, the phrase "outside the bubble" quickly became part of the vernacular among Square employees and serves as a constant reminder of the company's customers when building and designing products.

CONCLUSION

We all live in our own bubble, and it has become increasingly easy in the Internet age to assume that others automatically share our values. Only by making an effort to reach beyond our comfort zone to connect and interact with others from different backgrounds can we start to construct a more detailed, nuanced picture of the world.

For Square, that process identified several key takeaways about its sellers: Community is a powerful concept that informs commerce and motivates business owners to operate differently than their counterparts in large urban centers. In small towns, proprietors are part of the fabric of their community, and their connections to their customers extend far beyond business transactions. Business owners understand and embrace this expanded role and feel a sense of kinship and responsibility to their community—in part because many of them have deep roots to the towns in which they operate.

Mobile ethnography, field interviews, and firsthand observations of each business owner gave the Insights team a better sense of how communities are intertwined. It's impossible to separate the commercial and social aspects of businesses in small towns. In many instances,

businesses are meeting places, hubs of activity, and a force that contributes to the community by helping to keep it viable. The research also highlighted why some communities are thriving and others not. In many small towns, the networks that small businesses can tap into for mentoring and support have a direct impact on the ability of entrepreneurs to grow. Some factors that help to create vibrant communities are beyond the control of business owners. Study participants pointed to the economy as well as national, state, and local policies that have presented challenges from time to time. Despite these challenges, participants demonstrated commitment and persistence to the success of their business, not only for their livelihood, but also the health and future of their community.

Giving Square's workforce visibility into its sellers required different, engaging ways to ensure the research insights actually had an impact on how employees do their jobs. Last, the effort to identify and understand sellers isn't a moment in time but rather an ongoing conversation. The initial response to the research findings suggests that Square's workforce is committed to maintaining this dialogue.

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Cases 3 – New Ventures and New Markets

Creating a Creators' Market: How Ethnography Gave Intel a New Perspective On Digital Content Creators

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LISA KLEINMAN

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This case demonstrates how ongoing ethnographic research from within a corporation led to the re-segmentation of a market. The first part of the case focuses on how a team of social science researchers at a major technology company, Intel, drew on past research studies to develop a point-of-view on the increasing importance of content creation across a range of populations that challenged the findings of a quantitative market sizing study. Drawing on earlier qualitative work, the team was able to successfully argue for the value of ethnographic research to augment these findings and to show how research participants' orientations toward technology constituted a more significant, and more actionable way of segmenting this new market than professional status, the differentiator used in the quantitative study. The second half of the case highlights the process of driving business change from within a large corporation. By turning an ethnographic eye on their own organization, drawing on past research, and by sharing unfinished results in workshops to grow the project in phases, the team was able to build stakeholder buy-in, and prime the organization for more ready adoption of ethnographic insights. As a result, the team's findings led to a substantive change in Intel's perspective on digital content creators, and to new products and marketing strategies. The team won a divisional award for defining a strategy that led to a profitable growth area for the corporation.

INTRODUCTION

This is a story about the value of cumulative ethnographic work from within an organization, the role of ethnography in shifting the perspective of internal corporate stakeholders, and driving impact with a new segmentation.

With increasingly powerful computers available at lower and lower prices, the shift in processing from client devices to cloud and data centers, and the gradual approach toward market saturation, Intel was increasingly concerned with declining sales in the desktop market. In an effort to shore up that business, Intel had been trying to identify new markets for whom high end computing mattered. Some members of the Desktop Business Unit saw a potential in marketing to digital content creators, but they did not know how to go after the market. Intel's corporate Market Research Group determined through quantitative research that because they had similar technological needs, and because many of them also

played video games, digital content creators were essentially the same as video gamers, and could be reached with the same products and marketing materials. They recommended using a segmentation based on professional standing – professionals, prosumers (enthusiastic hobbyist creators who purchase devices that are close to professional-grade in complexity and quality), and mainstream (casual creators, who use low cost equipment to create basic projects) – to reach the market, with computational needs roughly distributed by status. By their thinking, professionals and prosumers used higher-end computers, and mainstream creators used lower-end machines. They advised the Desktop Business Unit to focus their efforts on mainstream consumers, people who take photos and videos of soccer games and birthday parties, for instance, because while they had lower computational needs, they were also the largest market and would, therefore, result in the highest sales numbers.

The Pathfinding Team, composed of social scientists located in a different Intel division, became aware of the interest in content creation within the Desktop Business Unit, and perceived a gap they were in a unique position to fill. Like the Desktop Business Unit, they had observed the increasing centrality of digital content creation in both professional and consumer contexts. Drawing on research done in prior months and years, including research conducted ten years previously about what was then called user generated content, (Faulkner & Melican, 2007), the Pathfinding Team had begun to discuss key behavioral shifts in content creation, and were tracing some of these across diverse research projects unrelated to the Desktop Business Unit. The Pathfinding Team had recently conducted a series of studies on professional creatives, Gen Z (the generation born in the mid-1990s to today), and solopreneurs (similar to entrepreneurs, but with a stronger focus on working alone or with a few partners, as opposed to hiring and building an employee base). These projects had been borne out of requests from other business groups and stakeholders, and in some cases were small explorations driven by the team's own agenda of understanding emerging socio-technical relationships and their relevance to Intel.

The Pathfinding Team recognized the market research segmentation based on professional standing as insufficient to address the needs of the Desktop Business Unit, and perceived distinct differences between their own observations and the market research recommendations. They saw computational needs distributed more in terms of complexity of project, for example, than professional status, and doubted that digital content creators were satisfied with the industrial design of laptops and desktops that catered to the video game market. Since part of the goal was to sell more high-end desktop computers, and given the prevalence of phone and camera based editing among casual, and even some semi-professional photographers and videographers, reaching out to soccer moms and dads, even if they were avid picture takers and video makers, also seemed ill advised at best.

The Pathfinding Team approached the Desktop Business Unit, armed with evidence from their prior and adjacent work, and a point-of-view on the shifts occurring in digital content creation which became the basis for the Unit's decision to sponsor ethnographic research, first in the US, and later in China and South Korea. The insights generated from this work led to an entirely new and more actionable segmentation rooted in contextualized user behavior that reshaped Intel strategy, motivated new partner projects with Original Equipment Manufacturers (OEMs), and drove new marketing initiatives.

Market segmentations hold a powerful position within companies to shape business strategy and key decisions. Prior to the 1960s, companies had largely understood markets in terms of affordability, with luxury brands aimed at higher income consumers, and lesser

models with fewer features offered at lower prices to lower income consumers. However, a 1958 article by Pierre Martineau argued that social classes differ profoundly in how and where they buy, not only along economic lines, but also in terms of symbolic value (in Cohen, 2004; 238). By appealing to narrower subgroups within a mass market, companies aim to link their brands not only to the practical needs of consumers, but also to their identities and sense of who they are as people. Where successful, market segmentations can be extraordinarily powerful.

Today, segmentations are typically owned by market research teams at corporations and are generally created by clustering attitudinal responses to questionnaires in order to identify different target groups of consumers (e.g. Flynn et al., 2009); these segments are then used to determine prioritization of different features and to inform decisions about the product design and marketing approach. Such methods are effective in that they reduce complexity in ways that make them easy to grasp and use as a framework. However, this same reductive quality can lead to misguided decision making and is often in tension with ethnography, with its attention to complexity. This case study brings another perspective to the relationship between market segments and qualitative insights about people, demonstrating the capacity for ethnography, as Marta Cuciurean-Zapan argues, to enable new kinds of representations (Cuciurean-Zapan, 2014). Further, it demonstrates the value of maintaining ethnographic capabilities within the corporate structure in supporting such interventions by providing the necessary internal knowledge structures, and identifying pivot points out of prior research that would not be possible when research is sourced from a variety of ad hoc sources.

This case study traces the process through which the Pathfinding Team identified a critical research gap, created the opportunity for an ethnographic intervention, and executed the study, leading to a series of new insights and ways of thinking about digital content creators as a market. The case study subsequently addresses how the Pathfinding Team worked with the Desktop Business Unit to represent the insights in ways that were both accurate from an ethnographic point of view, and relevant and actionable for the corporation's business partners. Finally, the case study reflects on the impact of this project, and the factors making that impact possible.

PART 1: CREATING AND DRIVING THE OPPORTUNITY

Initially, the Desktop Business Unit was not fully aware of work taking place in the Pathfinding Team relevant to the topic of digital content creators. They were, however, struggling to figure out what to do with the corporate market research findings that were not clearly actionable. While that work divided the market of digital content creation into segments based on professional status, and time spent engaged in content creation activities, it did little to point toward what matters to content creators, and the factors that shape their computational needs or purchase decision-making practices.

When the Pathfinding Team approached the Desktop Business Unit and positioned its capability by presenting an initial point of view about the shifting context of digital content creation, they focused on past research about young creators (Gen Z), professional “creatives,” and solopreneurs in business ecosystem landscapes. This point of view was based on three key points: 1) that digital content creators had grown as a market segment through shifts in the PC-based software and hardware ecosystem that specifically targeted young creators, 2) that the youngest segment of PC users (Gen Z) were increasingly oriented

not just around content consumption, but around content creation and, 3) that the rise in the US contingent workforce was likely to bring new urgency to the suite of hardware tools that enabled larger numbers of digital content creators to professionalize. The leader of the Pathfinding Team explains,

We approached the who ran the Desktop division with the desire to do limited pilot ethnographic research in the US because we believed that the work, along with secondary research, could provide an initial perspective on digital content creators that would give us, and the Desktop organization, the basis for making a decision on whether or not there was a potential opportunity with this particular population.

This evidence, presented to the head of Intel's Desktop Business Unit, showed that major shifts were happening in the realm of digital content creation, and it became the basis for the Unit's decision to support an initial research phase in the US. The Pathfinding Team was asked explicitly to return with more than "stories about people." The business unit wanted actionable recommendations. The Pathfinding Team responded to this request by using stories and insights generated in that first phase of research to create an initial differentiation of content creators in terms of their orientations toward technology, including their interest and willingness to delve into technical details of hardware and software. The insights generated in that first phase led to an expansion of the project to include ethnographic research in two additional countries, a business ecosystem analysis that looked at the start-up activity around digital content creation, and a small online survey (n=150) on computing platform preferences designed to validate and support the ethnographic data. Eventually, the work resulted in an actionable market segmentation of digital content creators. This paper focuses on the ethnographic research portion of the study.

METHODOLOGY

After gaining the go-ahead to conduct a qualitative research project, the Pathfinding Team decided to focus their research on professional content creators – people who earned a living, or were trying to earn a living, through creating and distributing content, and on young Gen Z creators working toward making a name for themselves in digital content creation, some with professional aspirations, and some for whom the value lay elsewhere. The team defined digital content creators as people who make creative assets, mostly with a visual component, requiring high computational power. Representative job roles of this type of creation include filmmaker, music producer, and multimedia professionals (such as virtual reality & video game artists). Since the goal of the Desktop Business Unit was to sell more high-end, compute-intensive PCs, the decision was made to concentrate on people who need that type of machine in order to do their work.

The Pathfinding Team conducted research first in Los Angeles, and later in Shanghai, and Seoul. Los Angeles and Shanghai were chosen as field regions because they attract a wide array of creative professionals, and have strong infrastructures for supporting creative work. In recent years, Seoul has come to be equally recognized as a global influencer of pop culture and creativity, but its selection was driven at the request of the Desktop Business Unit who had a business interest in the region already. The regional and cultural differences

helped identify key pain points that spanned across the professions, and provided insights into contrasting purchasing behaviors.

The team interviewed 55 participants: Los Angeles (n=21), Shanghai (n=18), and Seoul (n=16). This sample size was necessary to produce a diverse range of experiences, drawing from professionals who identified their primary work as follows in the list below.

- Video Post Production (10)
- 3D Modeling (10)
- Virtual Reality Building (10)
- Audio Production (7)
- Filmmaking (9)
- Social Media Broadcasting (5)
- Graphic Design & Photography (4)

Across all of the regions, the Pathfinding Team was specifically interested in understanding the perspective of creators who need to make their own decisions about the technology they use, which resulted in a focus on sampling solopreneurs. A solopreneur is an individual who combines the flexibility of freelance projects with the structure and brand building of someone who operates their own business. They work alone or in very small (under 10 people) companies, and have to act as their own information technology (IT) department. This type of professional was of primary interest because they necessarily focus on both the creative production of their work, and the best tools, technologies, and resources to support their endeavors. This is in contrast to creative professionals who are employed at a medium to large company that sets up the IT infrastructure and provides the financial investment in the equipment on behalf of the worker.

To be included in the study, research participants needed to use a laptop or desktop computer they selected themselves, and they needed to make money from content creation. The team was not looking for hobbyists. In each site, the team also sought out Gen Z (aged 12 to 19) content creators who were trying to generate value out of their creations – either social capital or monetary compensation. The team included Gen Z participants as they wanted to better understand the relationship between the behaviors and concerns of professionals, and those of young people who were serious about content creation but not - or not yet - professionals.

Participants were recruited using snowball sampling methods which included reaching out to content creators participating in online meetup groups, contacting media professors to refer former students, and posting recruiting advertisements on professional networking sites such as LinkedIn. For Shanghai and Seoul, the Pathfinding Team relied heavily on the personal networks of their fieldwork partners because without a one-degree of separation connection there would have been deep skepticism and mistrust by potential participants as to the legitimacy of the request.

The Pathfinding Team conducted three-hour ethnographic interviews with participants at the primary location where they work. For most of the sample, this was either their home (sometimes with a specific home office area such as in Figure 1) or in an office building. One participant specifically sought out hotel lobbies that he found architecturally interesting to

use as a backdrop inspiration for the theatrical stage models he digitally crafted. The interviews followed a similar structure of having the participants talk through their personal and educational backgrounds related to their profession, and a project demonstration or set of work examples that showcased their workflow and process. In-depth, open ended conversations covered the level of computer processing power creators needed, the types of software applications they use, and how they came to make those determinations. From these areas of focus, the team gained a deep understanding of how independent digital content creators think about the role of technology in their work.



Figure 1. A game developer who aspires to create virtual reality worlds in Seoul, South Korea.

The primary research questions were:

- What motivates their content creation? What excites them?
- What is their background? How did they get here?
- What are the ranges of hardware and software used by content creators and what are their workflows?
- How do they make decisions about what hardware and software to acquire and how do they acquire it?
- What drives them to refresh or change their computing systems? What is critical to their business?
- What are their computing pain points? What value propositions do they identify with?
- How do they make money and create value?

- What new technologies and new interaction modes interest them? What capabilities do they currently lack?

Research participants also completed a card sorting task with 15 different pain points about using desktop computers that had been provided by the marketing team, and blank cards where participants could add their own challenges. Participants sorted these pain points on a grid that represented the level of annoyance they experienced with the pain point, and the level of frequency encountered in their work (see Figure 2). This type of structured activity, completed at the end of the interview, provided a useful opportunity to explore the prior behaviors from the interview in relation to the types of trade-offs that the Desktop Business Unit wanted to understand better.

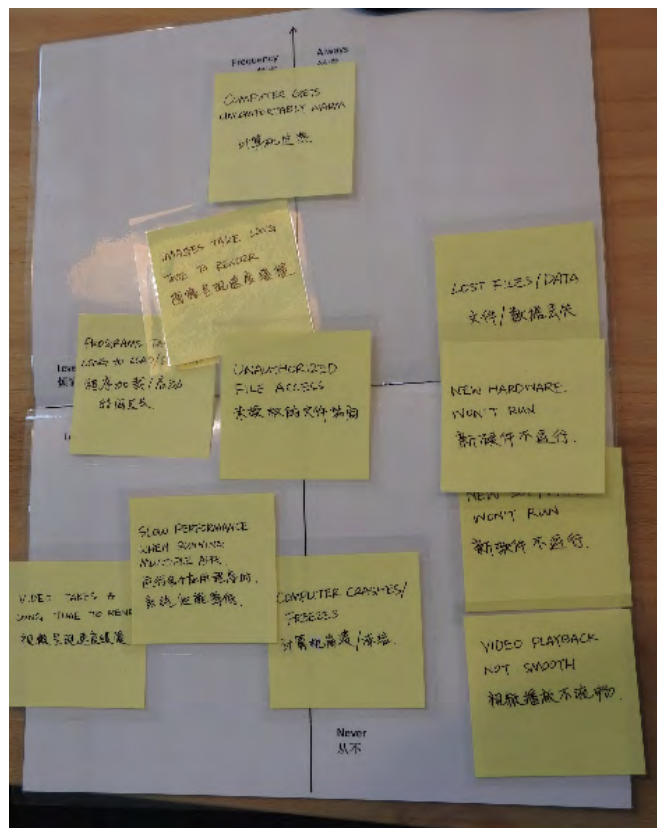


Figure 2. Card sorting activity of computing pain points mapped out by Level of Annoyance & Frequency Encountered.

Substantial time was also spent with research participants outside the interview setting, and in other contexts relevant to them, although not always with those who participated directly in the study. One member of the team participated in a weeks-long mixed reality development course. The team attended a professional conference for content creators, ate meals with participants, and immersed themselves in the content creation culture in each

country. For example, in both the US and China time was spent in co-working spaces to understand how solopreneurs use these environments to create business connections. In Shanghai, the team also went through the sales process of buying a computer just as several participants described doing themselves (see Figure 3).



Figure 3. Buying a PC in a Shanghai computer mall, the computer consultant advised the team to buy less expensive parts for our proposed virtual reality activity.

In Seoul the team was able to revisit two research participants that had been part of multiple Intel content creation studies dating back ten years, and who had formed collegial friendships with the Intel team. In one case, the team was able to attend a rehearsal for a multimedia experience inside the walls of the largest royal palace in Seoul, as one of the content creators projected images on the palace's facade. These additional activities provided a richer context for relating the interview data to first-hand experiences, and helped the Pathfinding Team more deeply understand creators' perspectives on how technology supports their work and professional goals.

Using Workshops to Expand the Project and Refine the Tech Orientations

The Desktop Business Unit stakeholders had not previously worked with ethnographers, so the Pathfinding Team set up project timelines to have constant feedback loops, both through workshops and organizing opportunities for stakeholder participation in the interviews with research participants. These check-ins served important functions: 1) they

brought the stakeholders into the ethnographic process of analysis, 2) they allowed the team to take the time needed for this project while maintaining a strong communication line with the stakeholders, 3) they gave the Pathfinding Team the opportunity to incorporate a deeper understanding of the stakeholders' concerns into the research itself, and 4) they enabled a staged expansion of the project over time as the Pathfinding Team built trust and credibility with the Desktop Business Unit stakeholders.

By bringing stakeholders into the analysis, the team created a space for the stakeholders to share reactions and perceptions about the research data which was used by the team to refine the segmentation. In order to shift their assumptions, stakeholders had to deeply absorb the data themselves and experience it; this would not have been possible had the Pathfinding Team created a set of finished insights. With workshops built into the process, the team was able to co-create insights with stakeholders that could only emerge out of the conversations and reflections that were shared together.

One Desktop Business Unit stakeholder who participated in interviews at a commercial video editing house was so transformed by the fieldwork experience that he continuously referenced stories of the participants throughout the workshops and follow-up conversations. The insight that the stakeholder found most surprising was learning that the labor intensive part of post-production (transcoding videos) was offloaded to junior team members who were using computers that were too slow for this type of work—yet all the buying decisions were made by the creative lead who did not realize how slow the process was for the support team. By participating in the fieldwork directly, the stakeholder internalized the importance of job roles, and power relationships, in new ways as they related to the Desktop Business Unit goals.

The project was structured as such over a three month time period:

Table 1. Timeline for Interviews & Workshops

Timeline	Activity & Outcome
Month 1	USA Fieldwork Collecting insights about digital content creators, identifying and understanding behaviors around workflows and the use of technology.
Month 1	Workshop 1 - Introducing the Data Draw stakeholders into directly working with the stories and insights about computing pain points. Test the idea of the tech orientation segmentation in its early form.
Month 2	China & South Korea Fieldwork Validate the structure of the tech segmentation in completely new geographies and identify differences in participant behavior that may be impacted by cross-cultural factors.
Month 3	Workshop 2 - Diving Deeper Translate structure of segmentation into actionable business activities, such as marketing plans and talking points for executives.

After completing fieldwork in Los Angeles, the Pathfinding Team organized and analyzed the research data into an initial set of insights that highlighted key user stories and responses to initial stakeholder questions. These stories were crafted into user profiles which consisted of photos, quotes, and relevant points about the participants' behaviors and technology use described in detail.

The team met and reviewed perspectives on each participant, and explored common themes. These themes emerged from the profiles, participant workflows that examined bottlenecks and frustrations with hardware and software, and they identified several different motivations for the types of creative work valued by the participants. Some participants placed a stronger emphasis on developing their work solely as it suited their artistic sensibility (often expressed by Gen Z participants), whereas others, like one South Korean audio musician, felt grateful to have a paying job producing music for video games, even if it wasn't artistically challenging. He was satisfied by the fact that he had "real work" as an artist because it demonstrated to his parents that he was successful, despite their initial reservations about his career choice. Along with more practical findings about work practices, the amount of money spent on computers, and where participants purchased devices, the values expressed by research participants led the team to create initial insights linking technology choices to a broader sphere of influence based on expectations for how creators wanted to be perceived by others such as family and professional peers. This initial set of data impressions was organized into slides to be shown in the workshop meeting, but also printed out in order to encourage the stakeholders to annotate and mark areas of interest. The Pathfinding Team structured the first workshop on the following topics:

- 1) Generate conversation by sharing participant stories that emphasize different dimensions of interest:
 - a) What does the technological environment of a creator look like?
 - b) How does a creator learn about new software and hardware tools?
 - c) What is the workflow and collaboration process of a creator?
- 2) Activate analysis with frameworks that were created from the initial internal analysis (Tech Orientation framework)

The workshops succeeded in helping the research team test stakeholders' comprehension and perceived actionability of the technical orientation segmentation. The workshops also provided the stakeholders the space to insert their own point of view and point to areas where they wanted to know more. One contested topic was the relevance of the Pathfinding Team's feedback that even Tech Whizzes, technically savvy and often highly skilled users who enjoyed researching, talking about, and building out their own hardware and software configurations, complained that the CPU component sold by Intel was extremely difficult to update and replace as a new part. The Pathfinding Team had anticipated that this issue would be considered a priority topic to be analyzed further, but the head of the Desktop Business Unit immediately dismissed this finding as well-known and not an insight that he considered actionable at that time. These types of discussions helped ensure that the recommendations and next steps being offered by the Pathfinding Team would be accepted into the working plans of the stakeholders. It also facilitated a level of investment in the

project by stakeholders who felt and saw their concerns actively taken into account in the execution of the research and analysis, and enabled a staged expansion of the project over time as stakeholders came to see the value of it, and asked for more.

PART 2: DEVELOPING THE SEGMENTATION

Understanding Content Creators by Behaviors

Ethnographic fieldwork exposed differences among professional digital content creators that led to the conception of a new market segmentation. The research conducted by the Pathfinding Team was substantially different from the research used by the corporate Market Research Group in forming their segmentation, resulting in a new way of thinking about the market. The Market Research Group had used a quantitative survey to look at the size of the market, and to quantify *what* content creators were doing, but not *why* or *how*. The resulting segmentation was based on creators' professional standing (professional, prosumer, mainstream), and not on their workflows and values. The Pathfinding Team used qualitative, in-depth research to understand content creators' behaviors, motivations, and attitudes. The Pathfinding Team segmentation and the Market Research Group segmentation had very different inputs which resulted in completely different outputs.

Early on, the Pathfinding Team was struck by stark differences among the content creators in behavior and feelings about technology. While some research participants passionately delved into the distinctions between generations of CPUs identified by corporate code names, and reminisced about their first forays into building their own PCs and hacking firmware, others were emphatic in their total lack of interest in such details. The less technically focused creators wanted to know as little as possible about computer specifications. They wanted the right computer to get the job done while taking up as little of their time and attention as possible. Insights from the life histories of both professional and Gen Z participants made it increasingly difficult to support hard distinctions between professional and non-professional creators. At the same time, insights showed increasing differentiation among professional content creators in terms of how they related to technology and technical specifications more broadly.

Analyzing this data, the Pathfinding Team began to think of these differences as technology orientations. Content creators who built their own PC towers using components they bought on the Internet, and who were focused on extreme computational power, graphics capability, and RAM, the team called Tech Whizzes. A pair of American virtual reality startup developers explained, *"It is about how much power we can have in a single workstation. Having stable, reliable computers that are powerful is paramount to what we do."* Figure 4, below, shows the office of a Korean Tech Whiz who received a government grant to develop virtual reality applications to train emergency personnel in firefighting techniques.



Figure 4. Tech Whiz CEO of a VR startup in Seoul, South Korea (left). He built all the computers used in his small company of eight people.

However, other professional creators bought their computers off the shelf with some help from a friend, colleague, or store employee; the team called them Minimalists (see Figure 5). When asked about computer specifications for components like the CPU, GPU, and RAM, one American commercial video editor said, *“I have no idea what any of that means.”* Another participant described her purchasing process as going through the drop-down menus on the product web site and selecting the most expensive options because given her work, she knew she needed “the best.”



Figure 5. A Minimalist TV and film editor in Seoul, South Korea who consulted with friends and mentors when buying technology for her studio. Creating computer graphics is her least favorite part of her job.

In between these two extremes were creators who might have preferred not to know anything about technical specifications, either for lack of time or lack of interest, but the nature of their work made it impossible for them to use off-the-shelf computers without any customization. Specialized technical variations between components or models were critical to their projects, so the team called them Specialists (see Figure 6). Specialists had learned technical specifications relating to their own creative objectives. One American audio composer said, *“The graphics card isn’t as important to me, so I don’t know what card I would get, but 1 Terabyte of storage is not enough for all my sound files, so I have to get more chassis.”*



Figure 6. A Specialist audio musician in Shanghai needs to connect keyboards and other hardware extensions that require him to understand technical details; he would rather just focus on the creation of music.

This model was a major change from how Intel had traditionally thought about consumers. The technology orientations cut across professional standing; they apply to creators whether they are professionals, prosumers, or mainstream creators.

In collecting biographical stories of how participants came to be professional content creators, and in interviewing Gen Z creators, for whom the value they derive from their activities rarely qualifies them as “professional” or even “prosumer,” it was clear to the team that these orientations cut across professional standings. Tech Whizzes tended to be Tech Whizzes long before they became professional content creators, and many successful professionals remained Minimalists. While Specialists’ expertise tended to grow alongside the sophistication of their work, and was thus loosely linked to professionalism, it was significant to the team that the acquisition of knowledge was driven not so much by professional advancement as by the complex nature of the work they were trying to get done. Each segment has a different relationship to technical complexity – Minimalists do not want any

complexity in their tools and systems, Specialists need complexity in certain discrete parts of their systems, and Tech Whizzes thrive on complexity across multiple machines, software programs, and other tools (Figure 7).

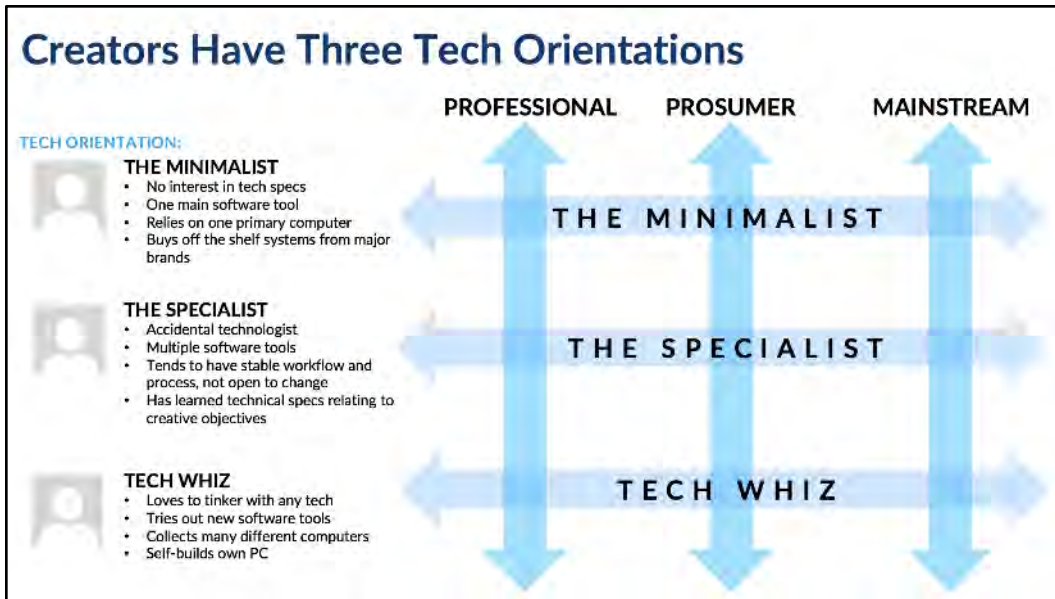


Figure 7. Technical Orientation overview to explain the differences between each segment.

The Pathfinding Team determined that professional content creators are more diverse than Intel previously thought. Professional does not always equal tech savvy, contrary to the company’s longstanding assumption. While taking into account the findings from the team’s pilot studies and past studies on content creation, it was clear that a mainstream, non-professional content creator is not always tech ignorant. There are degrees of tech literacy throughout the large market of digital content creators. Furthermore, the tech orientation framework proved to be a valuable tool in thinking about how to message to, and market to content creators. It is both a model and a finding that was a useful way for the Pathfinding Team to make sense of what they had learned, and communicate it to the rest of the company. It gave the team a way to talk about the research that was actionable.

Creators are Not the Same as Gamers – In addition to the insights around technical orientation, the research showed clearly that digital content creators are not the same as gamers. Contrary to a longstanding Intel assumption, digital content creators did not want to buy gaming PCs and would not respond to advertising and messaging aimed at gamers, even if they played games in their spare time. Creators (both professional and Gen Z) identified as creators, and wanted devices that were sleek, stylish, high-end and devoid of gamer-oriented ornamentation like flashing lights, skulls, and dragons. A Chinese industrial designer told the team, *“I hate Alienware because of all the flashing lights.”* An American 3D-modeler expressed frustration with computers optimized for his work saying, *“What I’m buying is geared toward gaming, and it feels patronizing. I hate buying hardware from companies that look like they should be selling*

Airsoft guns.” Despite enjoying gaming in his free time, he did not want to do his digital content creation on a gaming machine.

Culture also played a part in participant attitudes about gaming and content creation. In China, for example, where career choices and purchasing patterns alike were more strongly shaped by professional and social role than by concepts of personalization, participants were particularly averse to computers designed for gaming, seeking instead those they felt were “best for design” which they perceived as categorically different from gaming machines regardless of technical specifications.

Cultural Differences – While the Pathfinding Team’s efforts were aimed at understanding digital content creation practices ethnographically and cross-culturally to tease out common patterns and concerns, understanding how these patterns played out in different geographical and cultural contexts was central. The Tech Orientation framework as a segmentation highlights relevant differences for the digital content creation market that cut across geographic boundaries. Cultural differences between someone in Los Angeles and someone in Shanghai were not relevant to the creation of the segments for the global market of digital content creators. However, as in the point made above regarding perceptions of gaming and design oriented hardware in China, the team also found important social and cultural variations. That material was used internally to talk about different go-to-market strategies and advertising methods and messages.

In China, for example, enormous value was placed on the newness of a computer. Content creators preferred to buy a less expensive, less powerful machine on a more frequent cadence rather than buying the top-of-the-line and keeping it for several years. The head of a Shanghai design start-up said, *“We were planning to buy a 100,000 RMB computer, but we want to try the 10,000 RMB one first.”* He hoped the much less expensive machine would be good enough for the short time he planned to use it. The value Chinese content creators placed on getting a good deal economically, coupled with their perception of quick cycles of obsolescence, led them to buy the least powerful, least expensive machine that could get the job done. They upgraded machines often because the next generation was expected to be better in both performance, and in the optics of success, where newness signaled to others that their business was doing well. In South Korea content creators tended to maximize their purchase and buy the best machine they could afford. A Korean virtual reality developer told the team, *“I want my PC to be a beast.”* Similarly, in the US, where “time is money” and the most expensive part of any project was the cost of human labor, content creators tended to buy the most powerful machine they could afford with the understanding that time saved on processing media translated directly into savings for the creator. In addition, even for non-professionals, generational product differences between computer processors were seen as so small and incremental that it was better to buy a more expensive, more powerful machine, and keep it longer.

One of the findings that surprised the team was the relative absence of Tech Whizzes in Shanghai. Regardless of a highly entrepreneurial spirit, and strong value placed on resourcefulness and economy (two values cited by many Tech Whizzes), and despite a few participants who mentioned having built computers from scratch in their youth, content creators in China did not tend to orient toward technology in this way. Why? The explanation for this lies in the confluence of social, cultural, and economic structures that undermine the financial and social value of being a Tech Whiz. From a socio-cultural

perspective, Chinese communities place higher emphasis on the ties that bind people together than on self-reliance as an individual trait, as in the United States. Whereas in the United States, Tech Whiz stories about themselves emphasized both the economic advantages of “building one’s own,” and the satisfaction of individual accomplishment, for Chinese participants, there was no particular personal value or social capital associated with building a PC. Instead, participants often made purchase decisions on the basis of advice from a friend or colleague, and resourcefulness was demonstrated in collective ways, by leveraging the skills and ties of one’s social and professional network, rather than one’s individual accomplishments. The solicitation and giving of advice on the “best” device to buy served to strengthen the network ties between people. In addition, in the Chinese market, desktop computers are generally custom built by local sellers, who include the assembly of the system as a free service when purchasing a computer. Thus, Chinese buyers reaped the economic benefits of building their own, with neither the practical need nor any special social cachet attached to deep technical know-how. However, because PC sellers were generally outside the personal network of content creators, their advice was seen as untrustworthy. One Chinese social media broadcaster told the Pathfinding Team that she needed a more knowledgeable friend to go with her to the PC mall when she wanted to purchase something to make sure that she wasn’t cheated. Thus, the role of Tech Whiz in China is actually distributed across a number of actors including knowledgeable friends, colleagues, and custom PC sellers. Tech orientations themselves are not simply characteristics inherent to personalities, but a product of various cultural, social, and economic forces as well.

For Intel, the particulars that make Tech Whizzes rare in China are less relevant than the implications of the particular arrangement of social and economic dynamics that shape how content creators make purchase decisions. It means that influencers (knowledgeable friends and PC sellers) are extremely important, and that broad campaigns focused on technical specifications are less likely to be successful than word of mouth and branding efforts that focus on defining “best in class” for specific creation purposes.

IMPACT OF THE RESEARCH

“This wasn’t just a research project that sits on a hard drive.”
—Desktop Business Unit Stakeholder

The ethnographic research results had an impact on organizational structure, new product development, relationships with equipment manufacturers, marketing and advertising strategy, and the corporate culture. A new strategic planning group was formed to create and support a digital content creators market, and the work enabled Intel to expand the market for high-end PCs through new marketing messages and products (Figure 8). The digital content creator team was able to use the research results to help activate an ecosystem with key OEMs in the industry. In one example, Intel shared the research results with an important OEM customer. The OEM subsequently shared extensive research of their own with Intel leading to a deep level of end-user understanding that helped define features for an all-in-one computer product designed for digital content creation in the Chinese market. The research also led the marketing and advertising teams to create campaigns tailored to content creators, keeping in mind the segment was more creative, and less technical than

previously thought. Intel partnered with a key independent software vendor to develop a marketing campaign using members of the content creation community (Figure 9). The campaign featured real-world content creation case studies based on the ethnographic research, and did not highlight technical benchmarks, a primary component of most previous Intel advertising campaigns for high-end computers. A crucial element of the campaign was a series of video portraits of key influencers from the Tech Whiz segment showing their work processes and tools. These highly polished video segments contained limited Intel branding and subtle marketing messages. The advertising campaign tag line was, “Intel Gives You the Power to Create Like Never Before.” The research had an impact on the culture of Intel as well. Inspired by the work of the Pathfinding Team, the market research team hired a consultancy to conduct ethnographic research, rather than quantitative research, in order to create a new segmentation of gaming enthusiasts.



Figure 8. Intel web site updated with focus on digital content creators.



Figure 9. Intel marketing campaign in partnership with OEMs focused on creators.

CONCLUSION

The case presented has two important points: (1) the necessity of understanding the rich textures of everyday life to create actionable frameworks, and (2) the importance of having an ethnographic research team in-house to keep a corporation capable of radical action in a dynamic world.

Primarily relying on ethnographic research to create a segmentation was a new experiment for Intel. Flynn et al. (2009) demonstrate the value of ethnography in market segmentation, beyond what statistical measures can create, by bringing real people, real data, and real experiences into the creation of an abstract, but actionable, segmentation framework. The research demonstrated to the company that a computer, camera, screen, hobby, and job are not discrete entities, but are part of deeply contextual experiences. The digital content creators research validated the importance of including ethnographic capabilities in the equation of creating a market. Surveys, focus groups, and text analysis concentrate primarily on what people say about things they do, buy or use, but fail to grasp the underlying structures that govern the realities of experience. In structuring the segmentation of a new market, it was important not just to capture correlations but to understand causation. The “why” of practices and behaviors help set up the boundaries for the market, as well as best courses of action to create the market. Answering the questions of “What does it mean to be a content creator?” and “How does one become a content creator?” led not only to powerful personal narratives, but to the framing of a segmentation. The team’s focus on both the social and cultural aspects of digital content creators helped to flesh out the market and move the work beyond individuals to the context of actions. While there were clearly differences in cultures, the team found the global communities of practice more influential in understanding the market drivers. The team created marketing and product recommendations separate from the segmentation to incorporate a more nuanced understanding of the cultural contexts of the digital content creators in places like South Korea, China, and the USA.

This case exemplifies a key advantage of having an in-house ethnographic team - the team can act without having to be asked to solve a problem. The in-house research team is able to do this in part because the team has a depth of understanding about the company, its products, services, history, and future strategy, which is not possible for vendors brought in to address discrete questions. Because the team is immersed in the company all day, every day, they are attuned to the company, its mission, values, and culture. In day-to-day interactions the Pathfinding Team had created trusted relationships with decision-makers that created openings for introducing alternative perspectives. Further, as evidenced here, in-house ethnographic research teams bring a wide range of previous work that can be reframed to be pertinent to the corporation’s current discussions, and can create informed, historical perspectives on strategic developments that often seem to operate ahistorically in ways that risk missing critical shifts. In this case, for example, previous research pointed to an overall shift from content consumption to creation, suggesting the professional standing of creators be deemphasized in relation to technical orientations when trying to understand the market. In other words, because the Pathfinding Team was able to bring to the table a history of studying digital content creation, it was easier for them to see the breadth of that shift, and the ways it brought content creators into the market who were different from the company’s vision of creators with high technical needs. Finally, internal research teams are

not necessarily “given” a problem, but can develop their own point-of-view on a topic. External agencies can execute flawlessly when given a problem, whereas in-house research teams can reframe discussions and prevent the need for agencies to solve problems. While in-house research versus outside agency research offers trade-offs, a corporation that has a blended approach, like Intel, creates the greatest advantage for success.

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Cases 4 – Digital Perspectives

“Thinking Outside the Camp”: Education Solutions for Syrian Refugees in Jordan

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ReD Associates

This paper presents a case study of a project on education solutions for Syrian refugees in Jordan conducted between 2015-2017. First, it describes how ReD’s methodological approach provided a unique perspective to studies on refugees. By immersing a team in the day-to-day lives and settings that most Syrian refugees experience in Jordan—i.e., outside of camps and in people’s actual homes—ReD led its client to “think outside the camp,” something that relief agencies and companies often fail to do due to the refugee camp model of humanitarian assistance that, ever since WWII, has dominated the approach to refugees. Second, as a result of its unique methodological approach, ReD uncovered important findings about social networks and technology use and access in Syrian refugees’ homes and communities that ultimately shaped the client’s perspective on solution development. For example, ReD’s team of ethnographers found that nearly all out-of-camp Syrian households had at least one Smartphone in their possession, if not two or more, and that digital devices served as important tools of communication and community-building among people displaced by conflict. Consequently, ReD advised its client to tap into these pre-existing social networks and mobile technologies in order to develop an education solution that best fit refugees’ “real-life” practices. Ultimately, both ReD’s methods and its findings led to a significant impact in how the client strategized on and developed their education solution, and can serve as a broader model for how to approach building services and/or products for displaced populations with access to basic mobile technologies.

“The Jordanian educational/policy response to refugees is broken and will not easily be fixed or tinkered with. Solutions must work around this system.” (Education expert and activist working with vulnerable youth and school dropouts in Jordan)

INTRODUCTION

Ever since I first visited Jordan in October 2015 to research education among Syrian refugees, friends, family, and colleagues have wanted to know: “What’s it like in the camps?” Before they venture any further, however, I stop them: “I don’t work in camps. Most Syrian refugees live outside of camps.”

This, more than anything else I might say, elicits surprise and, to a certain extent, confusion. Outside the Middle East, the photo-stock image of a Syrian refugee camp—row upon row of identical tents and caravans beaded across a dusty, inhospitable landscape—remains firm in people’s minds. In reality, of the nearly 5 million Syrians who have fled Syria since the civil war broke out in 2011, the vast majority reside in low-income neighborhoods in one of three host countries: Turkey, Lebanon, or Jordan. Indeed, according to reports by the European Commission, over 90% of Syrian refugees in Turkey and over 80% of Syrian refugees in Jordan remain in out-of-camp settings, while Lebanon has no formal refugee camps whatsoever.

Still, there is good reason why refugee camps continue to dominate the global imagination today. As anthropologist Liisa Malkki pointed out over twenty years ago, ever since World War II, there has emerged a standardized way of talking about and handling ‘refugee problems’ among national governments, relief and refugee agencies, and other nongovernmental organizations (1996). What is more, she suggests, “these standardizing discursive and representational forms [...] have made their way into journalism and all of the media that report on refugees” (Ibid: 386).

The issue is not only one of misrepresentation, however. In practice too, international relief and refugee agencies tend to adopt a camp-centric approach, developing initiatives primarily from within the contained spaces of camps in order to “order the disorder” (Hyndman 2000) of a humanitarian crisis.

Despite the overwhelming attention paid to in-camp refugees, numerous national and international initiatives aim to reach those living outside of camps. Naturally, though, logistics are a challenge. Syrian refugees in Jordan live in towns and cities scattered throughout the country, and transportation is either unreliable or expensive. As a result, many relief and refugee agencies provide transportation services to and from their centers.

While these traditional camp- and –community center -based initiatives, ranging from medical and hygienic interventions to schooling and rehabilitation programs, remain useful and important, they leave little room for innovative approaches that aim to reach refugees where, for the most part, they really are.

This case study aims to demonstrate how, by immersing a team in the day-to-day lives and settings that most Syrian refugees experience in Jordan—that is to say, outside of camps and community centers, and in people’s actual physical and digital realities—ReD Associates challenged the typical methodological approach to studies on Syrian refugees. Rather than focus on the physical marginality of refugees, we explored the ways in which people are in fact highly digitally connected, despite being geographically dispersed. As a result of this methodological approach, ReD uncovered important opportunity areas for an innovative and inclusive solution that fit people’s physical and digital realities. Ultimately, both ReD’s methods and findings on technology use and access in Syrian refugees’ homes and communities led to a significant impact in how its client thought about and developed their educational solution for children affected by conflict.

DESCRIPTION OF THE PROJECT

While humanitarian responses to the Syrian crisis have typically focused on food, water, and shelter, initiatives that improve and ensure the delivery of education are an increasing concern as the years wear on and many Syrian children remain either out of school or in school systems that are under tremendous strain (see Table 1). Thus far, most educational initiatives targeting Syrian refugee children aim to bolster the preexisting structures of either formal schools (e.g. the formal school system of Jordan) or non-formal education delivered primarily through camps and community centers throughout the region. In doing so, these initiatives rarely benefit from thinking outside the box – or the camp, quite literally – by looking at the opportunity areas that exist in people’s actual behavior around learning and education outside of pre-existing structures.

Table 1. Syrian children in and out of school in Syria and neighboring countries, as of December 2014

No. of school-age children	In Syria	Total outside Syria	Jordan	Lebanon	Turkey
Projected	5.7 million	1,205,000	238,000	510,000	350,000
Registered	-	1,237,668	213,432	383,898	531,071
In formal education	3.7 million	399,286	127,857	8,043	187,000
In non-formal education		196,110	54,301	109,503	26,140
Out of school	2 million	642,272	31,274	266,352	317,931

Within this context, ReD’s client, one of the world’s leading education companies, aimed to move beyond a traditional donor-based aid model to develop and implement an innovative and scalable education solution that ensures that children who have been affected by conflict continue to receive a basic education despite the turbulence around them. Jordan was selected as the site of both research and initial solution piloting due to its large population of refugees, its relative safety and stability in the region, and the client’s partner relationships there. A team of anthropologists from ReD Associates was then hired to develop a strategy for education solution development based on ethnographic fieldwork among Syrian refugees in Jordan. Fieldwork was carried out in Jordan between 2015 and 2017, and can be divided into three distinct phases: 1) Identifying the problem to solve for; 2) Developing a solution concept; and 3) Testing the solution prototype.

1. Identifying the Problem to Solve for

To begin with, ReD’s client needed to identify a key problem to solve for. In short, they needed to know: Who should this solution focus on? Who would benefit most from an innovative education solution? Should it have a digital component? Also, given that the research would take place in Jordan, what were the social, cultural, and political levers to pull and constraints to consider there? Furthermore, what was the role of formal versus non-formal education, and what role should the client’s solution play relative to these different learning channels?

While it was not a give-in from the outset that the solution should be digital, based on conversations with our client we knew that a digital component would speak to their strategic vision for increasingly digitally-oriented product innovation. Further down the road, a digital solution would also offer greater potential to scale. However, we did not yet know what the limitations and opportunity areas around digital access and use looked like on the ground, and whether or not it would be feasible or even advisable to incorporate a digital component to the solution.

The first phase of research was, therefore, fairly open-ended. Consequently, it was also quite overwhelming. In order to develop a rich understanding of how children, caretakers, and educators engage with physical and digital educational resources in Jordan more broadly, ReD employed a mix of methods (see Figure 1).

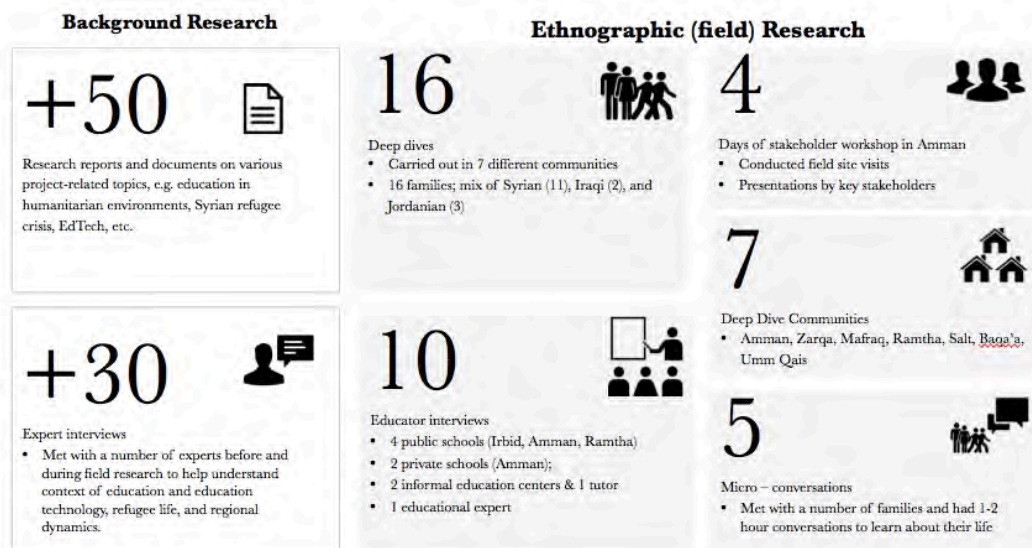


Figure 1. Methods used during first phase of open-ended ethnographic research in Jordan.

Before traveling to Amman, for example, the team reached out to and interviewed many different kinds of experts – including academics, activists, and INGO workers – and carried out extensive background research on the current crisis. Once in Jordan, they teamed up with local co-researchers and translators familiar with the refugee space in order to carry out “deep dives” into the lives of 16 different families (11 Syrian, 2 Iraqi, and 3 Jordanian), as well as interviews and informal chats at local public, private, and non-formal schools, community centers, and non-governmental organizations.

To ensure a diversity of perspectives, deep dives cut across a range of ages, ethnic/religious groups, and education levels. The team also chose families from a range of geographical origins: of 11 Syrian families, 4 were from Homs, 3 from Daraa, 3 from Aleppo, and 1 from Damascus. They interviewed children who were out of school completely, behind in school, or attending only non-formal school (i.e. schooling that would not lead to a government-recognized diploma).

Based on this research, ReD’s team found a situation in which many different structural barriers impede refugee children from receiving the education they need: schools and resources in Jordan are under tremendous strain, there are not enough physical spaces for children to learn in, teachers are overwhelmed and underpaid, not to mention ill-equipped to deal with children coming from a context of trauma and PTSD, parents often cannot afford school supplies or transportation for their children to get to/from schools, bullying is rampant, and the list goes on. As one 12-year-old Kurdish refugee boy from Aleppo told us, “Every day I have to be careful when I go to school – today these kids threw stones at me, they called me ‘Syrian.’ I was with my neighbors who carried sticks to defend me.” Clearly, the client could not solve all of these problems at once.



Figure 2. Syrian refugee father walking his sons to school in Amman to ensure their safety and prevent bullying. Photograph by the author.

What ReD did first for the client, then, was to define the problem space as the critical first step in developing a strong education solution. In particular, the decision as to whether the client should focus on helping children who were already out of school (roughly 30% of refugee children aged 6-11 and 50% of those aged 12-17 in Jordan) or those at risk of dropping out was critical to the solution design.

After exploring potential solutions that could target older or younger out-of-school children, ReD saw too many barriers to solving for this challenge. For one, reaching out-of-school children would require working largely outside the formal school system, which is politically and logistically complicated. Recent guidance from Jordan's Ministry of Education (MoE) suggested that it would be difficult for any new non-formal educational solutions to gain approval and support. Furthermore, the development of UNICEF's well-known Makani program, a massive initiative designed to deliver informal education to out-of-school children, meant that despite the uncertain political terrain there were already significant efforts underway aiming to address this issue.

Thus, while there was no doubt that out-of-school children were perhaps those in most need of help, the challenges involved in getting these children back on track suggested that a better use of resources would be to make sure they did not leave school in the first place. Dropouts were most common for children aged 10-16 with the average age of dropout around 12 years old.¹ Despite the tremendous need to help keep this group (typically referred to as the middle grades)² in school and learning (Andrews & Harrison 2010), most interventions continue to target early elementary education or out-of-school children.

As a result of this ethnographic research, and bearing in mind the strategic capabilities of both the client and their implementing partners in Jordan, ReD settled on one key problem to solve for: *Keeping children between 10-16 years old who are at risk of dropping out of school in school and learning*. Not only would solving for this problem fill a critical gap by reaching those who are underserved and have a tremendous need for support, but scaling this solution to other markets has great potential. Dropouts among older refugee children is a problem in many conflict-affected settings around the world and yet there is still no major effort underway to target these children while they are still in school and help ensure that they stay in and continue learning. Naturally the content of such a solution would vary across locations and require customization, but scalability could come from the overarching model and approach.

In the short term, due to practical constraints such as budget and organizational capacity, ReD also recommended to its client that the solution first be designed for and piloted among 9-12 year olds, and that it focus on math (roughly grades 4-6 of the formal Jordanian curriculum). This would allow the client to test the solution, learn from the group, and then make iterations that it could later scale to other contexts and populations.

2. Developing a Solution Concept

Once ReD helped its client identify a key problem to solve for, the next step in the process was to aid them in answering questions more directly related to the education solution itself, namely: How could it reach children most effectively? What educational content would resonate most with the needs and motivations of children, caretakers, and educators? And which technological innovations would work, which wouldn't, and why?

Most people around the world, when they imagine Syrian refugees, imagine them hungry and in need of shelter or medical care. Rarely do they picture them with a Smartphone in hand, WhatsApping their cousin in Daraa, where Syria's uprising originated. This is perhaps because, as Pierre Minn (2007) argues, referring to Malkki's (1996) work among Hutu communities, "refugees are traditionally held to the standard of an 'exemplary victim'; they are imagined to be helpless, in need of aid, and void of particulars."

Despite the growing academic literature on the role of technology in transforming the social and economic lives of transnational populations, very little attention has been paid to the use of technology such as mobile devices or social media among Syrian refugees. An important exception to this is the work of Wall et al (2015), which finds, based on research in one of Jordan's major refugee camps, that cellular phones are viewed as a "crucial resource akin to food" (2) and "a vital tool for acquiring and disseminating information" (6).

ReD's own team of anthropologists found that nearly all of the refugee households they worked with in Jordan had at least one Smartphone in their possession, if not two or more, and many also owned basic tablets and/or laptops. This included families living under roofs of corrugated tin in some of the poorest neighborhoods of Amman, as well as families renting out basic one- and two-bedroom apartments in Mafraq and Ramtha, near the border with Syria. Children as young as two and three spent much of their free time at home and "on-screen": playing car-racing games on their parents' phones, listening to their relatives' voices stream in over WhatsApp from Syria and Iraq, and dancing to music videos downloaded by older siblings. "Every day, my grandfather sends me a WhatsApp voice message from Damascus, asking me if I'm doing well in school, what my grades are. I don't tell him I'm falling behind," one 11-year-old boy explained to us.



Figure 3. Inside a Syrian refugee home in Amman. Most households interviewed owned at least one Smartphone. Photograph by the author.

As a result of these insights, ReD recommended that its client design a standalone digital learning product that could supplement formal education and, in this way, be used both on its own in the home and as a part of supporting after-school programs (see Figure 4).

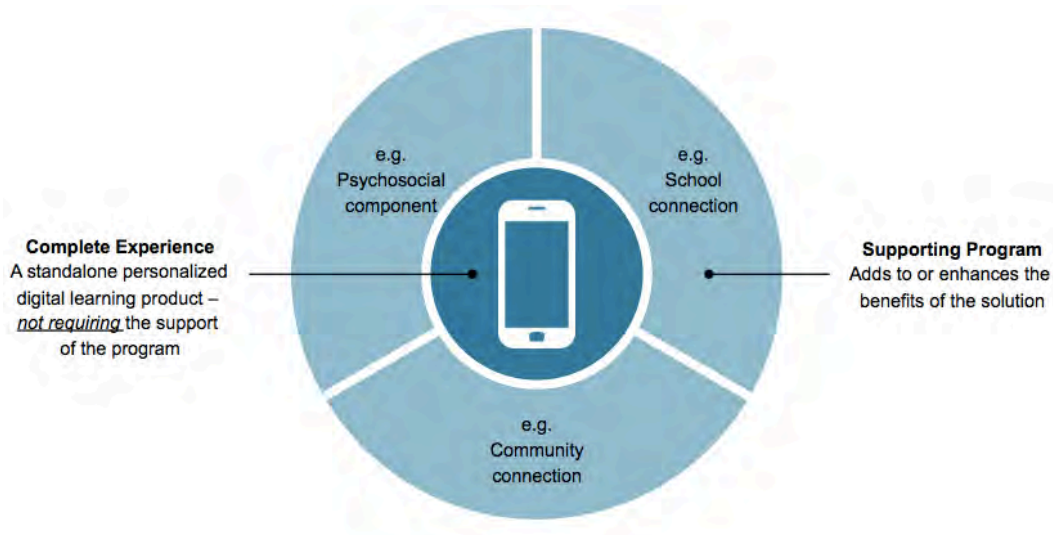


Figure 4. Solution concept.

However, design constraints were significant. While most households had access to multiple devices, connectivity was a constant issue, and most of the Smartphones people owned were entry-level or older Samsung Galaxies or Nokias running on Android technology. Furthermore, as one expert on the matter told us: “There is a worry among refugees about surveillance on the part of Syria. Technology-based solutions should take this concern into account.”

Together with the client, ReD set out a plan for product development, assisting with everything from user journey mapping to solution design and product requirements. Based on its ethnographic work in Jordan, ReD was also able to guide the client in designing for culturally resonant themes, typical game behavior and preferences, device management practices, etc. By 2017, the client had built its first iteration of a mobile math-learning game designed for Android, and was ready to test it out on the ground in Jordan.

3. Testing the solution prototype

Once the client had built the solution prototype, ReD’s team returned to Jordan to test it out with children and develop a strategy for the game’s eventual hard launch. Key questions that ReD had to answer for the client at this point included: How and why were children engaging or not with the game? How did the game fit into children’s broader game and tech behavior? And what made the game a successful social experience for children?



Figure 5. Iraqi refugee children trying out the mobile learning game for math. Photograph by the author.

This time, ReD combined qualitative research—participant-observation, interviews, and focus groups (see Figure 5)—with the client’s quantitative research, namely tracking and analysis of usage patterns based on in-app diagnostic tools. While in-app diagnostics revealed larger patterns around how long and how often users played the game, as well as specific details around, for example, which junctures in the game caused users to exit most frequently, without further context it was difficult to understand *why* users were returning to or leaving the game. ReD’s research team therefore used the client’s quantitative data in order to guide specific areas of questioning and observation while in the field. From this, the team was able to assess both major sticking points and opportunity areas within the game, as well as develop a go-to-market strategy for it.

At the time of writing, ReD’s client is using these findings and recommendations to make changes to the prototype and drive a successful go-to-market strategy for the game’s hard launch. While it is still early to draw any definite conclusions, initial findings point to the fact that regular users of the game are already increasing their computational and geometry skills, as well as experiencing increased levels of motivation around both math and the idea of going to/continuing to go to school.

ANALYSIS OF THE PROJECT

As mentioned in the introduction to this paper, outside of camps, Syrian refugees in Jordan tend to live in precarious housing far from most official centers and aid organizations. Left largely to their own devices, they carve out channels of support and information primarily via immediate and extended kin, as well as social media. Why, then, do most educational initiatives targeting displaced populations in the region default to a standard, camp-and-center-based approach, rather than tapping into pre-existing social networks and technological access and behavior?

ReD’s team of anthropologists found that in order to best understand refugees’ daily practices and needs and therefore design effective educational initiatives for them, conducting research outside of both refugee camps and community centers was key. Ultimately, ReD’s approach and the perspective that came of it led its client to conclude that in order to most effectively reach them where they really are, educational and other initiatives targeting children affected by conflict need to shift from a standard, camp- and center-based approach and tap into pre-existing social networks and technological access and behavior.

Methods

Just driving from one neighborhood in Amman to another can take hours, and for most refugees, both public and private transportation are prohibitively expensive. As a result, many relief and refugee agencies working outside of camps provide shuttle bus and other transportation services to and from their centers.



Figure 6. Neighborhood in East Amman where many Syrian refugees live. Photograph by the author.

However, center-based programming is often an extension of the refugee camp model. Following Malkki, who in turn draws on the work of Michel Foucault (1979), the community-center approach can be viewed as one more “standardized, generalizable technology of power in the management of mass displacement” (1995: 498). Like camps, centers rely on the concentration of refugees in contained and therefore knowable, controllable spaces. Like camps, they are a means of ordering the disorder of crisis, with little attention to the ways in which refugees independently organize their lives either physically or socially.

This is not to say, however, that the work of camps and community centers is unimportant, nor that the intentions of those who work in them are misplaced. On the contrary: the need for camp and center-based services such as remedial education and psychosocial support is tremendous, and those who provide these services are often commendable and courageous in what they do.

The problem is that the standard, camp and center-based approach to refugees does not meet them where they really are. In order to develop innovative approaches that aim to reach refugees where, for the most part, they really are—outside of camps and community centers—researchers need to conduct fieldwork in refugees’ homes and communities, as well as the digital contexts they inhabit. As one political science PhD candidate working with Syrian refugees in Jordan commented during an interview with the author: “People are starting to realize that urban refugee populations are underserved and important, but NGOs often don’t have the budgets, funding, or wherewithal to work with non-camp populations. This is where companies could really add value and do something new and unique.

Especially since the next wave of refugee services will be targeting urban populations around the world.”

Following this line of reasoning, ReD carried out ethnographic research among refugees living in host communities throughout northern and central Jordan. Though logistically complicated and time-consuming, in some ways it was actually *easier* to access urban refugees because less researchers are working with them, they are under-served, and they want to be accounted for.

Between 2015-2017, ReD’s research team spent a total of two months in Jordan conducting ethnographic fieldwork among Syrian and Iraqi refugees, as well as vulnerable Jordanians. The first and longest phase of research involved immersion into the lives of 16 families spread across 7 different cities in Jordan. With each family researchers engaged in:

- Participant-observation in people’s homes (6-8 hours per day per family, and 3+ days of immersion per family);
- Semi-structured interviews with key members of the family (e.g. parents, school-age children, children who had dropped out or were behind in school);
- Play therapy (e.g. playing games, drawing, collaging, etc.);
- Participant-authored photography and WhatsApp diaries
- Game co-design (e.g. having kids try out different physical and digital games and puzzles and then draw out themes and ideas for how a new game could be structured)
- Informal conversations with neighbors, friends, etc. who lived nearby or were otherwise a regular part of people’s daily lives.

In addition, ReD’s team met with educators from various parts of the educational world: formal and non-formal schools, public and private schools, in-home tutors, and educational experts. The team also carried out participant-observation in both formal and informal schools and learning centers. Through this ethnographic work ReD built a fuller picture of the on-the-ground learning dynamics, needs, and behaviors of children affected by conflict.

In the end, ReD’s methodological approach to the problem led its client to start thinking about an education solution in terms of something mobile – something that could be used independently from traditional brick-and-mortar structures, and that could travel with refugees as they moved from one location to the next.

Final Outcomes

Because ReD’s ethnographers conducted research outside of camps and community centers, they uncovered key findings about social networks and technology use and access in refugees’ homes/communities that ultimately shaped the client’s perspective on innovative solution development. For example, ReD found that nearly all out-of-camp Syrian and Iraqi refugee households had at least one Smartphone in their possession, if not two or more, and that digital devices served as important tools of communication and community-building among people displaced by conflict.

Based on findings such as these, ReD’s client developed an education solution that does not depend solely on camps or community centers for adoption or use (see Table 2).

Table 2. Solution outline in brief

End-goal	To keep children aged 10-16 who are at risk of dropping out of school in school and learning.
Pilot target group	The pilot will take place in public schools and target 9-12 year olds.
Solution focus	Accelerating the target group’s academic achievement through supplementary basic math education that supports existing learning goals, while building resiliency through 21 st century skills and strengthened relationships.
Format	A personalized, digital learning product that is engaging and relatable to children and supported by a broader program of activities and communications.
Solution delivery	Distributed in partnership with educators and schools burdened by a high number of refugees and vulnerable Jordanians, who do not have the resources to bring struggling students up to speed.
Product use-case	A personalized learning product that is promoted in schools but primarily used outside the classroom and which fosters collaboration and stronger relationships with other peers and adults.
Assets and roles of partners	Client will drive product design as it brings its expertise with content development, digital delivery, and developing personalized learning experiences. Local partners will drive program design, implementation, and monitoring/evaluation, as they have the on-the-ground assets and relationships in the educational space to deliver the solution.

While it is still too early to draw conclusions on the precise impact of the solution on children’s learning, we can say that ReD’s methodological approach and the perspective that came of it led the client to think outside the box and develop an innovative digital solution that reaches Syrian refugees where they really are – outside of camps and community centers.

CONCLUSION

As is well known, the majority of Syrian refugees now residing in Jordan, Lebanon, and Turkey live below the poverty line, lack access to basic health care or education, and suffer from depression and discrimination, as well as serious physical and psychological trauma from the war. But refugees—like all people—also have a degree of agency in how they organize their lives and communities. And at this point they have phones, if not basic tablets and laptops. As Panagakos and Horst (2006) point out, technology helps transnational populations stay connected with their home countries, as well as forge new connections and relationships in the new locations where they live.

For organizations—be they public or private—looking to most effectively reach and impact Syrian refugee populations, they need to think not only outside the standard camp and-community-center box, but also within the dynamic social and technological networks of refugees. This is especially the case for those—like ReD and its client—who are seeking to develop innovative educational initiatives for displaced Syrian children. Whether they are in or out of school, these children, left to their own “devices” as they so often are, could be learning a whole lot more than they are now.

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NOTES

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1. See: <http://unhcr.org/FutureOfSyria/the-challenge-of-education.html>.
2. Within the educational world, the middle grades typically refer to grades 4-8 (or between the ages 9-14).

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Cases 4 – Digital Perspectives

The Lifecycle of a Washing Machine: Transforming the Customer Experience for a Home Appliance Manufacturer

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This case study explores a customer experience transformation strategy and development research project run by Deloitte for a multinational U.S.-based home appliance manufacturing company. It explores the shift in strategy and approach for the company based on the team's digital ethnographic research, as well as applying the ethnographic method to a non-traditional data source (digital and social media). Part one lays out the background on the client and the team and challenge proposed by the client. Part two lays out the details of the team's methodology and process of evaluating social data using ethnographic and other qualitative and quantitative methods. Part three reflects on the findings of the research and how these differed substantially from the client's assumptions. Part four evaluates the contribution the digital-based research made in providing a new perspective on the enterprise's customer experience strategy and understanding of their customers. The evidence from the case study suggests that the value of analyzing the customer lifecycle and customer experience using digital and social media sources provides insight into how people make purchasing decisions, and uncover previously unidentified stakeholders that hold crucial power in the buyer-seller dynamic. The authors' research methodology provided a new perspective into the decision-making process, influences, and influencers. Their digital ethnographic analysis was effective in providing insights to the client that helped change their view of the customer experience, and helped inform a new approach to engaging and working with their customers, and gave agency back to the customer, as well as provide an urgency for action.

Keywords: digital anthropology, digital ethnography, consumer behavior, customer experience, customer care, CX, customer strategy

INTRODUCTION

A multinational, U.S.-based home appliance manufacturing company had a problem. They were a legacy brand – several legacy brands in fact – that relied primarily on partnering with independent and chain retail stores to sell their consumer appliances across the United States. They also had a young ecommerce store and were looking for ways to expand their online presence to become less reliant on the partner stores. However, despite their legacy and the efforts to shift online, they were losing ground to competitors, both online and in-store.

The company was a quite siloed organization. They hadn't connected the data or people who touch end consumers, whether that was their own staff, partners, vendors, or others, and had not connected in all the different partners, vendors, internal systems, and other business elements together to get a full view of the customer experience. Customer care was still primarily phone-based, and the team had limited insight into other parts of the

company. The client from the IT side of this appliance company had been tasked with addressing these customer experience issues. His charter was primarily focused on lowering costs of the customer care phone center, as well as trying to determine when customers were most likely to call in with complaints or concerns. The client came to Deloitte Consulting LLP with the request that someone should analyze the brand's customer care experience and help him understand where they should (or should not) engage.

That Deloitte team reached out to the authors, part of a team of researchers within Deloitte, to aid in answering these questions. This research team specializes in digital & social media listening and analysis. As data scientists, design researchers, and digital anthropologists, they take an integrated approach to analyze digital and social media data to understand research challenges from both the quantitative and qualitative perspective.

The project team consisted of the lead author as lead researcher; two other analysts assisting part-time; and the secondary author as the capability lead. Both the client and the internal team were at least slightly skeptical about the value of this social analysis project, but the research team immediately knew that there was infinitely more going on with this situation than just a poor phone customer care experience, and that in order to change the experience, and the client's mind, they were going to have to provide a detailed, holistic 360 degree view of the people behind these phone calls, behind the decreasing sales numbers, and behind the angry tweets. They were going to demonstrate that digital ethnography could provide insights into and inform the entire lifecycle of the customer and the company.

PART ONE: CHALLENGE AND BACKGROUND

The project was simple yet complex: understand the large-appliance customer engagement lifecycle, and full customer experience from research to purchase to repair. For the past several years, the Deloitte team had been working with the consumer appliance manufacturing company, and were finally making headway into transforming and updating their customer service and support department, and had started to develop a customer relationship management (CRM) roadmap. Their client, who was based in the IT department, was relatively new to the manufacturing company, and was ready to try something beyond the traditional call-in support the company had been offering for the past 100 years.

While Deloitte team had a strong background in standing up technology and customer service programs, they didn't have as strong a background in digital and social media service offerings. But they did have something else – a team of digital anthropologists and social media researchers, freshly acquired from an acquisition of a small boutique agency, where the authors and their team had been working with a variety of different clients from different industries.

The Deloitte team reached out and asked the social research team to analyze the “digital voice of the customer” and understand the manufacturing client's customers' experience. The Deloitte team was looking for specific insights on client sales and service and high level recommendations to inform their CRM roadmap and strategy development. The team wanted to better understand how to incorporate digital technologies and capabilities into their roadmap.

The research team understood that customer service is not just a call center anymore, that in the age of social media, it involves servicing and engaging with the client

across the entire customer journey (Leggett 2014; Palmer et al. 2015; Schoeller 2014; Vaccaro et al. 2016). The social team knew they needed to go one step further and show the client the impact of the disconnect identified in their customer experience chain, and the value of connecting it together in a meaningful way, to elevate their customer experience and help them differentiate as a brand. The manufacturing client truly did not understand just how broken the experience was – so there was a bit of diagnostic work that needed to happen with the research team before the client and Deloitte could implement their massive CRM roadmap.

The social research team was asked to analyze numerous brands for different audiences engaging with or discussing the brand, perceptions of the brands, and customer service pain points, and determine the best approaches the manufacturing client could take to improve their customers' experience. They decided to look more broadly, beyond just customer service interactions, the entire customer journey, soup to nuts, to understand what expectations customers had, what was really happening on the ground, and how the customers responded.

PART TWO: METHODOLOGY AND APPROACH

Methodology

Digital anthropology is defined a number of different ways. It was traditionally thought of very narrowly, merely an ethnography of an online community, or used as a methodology that accentuates “traditional” anthropology (Boellstorff 2012; Russ 2005).

“Ethnographies of online communities and cultures are informing us about how these formations affect notions of self, how they express the postmodern condition, and how they simultaneously liberate and constrain.” (Kozinets 2010:36)

“[Digital anthropology] reveals the mediated and framed nature of the nondigital world.” (Miller & Horst 2012:18)

However some of these definitions miss the two-pronged implications of digital anthropology – it is both capturing a specific culture and cultural experience with its own rules and standards and behaviors, while also studying HOW people are using new technologies to communicate with their own offline cultures and communicate. Finally, many analysts are also using digital technologies to collect and analyze the data, which can impact both the volume of data that can and rightly should be analyzed, but can also impact how the analyst comprehends the data set, since like all data collection the questions and data collection are both influenced and biased by the researcher themselves.

Pink et al. (2016) explains digital ethnography:

“...takes as its starting point the idea that digital media and technologies are part of the everyday and more spectacular worlds that people inhabit... In effect, we are interested in how the digital has become part of the material, sensory, and social worlds we inhabit, and what the implications are for the ethnographic research practice.” (Pink et al. 2016:7)

For a simpler, more applicable definition, Jennifer has often described it as: “using an unstructured, often unfiltered medium (user generated digital content) that allows you to observe behaviors with limited interference from the researcher.”

Social media listening is often thought of as a research approach generally focused on producing statistical or purely quantitative data to qualify what is occurring. Digital anthropology has a primarily different focus of understanding people and behaviors. By analyzing “social listening” data through an ethnographic lens, analysts are typically able to understand people in their digital context, and provide answers to deeper questions about how different people do something, and often the motivation behind it.

For this particular project, the social team applied digital anthropology by looking beyond the culture of one sub-group or a specific topic, and instead looking at how multiple different sub-cultures view and relate to a brand, topic, or challenge. Social media analysis has traditionally been used in a corporate setting for understanding how to market products better and how to key into the right messaging. Through their own independent research, the social team determined that the data could also be used not just to understand how people were engaging with a brand, but the different kinds of audiences engaging with a brand, and how different Internet sub-groups related to each other and to larger topics – from wine preferences to dishwasher purchases (Hammond 2008; Kelley 2011; Palmer et al. 2015).

They have also been able to understand how these different groups interact with the offline world. As the offline worlds and online worlds have become more merged, individuals will often tweet at companies about a bad in-store experience, ask their peers questions about a product they are looking at in a store, ask for recommendations, discuss eco-friendly options, the right color, and share their excitement at discovering the “perfect fit,” and essentially track their entire customer journey online. This is not necessarily always done by one individual, but through the amalgamation of tweets, blog posts, forum questions, and public Facebook rants, analysts generally are able to sociologically piece together an entire customer journey, including how their experiences color other audiences’ view of a brand, store, or topic. (Palmer et al. 2015; Vaccaro et al. 2016).

Both ethnographic market research and social media analytics typically begin with a question from the client. A traditional market researcher might start by writing up a survey and then screening potential study participants by asking them a series of qualifying questions. Once the participants are selected, the analyst interviews the participants alone or in a group. The analyst asks participants a series of questions to uncover their purchase decision-making processes, consumption habits, lifestyle, and influences. The research analyst might even accompany them to the gym or a retail store, or present them with competitor products for their feedback. These qualitative findings are then crafted into a quantitative survey to measure the results.

For social research, an analyst might begin by dividing research questions into relevant keyword queries and then inputs these as searches into social listening tools. These tools crawl millions of posts and bring back publicly available information from blogs, forums, and other social sites. The social media analyst then analyzes these posts, organizes the data, looks for patterns, and pulls out the key conversation themes, major audience groups, and other salient insights. While social media analysis is more quantitatively based, it still requires an analyst to look at qualitative conversational data and add meaning. Analysts may not be able to follow the individuals in a target audience throughout their day, but they

can follow their routines through posts on social media, as well as all their friends and how they engage with each other online. (Kelley 2015)

Project Approach

Analysts began by creating Boolean queries for each of the different brands, sub-brands and competitor brands the client was interested in comparing. They then added custom excludes for inappropriate and non-relevant conversations for each Boolean query, but overall attempted to maintain the same keywords, verbiage, and conversational style that is common among consumers, vs. professional financial bloggers, news reports, or other communication styles. For example, the company might use the model number of a washer, while a consumer would describe it by its features, “the red washer with extra space and lid on top.” People may also use shortened versions of names or terms, like MIL for “mother-in-law” or call an accessory dwelling a “MIL Pod”. Excludes could also be used to differentiate between “waterfall model” in web design instead of garden landscaping.

The analysts then entered the Boolean queries into a third-party social scraping tool, filtering by Global English, scraping any mentions from the previous 12 months. In a matter of four minutes, the tool collected approximately 2.1 million social media conversations, with 650,000 direct mentions of the brand and its main subsidiary brands. The remaining volume consisted of competitor brands the client was interested in comparing themselves to. Figure 1 shows some of the sample content collected.

"Thanks for your thoughts. I went to Home Depot and found that almost all the top loaders now are without the agitator - who knew? The salesman was recommending LG, Maytag, or Samsung, but not Whirlpool or GE."

By the way, in my shoes what type of fridge would you buy? Side by side? I realize there is risk to that, but I just can't see having a bottom freezer. I'm getting used to the idea as I bet side by sides go by the wayside soon anyway. We don't need an ice maker or door water really, it would be [fun](#) but not needed. But most of the bottom freezers seem so problematic.

Figure 1. Sample posts from the team’s collection of social data around the appliance manufacturer and its competitors. Copyright © 2017 Deloitte Development LLC. All rights reserved.

Once the data was collected, the analysts reviewed the data to discover conversation themes, perceptions, and underlying audiences discussing these brands in social media. They analyzed posts to discover conversation themes, perceptions, and underlying audiences discussing these brands in social media. The lead analyst also looked at self-reported demographic data captured with the relevant digital content to understand the gender, age, and location of relevant audiences.

The team then used qualitative and quantitative analysis to identify key themes that occurred within the data relevant to the research question, key audiences engaging in the conversation, top sites where the manufacturing company and its competitors were discussed, and perceptions about the experience of engaging with the client at all stages of

the customer journey. They also looked at key themes and perceptions around key competitors, but not to the same depth.

PART THREE: RESULTS – UNEXPECTED INSIGHTS FOR THE CLIENT

The research team was able to demonstrate that the customer experience was more of a lifecycle than a journey. This journey played out in two ways:

1. Because the brand was a generational investment (what your parents bought you were more inclined to buy), customers returned to the same brand over and over, until their allegiance was tarnished or destroyed by bad customer service or other bad experience.
2. What one customer wrote online fed into another shopper’s perception and evaluation of the brand when they were looking for a new appliance, including ease of engagement with customer service, longevity of the appliance, ease of repair or access to repair person.

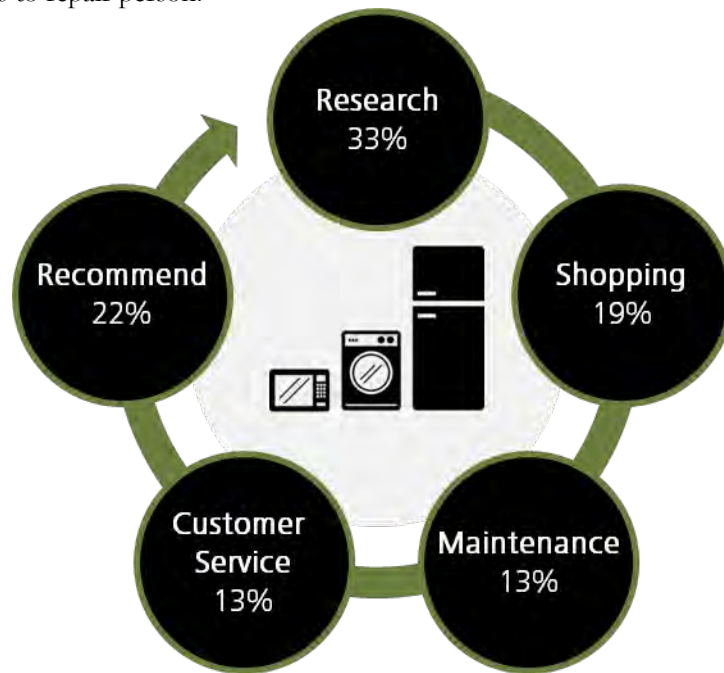


Figure 2. Visualization of the phases of engagement a customer had with the brand, or the “Engagement Lifecycle,” and the percentage of conversation that fell into each phase of the engagement experience. Copyright © 2017 Deloitte Development LLC. All rights reserved.

The lifecycle could be divided into the following stages, as also illustrated by Figure 2:

- **Research:** People did their pre-purchase legwork by asking for advice on Twitter and reviewing blogs. They attempted to narrow their options before making final purchase decisions based on quality, reliability, and price.

- **Shopping:** Consumers expressed a preference towards buying from a brick and mortar store, and valued an informed staff. When shoppers got to the store the field had already been whittled to a couple of brands based on features, but the final decision was influenced by price and product availability.
- **Maintenance:** People were reluctant to call a repair person because of presumed cost and the perception that their problem wouldn't get fixed. Many often turned to forums and YouTube for DIY solutions. People wanted their appliances to last, but they were not keen on calling a repair person, and would attempt repairs based on information they find online.
- **Customer Service:** Consumers ranted on Twitter and in forums about the lack of knowledgeable staff at larger retailers and on the phone.
- **Recommend:** People were happy to share their positive and negative experience with others across their social networks.

Audience – The team identified that men weighed in heavily on a purchase decision, and also were the ones that dealt with appliance maintenance. Men would often go online to attempt to determine from their peers if the appliance was worth repairing or if it was better to buy a new one. This was a complete contrast to what the client had been told by their prior marketing agency.

Not only were men critical in the purchase-making decision, they also broke out into three key audience types:

- **Outdoor & Sports Enthusiasts**, who were most interested in durable machines that will match their active lifestyles. These audiences discussed multiple outdoor hobbies like camping, hunting, gardening and other outdoor interests that required a lot of cleaning clothes after the activities. This audience also discussed RV's and second homes that required specialized appliances. "Made in America" branding was important to this group. This group also had extra income to spend on specialized appliances and relatively expensive hobbies, and were willing to spend more if it meant less hassle in the long run. This group also appreciated a hands-on customer service experience. This group included men and women in relatively close volumes, but men had the slight edge in strength of voice.
- **Technology Fans**, who discussed new capabilities or electronic errors on appliances. They were interested in the latest appliances coming on to the market, and preferably those they could communicate with using their phone or other mobile device. Korean brands were winning the "tech wars" with this audience, but this audience also lamented about how hard it could be to get replacement parts for these appliances. They were also asking for tips on easy replacements, DIY fixes, and other recommendations. This group was dominated by men.
- **DIYers**, who were trying to fix their appliances, or determine whether it was time to replace it, ranging from easy fixes to electrician-level work. This group was especially eager to offer their favorite tips and tricks for repair, as well as their experiences on appliances with high durability and longevity. They were also open to receiving help and suggestions from branded customer services representatives

regarding whether or not something really is worth fixing or better to get replaced. This group was also dominated by men.

- **Women** made up the majority of the rest of the audience groups, with the demographics that the client was expecting: stay-at-home moms, cooking enthusiasts who were looking to upgrade or replace their kitchen appliances, and young couples making their first purchases for their new home or apartment, usually driven by the female partner.

These audiences shared tips with each other, but in many instances existed online on different forums and social circles, and therefore did not engage with each other.

Multi-generational loyalty to the brand was expressed by customers. Consumers were very dedicated to appliance brands that worked before, or if it was a brand that their parents had had good experiences with.

The team also analyzed the volume of mentions of the main brand grouped by major cities across the United States, in part to see if there was regional popularity or concentration based on volume (See Figure 3).

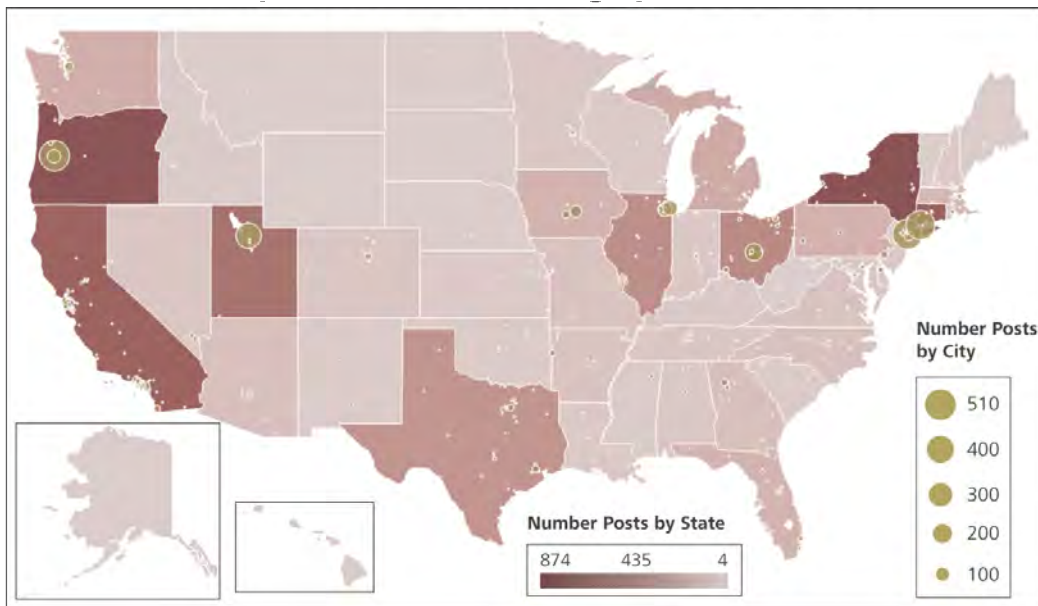


Figure 3. Brand-Relevant Conversation by Geographic Distribution For The United States. The research team entered the geographic data collected into Tableau to create a map of where conversations mentioning the brand were located. Conversations were centered in major metropolitan areas, but spread evenly across the United States relative to each state's population.

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Analysis by Phase

Research – As seen in Figure 2, customers spent approximately 55% of their discussion about the brand in the research and recommendation phases. In this largest segment of the

conversation across all social channels, customers said they were looking for the optimal product that fits their budget and soliciting recommendations from the online crowd.

This was not something the client had even considered; they had been mostly focused on engaging in the customer service phase of the engagement lifecycle. While that was important and valuable, especially since that was the phase where they lost most people, these insights about the Research phase provided them a chance to reach out to shoppers before they had even made a purchase, or respond to incorrect recommendations before they could influence other shoppers.

Shopping & Purchase – Longevity, and durability were consumers’ strongest considerations when making purchasing decisions. Across the entire lifecycle, 23% of conversation was focused on quality, durability, and reliability.

Consumers were doing copious research online before making a purchase. Peer reviews and recommendations were impacting purchase decisions. However, most consumers made their purchase decision based on price or availability of appliances in-store rather than online. Consumer reviews on sites like Yelp, Amazon, and partner store forums were very influential to shoppers during the early research phases. That said, most still liked to view the appliances in store before making their final decision. Even if consumers could get a better price online, they liked to be able to try out the knobs and dials, or “kick the tires” so to speak, and compare brands side-by-side, to get an overall “sense” of the appliance. This concept of “web-rooming” has been identified by others as well (Palmer et al. 2015; Reid et al. 2016).

Customers also found it was easier to ask for discounts or price matches in-store. The final “gut” decisions made between brands were often based on price matching or in-store sales or promotions. In-store availability of features, color, etc., or realizing the appliance’s measurements were wrong for the intended space also played a big part in final purchase decisions.

Consumers were making final purchase decisions in-store and valued a helpful and informative customer service experience in the partner stores that sold the appliances. However, these third-party partners had a lack of understanding of the products’ features. Negative feedback from customers focused on a perceived lack of knowledgeable staff, either at larger retailers or company customer service phone representatives; as well as promotions or discounts not being honored. Customer support staff working in the store or on the phone didn’t know to recommend additional accessories like hose grips or cords, how to measure extra space for appliances, and other considerations.

Maintenance – Another huge blind spot for the client was the customer experience around maintenance and repair services. Repairs were usually completed by third parties contracted through a vendor. The social research team discovered that customers actively avoided engaging with customer service agents and repair people.

Repair and maintenance was where the customer service relationship most often broke down. Most consumers expressed having a great experience right up until they contacted the large partner store or branded customer service line for assistance in repairing or replacing an appliance, and then the experience tended to turn negative.

Why customers didn't want to involve repair person

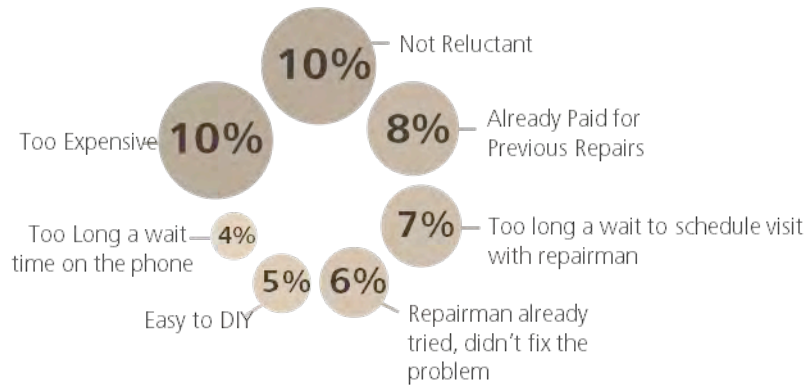


Figure 4. Analysts tagged the content for conversations discussing “repair”. They then coded each conversation for the reasons why customers chose not to engage with or contact a repair person. Copyright © 2017 Deloitte Development LLC. All rights reserved.

Experience with repair person

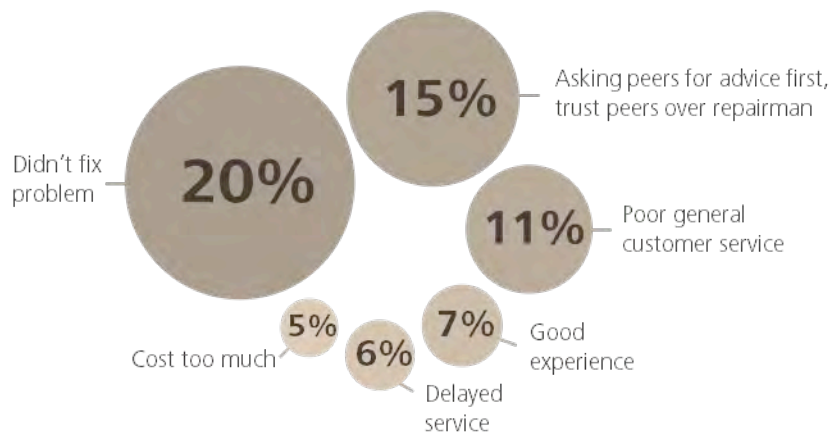


Figure 5. Analysts tagged the content for conversations discussing “repair”. They then identified and coded conversations where customers did engage with repair personnel, whether for a quote or a full repair service, and the experience they had with the repair individual. Copyright © 2017 Deloitte Development LLC. All rights reserved.

Customer Service – This lack of knowledge continued beyond the in-store experience. The phone experience was usually deemed the most frustrating by customers compared to in-store or social/email engagement. Customers often felt like it was easier for phone agents to pass blame or let bureaucracy get in the way of good customer service. In fact, the perception of the appliance brand was most negative around poor customer service experiences with branded representatives. Figures 4 and 5 show the different pain points

customers described when dealing with repairing an appliance and the repair service people, with corresponding volumes of frequency.

Recommend – Consumers discussed their customer service experiences on multiple channels, including experiences via phone, in-store, or via social like Twitter or IM with online customer service agents. This publicly available data of customer service conversations was then evaluated and taken into consideration by other consumers when making purchasing decisions, thus feeding back into the cycle of customer experience. This meant that the company had to also be responsive to the consumer reviews and post-consumer feedback, not just during the pre-sales process.

PART FOUR: CONCLUSIONS AND ASSESSMENT

Outcomes of the Research: Shifts in Perspective from the Client & How These Were Applied

The team delivered the report to the internal team, and was invited to the client site to present the research to both the internal team and the client at the same time. When the presentation team arrived, they had been prepared to present first thing in the morning. However the client kept delaying and delaying the presentation. Finally, after two reschedules and two hours before the team needed to head back to the airport, the client sat down to hear them out.

The client was floored by their report. He had no awareness of some of these pain points their customers were experiencing, especially around the experience with repair persons and the struggle to decide whether to repair or replace. He was also taken off guard by the amount of men weighing in on the purchasing and maintenance decision-making process; they had previously only been tagging women demographics in their online ads and digital content. It had not even occurred to the client to focus on the research and recommendation phases of the customer experience.

The Deloitte team was also floored by the insights the research team uncovered. They had assumed the research team would provide basic recommendations for mobile apps or social media best practices, which Jennifer and Beth did provide as part of their recommendations; but the overall depth and breadth into the kind of insights the research team could pull from social media was fairly staggering to them. In fact, while the authors were presenting the research to the client and the internal Deloitte team, one of the internal team members (politely) challenged the study's findings, asking about sample size and robustness of the methodology. The authors were able to refer to the 1,000's of posts analyzed per each specific phase and or topic, and explain the methodology in more detail, at which point he became all the more enthusiastic about the approach and the findings.

As part of the project, the research team proposed several recommendations or solutions to solve many of the key issues they saw emerging for the client, both from a digital engagement perspective but also from a holistic customer experience. Some of the recommendations provided for the manufacturing client included:

- Drive potential customers to segment-relevant consumer education and peer review content with segment specific advertising on popular social media platforms like Facebook and Twitter.
- Consider engaging the DIY audience segment by launching an Advocates Program that delivers tools, information, and incentive to provide helpful, brand-relevant support to customers.
- Design a program to facilitate easy and up-to-date digital tools and information about the brand's numerous products.
- Develop internal tools and resources to facilitate easy and immediate access to and exchange of information for customer service representatives to provide seamless cross-platform customer support.
- Develop an online space calculator for consumers to check an appliance's fit in a certain space. This calculator could take into account the need of extra space for connecting tubes, plugs, and door swing.
- Finally, they could leverage the effectiveness of peer recommendations by identifying loyal, vocal customers and amplifying their stories, reviews, and experiences.

Outcomes

The social research team helped inform the creation of a world-class customer experience and engagement program with the client that made neutral customers into happy lifelong customers. The team informed the client's product roadmap, including recommendations on consumer education, brand reputation and amplification, partner experience, and involving expert advocate. They also demonstrated how to streamline cross-channel engagement, and hybridize the in-store and online experience to create a holistic experience that drives brand loyalty. The Deloitte team used the team's data findings and recommendations to adjust their customer experience roadmap to create a more holistic integrated experience for customers engaging with the brand.

The team followed up this research with several customer journey roadmaps for the client to understand how customers who went the "Hire a repair person" path, "DIY" path, and "Replace" path all differed from each other; see Figure 6 below.

The brand was able to re-engage with their third party sales partners to ensure they had easy-to-digest information to share with their customers about why this family of brands was better and more reliable than the competition.

The internal Deloitte team did a project to integrate the client's CRM across their different groups (service, call center, partners, etc.). A connected application development team started to work on a mobile experience to enable service reps for repairs and other customer services to come to each call with all the information they needed to be informed of prior conversations (digital or offline), complaints, history of what they thought was broken, etc.

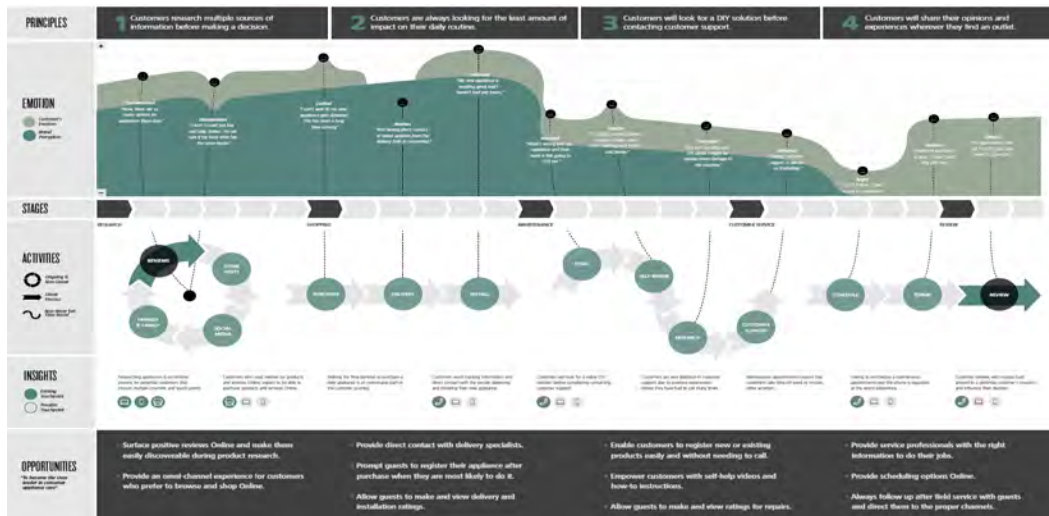


Figure 6. Customer Journey Map and recommended features for engaging with a customer following the “repair path” across the entire customer journey. Copyright © 2017 Deloitte Development LLC. All rights reserved.

Analysis

As with any methodology there are benefits and pitfalls to the approach. The authors have tried to balance the benefits against the pitfalls.

Benefits of the methodology – Overall this methodology is effective in its diversity and real world applications. The data collected using the methodology can easily connect clients with their audience by providing them with actionable insight into their customers’ world, behaviors and passions. It can also quickly integrate customer insights to paint a complete picture of their audience, conversation, and the world their customers live in. The public views and “real-world testing” done by consumers can help inspire innovation to build and deliver the right products and services in the moments that matter.

Researchers were able to reframe several different groups of peoples’ understanding by using digital anthropology methods. Anthropology has been used repeatedly to reframe how people understood the cultures, beliefs and people of other worlds. Using digital anthropology, and specifically social media data in this way, is an update to the methodology, but a continuation to the value of the approach.

One benefit of this methodology is its speed; the team was able to conduct this analysis of numerous brands and consumer groups in just 6 weeks; traditional market analyses similar to these often can take 6 months or longer. Traditionally identifying and setting up interviews with informants can be painstaking, time-consuming, and result in smaller sample sizes. In contrast, “social media analytics can collect millions of comments, posts, tweets, or likes about a particular product or brand, discussed over a few weeks or a few years in a relatively short time.” (Kelley 2015) It can also mean the difference between whether or not a project is viable. (Farris 2005; Poynter 2010)

The speed at which analysts can explore multiple brands is not only generally efficient in cost and times, it can allow these analysts to provide broader comparisons between brands, products, or topics. For example, hard core gamers may be complaining about a particular video game, but is that a problem with just this game, or is this a common complaint among most games of this genre and an opportunity to jump ahead of the competition; or does this audience merely like to complain about this brand and all of its related products? All of these are valuable insights for a company trying to plan their next move, or for an anthropologist to understand their subject better.

Another potential benefit to this methodology is the fact that the data is already digitized, meaning it can be scraped, processed, and categorized by a third-party tool that quickly takes data from forums, blogs, Twitter, Facebook, and other social media data and formats them into a relatively easy to analyze Excel file. Traditional methods of collecting data like interviews, video ethnography, focus groups, and even surveys with any open-ended component typically require hours of follow-up note taking, processing, tagging, and curating before it is ready to be analyzed. The analysts who worked on this project still had to do weeks' worth of reading, tagging, cross-tab analysis, and other data analyses, but saved several more weeks through the collection and digital processing of the social media data.

Social media is also a global phenomenon – there are an estimated 3.7 billion people who have access to the Internet (Real Time Statistics Project 2017), or approximately half of the world's population. This means that analysts are able to research any topic being discussed anywhere in the world. One estimate says 50% of the Worldwide Web's websites are written in English, giving an advantage to English-speaking analysts, but there are also 10's of thousands of websites and millions of conversations in numerous languages (ITU 2015), and the only limitation to studying these topics and conversations isn't distance or time, it is merely the number of languages the analyst speaks.

Researchers are also able to analyze data over an extended period of time almost instantly, looking at shifts in perception or rise and fall in popularity and tone over the course of several months or years:

“Because of this breadth and speed, social media analysis is also effective at spotting trends that are happening in multiple small pockets around the world, trends that would take months to identify using traditional focus group methods.” (Kelley 2015)

Another strength of social media data analysis is the ability to discover what people want to share with their friends and associate themselves with online. People “like” brands, share topics that are important to them, from technology to social issues to recipes, and ask for guidance from their virtual peers. This kind of data can also be used to identify influencers who persuade and influence others, on their decision-making process, from purchases to which school they will attend next year.

Pitfalls of the Methodology – Of course there are limits to this kind of approach. One aspect that is often overlooked when attempting to collect digital conversations is the bias that comes from the researcher themselves, i.e. viewing the problem from their perspective versus the perspective of the audience. Often when creating Boolean queries to collect data, analysts or marketers will write the keywords that *they* care about, or how they *want* the audiences to be discussing the brand. This kind of framing obviously biases the data, and is also not being sympathetic in understanding the context, perspectives, and audiences that

they are analyzing. Part of the strength and handicap of this approach is the need to already understand, or quickly become acquainted with, how consumers discuss topics online; how do they discuss a topic? Do they use shorthand to talk about certain things, for example “MIL” instead of “Mother-in-Law”? Some of this is a chicken-and-egg challenge – how does the researcher understand the subject until they research them – but it is crucial to do at least a little bit of preliminary analysis on the audience to understand how they interact and engage online. One common solution is to become a specialist on one or two complimentary industries; some of Jennifer and Beth’s team have deep knowledge on financial conversations or chronic disease conversations online, and are able to quickly create or repurpose Boolean queries for specific research questions and/or projects.

Another potential weakness of this methodology is that it does not always allow for acute participant screening. With traditional methods the researcher typically already knows a good amount about the participant, including age, sex, marital status, income, profession, location & residence, extracurricular activities, and other details. This typically allows the analyst to better understand how a product fits into the participant’s lifestyle or compare two different user groups. With social media data, even with groups that self-select to belong to gardening or parenting forums, they will not always divulge their demographic information, and often with some communities intentionally mask their offline identity and/or take on a whole new identity and persona.

As the authors discussed in a Deloitte Digital blog post:

“Social media analytics isn’t able to reliably provide demographic details for every post or mention that traditional business or industry ethnographers may be used to. This kind of knowledge is typically available to us only if self-reported by the user. Demographic metrics such as gender, age, and location are often shared, but because people withhold their personal information, offer up misinformation, or fail to keep information current, there isn’t usually as much of this type of information and can be misleading. A blogger who is listed as a single, 25-year-old vegan chef could now be a 28-year-old stay-at-home-mom who forgot to update her bio information; a lifestyle change which undoubtedly would influence her opinions and product purchases.” (Kelley 2015)

Social media listening also cannot capture direct perspectives from people who do not frequent public-facing social media channels, whether it is older individuals, individuals in rural areas (both in and outside of developed countries) who have limited Internet access, people who do not speak English or other common language used on the Internet, or finally individuals who are simply not interested in sharing their personal stories and views online. Yet, as people become more comfortable with sharing their lives online, they are sharing more and more personal and demographic information about themselves that can be collected and analyzed (Hammond et al. 2008; Kelley 2011). Individuals will also advocate for and discuss members of their family and friends who may not be active online – caretakers and grandkids on behalf of older individuals, or spouses or parents discussing their partners and or children.

Opportunities for Improvement & Development

Because the team was brought in midstream of the project, they were not as fully immersed with the client team and client’s goals as is ideal. This meant they essentially had to do the research in a bit of a black hole and then shoe-horn their research into the broader

consulting project after the fact. This is not a terribly uncommon event in corporate research, with client teams realizing once a project is kicked off that they need more data on a topic. That said, it does indicate that more education may need to be done by researchers working in a corporate environment to reach out to teams and let them know why they need to do research before the project starts. Conversely, managers might need to be open to investing those kinds of funds in their projects, so they don't create a campaign or other deliverable that totally misses the mark.

Another challenge is education of the research process, i.e. helping both clients and internal groups understand what exactly social media analysis is, and how the research team applies ethnographic methodologies to social media data. People often think of social media as simply one or two channels – namely Twitter or Facebook. They also assume the social analysts are simply looking at volumetric data like the number of likes or shares, or web analytics, or that they are simply Googling topics. The team is still introduced as the “social metrics” group by some internal managers.

More broadly, it is clear traditional market and social media research should not be thought of as either/or options, but instead viewed as complementary research methods. A wide variety of methods can be used in conjunction with one another. Deloitte Digital's social analytics team has used focus groups and survey data in tandem with social data to look at a question in different ways. They have also informed user experience research with their social media analysis.

Like most tools, the specific project, goals, and research questions determine which method is a better fit. Focus groups and traditional market research may be better for collecting answers to very specific questions for very specific demographics, as well as offering in-depth purchase decision-making criteria. In contrast, social media data analysis may be better at understanding broader trends and perceptions, and how they shift over time, uncovering general themes and perceptions, spotting trends, and locating category influencers.

Summary & Takeaways

The client came to the authors to help “fix” their customer experience, probably expecting to receive generic recommendations for app development and CRM strategies. Instead, the authors completed a thorough analysis of the digital ecosystem of consumer appliance manufacturers across all competitors, to understand the customer experience with all appliances. They then dove into the specific client experience to understand the customer experience.

The research team identified a lifecycle of customer engagement, starting with customers asking for and receiving recommendations, providing feedback across the purchase and repair phases of owning the product, and finally feeding more recommendations and feedback into the loop of customer experience and data out on the public web. The team identified that men played a huge role in the purchase-making decision and maintenance of an appliance, something the client had not considered before. They also identified key pain points for the client that were easily remedied through pre-emptive measures like customer education, rather than waiting for the customer to get mad.

This research helped steer the company away from making the same mistakes they had been making for decades, and allow it to live up to its “legacy” of being a truly family-

focused, multi-generational brand. The research team informed the development of the CRM framework and roadmap and propose new developments for the digital ecosystem of customer experience tools and offerings, including a third-party mobile app and social chat capabilities. They also started to work on a mobile experience to enable service reps for repairs and other customer services to come to each call with all the information they needed to be informed. They were also able to re-engage with their third party sales partners to ensure they had easy-to-digest information to share with their customers.

This project was a good demonstration of how the methodology and the data both have some limitations, however is true of all approaches and data sets. More positively, the project also demonstrated that social media analysis can be used to determine and uncover an incredibly wide range of research questions and help determine and prioritize the most useful next steps.

Beth Kelley is a research manager of social insights for Doblin, part of Deloitte Consulting LLP. She has over a decade of experience blending digital and traditional methodologies to analyze human behavior, looking at B2B and B2C engagements, with a personal passion for studying play and enriching environments. markelley@deloitte.com

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NOTES

1. The names of the manufacturing client and individual personnel, except for the research team, have been obscured or changed to maintain anonymity of the corporation.
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PechaKucha 1: Igniting Action

Time for a Digital Detox: Burnout, Addiction, and Desperation in Silicon Valley

SHAHEEN AMIREBRAHIMI

University of California Davis

There is a crisis brewing in the innovation capital of the world. From protests at Google bus stops, to rallies at San Francisco City Hall over Airbnb gentrification, to a stark increase in homelessness, there is a growing rift between the have and have not's in Silicon Valley. Meanwhile the average tech employee, told they are "making the world a better place," is faced with escalating labor demands, hyper-connectivity, and a shift from "work-life balance" to "work is life." The tech worker is in a contentious position – torn between corporate propaganda and the visible externalities of a for-profit business. To understand how this tension plays out for the average techie, I illustrate a "disconnect camp" where the everyday rules of SF techie sociality are inverted – no technology, no names, no discussion of work, no networking. This carnivalesque pacifies postmodern contradictions about "valueless work" by placing at its center "technology as the problem" – rather than the corporate form. In this way, existential crises of the laborer are quelled, allowing them to recapitulate high-tech corporate-capital.



Shaheen is an anthropologist. He studies corporate innovation praxis, tech culture, and the emergence of UX in Silicon Valley. Learn more at www.whatissshaheen.com or say hi here whatissshaheen@gmail.com.

PechaKucha 1: Igniting Action

The Big “I Don’t Wanna”

ENRICO CULLEN

Related Parts

Medical and social science research provide compelling data to address social issues, societal dynamics, and social determinants of health. But powerful data do not always persuade. Sometimes we know what we believe more than we believe what we know, especially at the “big” institutional level. This is part of the reason qualitative ethnographic research is vital and perhaps why the story is sometimes more important than the data.



**SOMETIMES WE KNOW WHAT
WE BELIEVE MORE THAN WE
BELIEVE WHAT WE KNOW**

Enrico Cullen is a strategist and consummate doer who has taken on challenging projects and guided them over obstacles, around problems, and through uncharted territory for two decades. He currently leads efforts for community-based healthcare reform with a.i.r. nyc, an evidence-based and technology forward social enterprise in New York City. www.ricoenrico.com + enrico@relatedparts.com.

PechaKucha 1: Igniting Action

Using Your Feet: Subverting the Structure of Meetings to Help Teams Go Further Faster

TOM ROWLEY

Stripe Partners

Meetings are a central part of how we work as commercial ethnographers. We meet with our clients to plan our projects and share our findings. We meet with our informants to explore and understand their worlds. However the cultures and practices that inform meeting behaviour can be antithetical to our goals as researchers through their reinforcement of pre-set patterns of thinking and being. In this presentation I explore how we can challenge the affordances imposed by meeting culture. I draw on my experiences founding a global volunteer network and reframing meeting contexts for corporate clients to challenge conventions and identify fresh opportunities for ethnographic praxis.



Photo: Ben Henderson CC

Tom Rowley is a partner at Stripe Partners, a global strategy and innovation consultancy based in London. He co-founded www.goodfornothing.com a global volunteer network that brings together designers, developers, strategists and researchers to volunteer their skills for positive social causes.

PechaKucha 1: Igniting Action

The Challenged Role of Ethnographic Consulting in Startup Centric Innovation

HEINRICH SCHWARZ

Schwarz Innovation

From a position of external consultant on user insights for a German innovation lab, I reflect on a shift in the way corporate innovation is done – from a user centric innovation process towards what could be called startup centric innovation. I have found the outcomes of this turn to be ambivalent – both for the innovation lab and myself. For the lab partnering with existing startups promised greater speed and access to fresh ideas, but has turned out to be rather difficult. For me, the shift has challenged my role and perspective as ethnographic consultant in more than one way. I have worried that a much needed user perspective may drift out of focus when getting prematurely outsourced to startups. But this new process has also been eye-opening; it has forced me to rethink my still linear view of the innovation process towards a more messy and simultaneous one where thinking about users needs to be integrated from day one with thinking about solutions, business models and markets.



Heinrich Schwarz, PhD, is an innovation consultant and business anthropologist. He is founder of *Schwarz Innovation*, a German consultancy specialised in turning deep user insights into innovative solutions and strategies. He has lectured on innovation, business anthropology, design thinking and communication in Germany and the US. heinrich@schwarzinnovation.com

PechaKucha 2: Through the Looking Glass

<Place Label Here> Our Use of Labels at Work

DANIELA CUARON

Empathy

NIK JARVIE-WALDROM

Empathy

A label can be accurate and inadequate at the same time. A fish is a fish, but it's also a sea-dwelling, scale-covered, egg-laying, underwater-breathing creature. Many of us believe in the power of words to change the way we think about something. But are we always aware of how the labels we use influence our perspective? We're on a mission to better understand how, when, and why people use labels at work. We come across labels in project briefs, some emerge during fieldwork, and then there are labels we use to define what we do. We use them to communicate and refocus, but they also restrict our thinking. Through participation, observation and conversation, we've reflected on how labels can help us and hold us back.



Daniela Cuaron is Empathy's research and strategy lead. She applies anthropological research with purpose to create meaningful strategies. Dani's work sees her striving to understand and address people's unmet needs. dani@empathydesign.com

Nik Jarvie-Waldrom is a writer who finds efficient, powerful ways to help others understand what you really mean. Her experience as radio producer feeds into her creative approach to writing, and equips her to identify, structure and clarify relatable narratives. nik@empathydesign.com

PechaKucha 2: Through the Looking Glass

What is the Value of a Perspective?

TAYLOR FERRARI

General Assembly

How do you place a value on a perspective? Well, that depends on what you're seeking to accomplish. During this Pecha Kucha I journey of our current paradigm of Value to explore the role of the ethnographer in mediating business interests and human + planetary wellness. Outside of the metropolitan areas where can't afford to use an app to have someone come do their laundry, there lies an entire universe of perspectives that often go ignored, undervalued. What are the worldly consequences of excluding these perspectives when conducting business ethnography?



Photo by Jen Byers

Taylor Ferrari, is an applied anthropologist and systems thinker who has conducted UX Research for companies ranging from early stage startups, to Fortune 500. Deeply interested in the relationship between Structure and Agency, Taylor seeks to illuminate the ways in which organizations or entities impact humanity, and likewise how humanity feeds the existence of organizations.

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PechaKucha 2: Through the Looking Glass

Shopping as a Modern Quest

ALEXANDRA MACK

Pitney Bowes

As Ethnographic Practitioners in Industry, shopping behavior is a frequent topic of our research. We take on the role of the consumer's advocate, arguing for products that bring value. Or decry the rise of consumerism as the focus of modern life, as exemplified by the drive to acquisition. Recent research on shopping has led me to thinking about quests from a different perspective. While we think of the pursuit of goods in terms of commercialism, in many cases there is an important journey along the way. Perhaps, in some instances, shopping is a quest—a journey toward a goal, in which often the journey itself is as important as the goal, and at others, the true goal is not the object. In traditional anthropological studies, quests that are in pursuit of a “thing” are usually about the basics of survival, and more focus has been put onto those that are spiritual pursuits, leading to a discovery of self and a path into the community. This PechaKucha describes how the pursuit of an commercial item sometimes achieves more than simply the object itself, as the landscape of that journey creates (and is created by) social connection



Photo by Neekoh.fi (<https://www.flickr.com/photos/neekohfi/5607455857>).

Alexandra Mack is a Senior Fellow in Pitney Bowes's Strategic Technology and Innovation Center. Her work is focused on developing ideas for new products, services, and technologies based on a deep understanding of work practice.

PechaKucha 2: Through the Looking Glass

Instax as Objects of Record

DAVID PETER SIMON

Atlassian

Instant camera images can act as a physical-digital assistant and craft richer ethnographic records. The author particularly underlines the importance of photography for design field research, drawing upon his fieldwork work in Uganda. Starting by briefly contextualizing the history of photography in research practice he introduces the concept of Spradley's "objects of record" (1979). How can we optimize the use of instant photography with participants, and make operable projects in corporate contexts.



David Peter Simon is a senior design researcher at Atlassian, a software company. Before Atlassian, David was a design fellow at Medic Mobile, producer for World IA Day, experience designer with ThoughtWorks, and blogger on Indie Shuffle. David studied digital ethnography and information visualization at the University of Oxford (MSc).

PechaKucha 3: Ways of Seeing

Ghostly Spectres: On Ethnography and Identity

ES BRAZIEL

Greenberg Strategy

Taking Avery F. Gordon's definition of a ghost as a social figure making the unknown apparent as a departure point, the piece dives into the "ghosts" silently present in an ethnography on how parents view gender in media. Through utilizing the image of an ethnographer as a "ghost hunter," I track what traces of the social spectral remain invisible to everyday life. Occupying the subject position of "ghost hunter" and "ghost" – the subject of research, and subject being denied research – I assert why business ethnography cannot afford to remain objective when personal and political struggles are on the line.



Image by Aaron Mello, courtesy of Unsplash.

Es Braziel is a researcher and designer working at the intersection of emerging technologies and markets. They currently explore questions around how notions of connectivity, belonging, identity formation, and community are changing in the digital age as a Strategist for Greenberg Strategy and Co-founder of Other Futures Design. bello@esbraziel.co

PechaKucha 3: Ways of Seeing

Emotional Landscapes: Observing and Capturing the Emotionality of Experience

BRIDGET MONAHAN

Vellichor Design

This Pecha Kucha details how the imperative to employ visual thinking in doing ethnographic research work led to a fascination with capturing, through photography, the unguarded, natural emotions people express in their daily lives. It explores the differences in meaning behind these displays and the forcefulness of expressions captured in everyday lived situations. We, as researchers, pay attention to and interpret the words people say but often leave these emotional traces and visceral reactions undisturbed. An ongoing study of and immersion in these visible emotions formed a body of work around “emotional” landscape photography.



Untitled, 2007, Bridget Monahan

Bridget Monahan, is a researcher and photographer. She has worked as a design researcher for a number of product design and innovation agencies, including MAYA Design, Razorfish, and Sapient. In 2017, she started Vellichor Design to concentrate more fully on her art and writing and to work as an independent consultant in the areas of user experience and experience strategy.

bridget@vellichor.design

PechaKucha 3: Ways of Seeing

Indian Classical Dance: The Foundational Element in My Practice of Ethnography

VYJAYANTHI VADREVVU

Rasa.nyc

Do we really understand how we became practitioners of ethnography?

In this talk, I go through a re-discovery of the links between my lifelong training in Indian classical dance and the elements this has instilled in my current practice of ethnography. In dance, we are trained to keenly observe every physical and emotional nuance of an item. Furthermore, we are taught symbolism and theory to deepen our interpretation of dance. This dance foundation has shaped my connection to every aspect of ethnography: from practice to analysis to presentation.



(Left to Right) My mother Satyavani Vadrevu, Legendary Odissi Dancer Sanjukta Panigrahi, and me, 1988.

Vyjayanthi Vadrevu is the founding ethnographer/strategist of *Rasa.nyc*. She leads research on projects ranging from social impact design to corporate technology innovation. Vyjayanthi is a trained Bharatanyam and Odissi dancer and uses movement and choreography to connect to the deepest parts of the human experience. vyjayanthi@rasa.nyc

PechaKucha 4: Transgressions and Truth

A Dirty Perspective On A World Too Clean

LINE GROES

Is It A Bird

EMILIE STUHR ANDERSEN

Is It A Bird

We live in a world where we tend to categorize, quantify and measure a wide array of everyday aspects - from kWh consumption in our homes to Facebook-likes. We argue that this urge to categorize and standardize is problematic as we run the risk of oversimplifying reality. Based on an ethnographic field study of what a 'clean journey' means to train passengers we illustrate the gap between the Danish Railroad Company's cleaning standards and passenger experiences. By contrasting these standards with passenger experiences and attitudes we answer the question: What is left out, when service providers decide to categorize and measure lived reality? We suggest that rather than 'cleaning up' the complexities of human nature and perception, we must recognize and embrace them and find ways to integrate them into our categories and standards.



Line Groes is the CEO and founder of IS IT A BIRD – A strategic innovation agency based in Denmark. She drives the company forward, bringing human needs into focus when innovating for society and business. She is a sought-after lecturer and motivator and holds several representative positions - among others in the Business Council of the Municipality of Copenhagen. line@isitabird.dk

Emilie Stuhr Andersen is an innovation consultant at IS IT A BIRD and an applied anthropologist. She creates meaningful innovation based on human insights into behaviour, needs and aspirations. emilie@isitabird.dk

PechaKucha 4: Transgressions and Truth

Can Cheaters Prosper In Cambodia?

LAUREN MARKOFSKY

Ultimate Software

This Pecha Kucha explores the ways in which the author navigated cheating culture, community norms, and her own biases to think through sustainable education solutions in Cambodia. Students in Cambodia's countryside are structurally disadvantaged and attempt to redress wealth and knowledge imbalances through cheating. However, cheating causes skills gaps that hinder students as they look for jobs, particularly since they are competing with applicants from other ASEAN countries. The presenter discusses how she, and her Cambodian co-teacher, sifted through their competing biases about the merits and pitfalls of cheating in their classroom, settling on ethnographic practice as a way forward. They observed student cheating behaviors, noting the tools, networks, and systems of exchange through which information passed. Instead of penalizing students for cheating, the presenter and her counterpart attempted to transform these deceptive methods into something more productive.



Photo by Evan Cobb, www.evancobb.com

Lauren Markofsky, Lauren works as an ethnographer for Ultimate Software, where she researches people, work, and technology. She has an MA in Anthropology from the University of Chicago. Lauren served in the Peace Corps in Cambodia from 2012–2014, where she developed solutions for community issues in education, health, and the environment.

PechaKucha 4: Transgressions and Truth

Should User Research Be Funny?

MEGHAN MCGRATH
IBM

The jokes people tell about their work can be a rich source of insight for user researchers. Known as “workplace humor” or “occupational humor,” these jokes refer to experiences where the user’s pain or delight is instantly recognizable because it is so pervasive. This PechaKucha will discuss examples and practices your team can use to identify, synthesize, and leverage the occupational humor that resonates with specific classes of users, in order to build a more nuanced understanding of those users



Meghan McGrath is the Design Lead for IBM Z’s Security group in New York.

Ethnographic Film

Andrew's Story

NICK AGAFONOFF

Real Ethnography

Andrew's Story is an ethnographic film portrait of one man's struggle with illness, disability and a decision not to claim insurance. His experience is typical of many people in Australia who qualify for Total and Permanent Disability (TPD) Insurance but who choose not to activate their existing insurance because of the belief that TPD represents some kind of failure on the part of the claimant, or that it binds them into a way of living and working that is less in some way. Andrew's Story forms part of a film set of 6 film portraits that each explore different user perspectives of the insurance cycle of TPD, from initial adoption and consideration of the product, through to making a claim and the post-claim experience. Andrew's Story has been widely used by the commissioning client (an Insurance company) to drive innovation and change within the business, particularly at a product design and implementation level. More broadly, the series presents clear implications for how Insurance companies engage customers before, during and after they apply for a TPD benefit in Australia.



Nick is a qualitative researcher, experienced ethnographer, professional videographer and filmmaker. He consults on brand, marketing, communication, design, innovation and digital strategy. He is interested in assisting organisations to deepen their engagement with target markets, groups and communities for the mutual benefit of all. nick@realethnography.com.au

Ethnographic Film

Ethnography as the first stage of design

MICHAEL ANDREA

The Royal College of Art / ReD Associates

OLIVER LEHTONEN

The Royal College of Art / Ventive Ltd

KOUROSH ATEFIPOUR

The Royal College of Art / Kour Design

A film of the process followed over the course of a 3 month design project creating services for transient migrant populations, starting with a period of in-field ethnography in Myanmar and Thailand.

The film follows a design team from the start of the project, as they select of a broad area of work and conduct research, through to generating concepts and building prototypes. Over the course of the project they develop an understanding of the perspectives of a population, and encounter the challenges faced integrating those perspectives into the design process. The film highlights the value of fieldwork in informing the designer's initial perspective on a problem, as well as the process of reconciling the designer's goals and needs with those of the respondents.



Fruit vendors serving the cross-country trains, Mandalay, 2015

Michael Andrea is a product designer, and ethnographer at ReD Associates – where he helps companies build better products through a deep understanding of their users' lives and motivations. He specializes in fieldwork in emerging markets. Michael.r.andrea@gmail.com

Ethnographic Film

Ageing Gracefully in Singapore: An Interactive Journey

GABRIELLA PICCOLO

Experientia

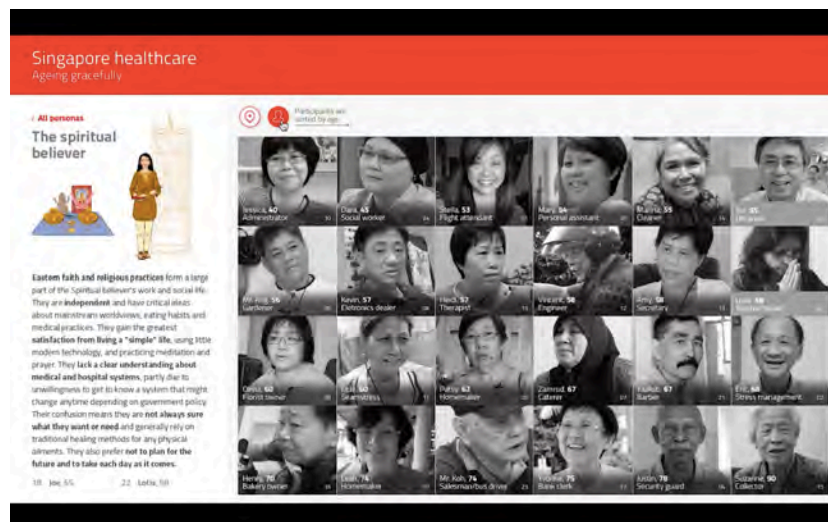
MICHELE VISCIOLA

Experientia

The “Design for Ageing Gracefully” project in Singapore aimed to identify trends, behaviors, and gaps in the elderly healthcare system. The project identified opportunity areas for design-driven innovation in the Singaporean public healthcare space, to facilitate the creation of ideal conditions to support a rapidly ageing society. A key output of this work was a dynamic, interactive, and open-sourced map that contains 24 videos cross-indexed through the 8 personas Experientia identified during the ethnographic research and analysis. This interactive map offers an innovative means of organizing and accessing a broad archive of rich visual research data.

The ethnographic videos and interactive map were important tools when presenting our insights to Singaporean stakeholders such as the ministry of health and hospitals. By positioning the findings very clearly as being directly from the research participants, we were able to reduce institutional resistance to any findings that might have been critical of the system.

The videos also allowed people's unfiltered voices to come through in an engaging way, ensuring their voices were being heard directly when talking about such a sensitive topic as health.



Gabriella Piccolo's diverse role includes desk and field research, video ethnography, participatory design, insights mapping, visual communication and prototyping. She is an experienced video editor and motion graphic designer. She has worked for numerous documentary and film crews, and directed and shot the documentary “Behind the Giro”.

Michele Visciola is President and founding partner of Experientia. Michele's core activities range from leading the growth of the company to pursuing strategic conversations with the market, by helping Experientia clients to integrate UX research insights and design deployment with the business analysis and modeling.

Ethnographic Film

The Double-Edged Sword of Personalized Marketing

MEG KINNEY

Bad Babysitter

HAL PHILLIPS

Bad Babysitter

For young adult “digital natives”, the smartphone is a reliable source of utility and personal growth. On the flipside, this cohort is increasingly troubled by trance-inducing distraction and very aware of the never ending attempts to manipulate their behavior through UX and marketing. What is the future of advertising if, or when, this cohort rejects the current paradigm of personalized marketing and attention thievery? This film urges brand advertisers to establish ethical boundaries now while they are developing new ways to reach, engage, and drive transactions at this pivotal point in the evolution of persuasion and the emerging forms advertising will take with AI and machine learning.



Photo credit: Hal Phillips, *Bad Babysitter*, 2016

Meg Kinney & Hal Phillips are partners in *Bad Babysitter* and specialize in video-based ethnography. Our backgrounds combine principles in social science, documentary storytelling, and business acumen to give organizations critical context and a visceral instinct about the people they serve. We put a human face on the numbers and give data a soul. Based in New Orleans, LA, USA. meg@thebadbabysitters.com hal@thebadbabysitters.com

Ethnographic Film

Huáyì

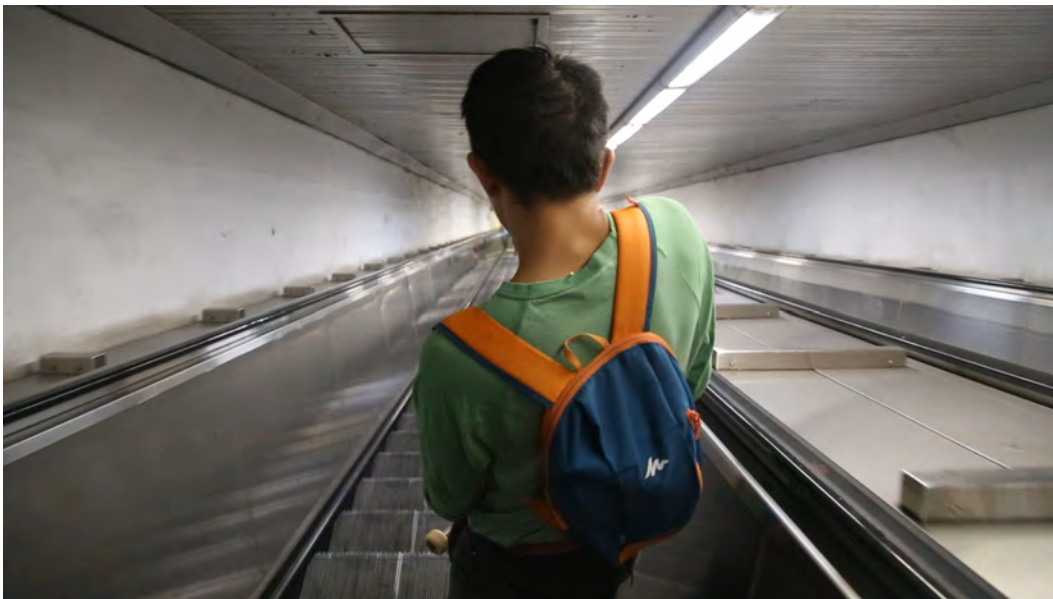
YUEBAI LIU

Stripe Partners

MATTEO PRIMITERRA

Kinonauts

Huáyì is a collection of 'appunti', or notes in English. It seeks to give voice to a new generation of Italians, young Chinese that grew up in different Italian contexts and forced to confront the question of selfhood and identity. In making Huáyì, we wanted to show and convey exactly what we experienced: fragments of stories, of humour and questions. Huáyì wants to walk you through our constantly evolving relationship with the characters and the topic itself: the fatigue of integration. By doing so, it questions the sometimes dangerous format and practice of ethnographic interviews in our industry. As researchers, we must experience and inhabit the environment we seek to understand.



Huáyì, 2016 by Yuebai Liu & Matteo Primiterra

Yuebai Liu is a researcher and writer experimenting with visual storytelling. She is a senior consultant at Stripe Partners, where she manages research, conducts fieldwork and helps clients identify gaps and gain new perspectives. Yuebai.liu@stripepartners.com

Tutorial

Agile for Researchers

CARRIE YURY

BeyondCurious

CHRIS YOUNG

BeyondCurious

Agile is taking the design world by storm, and requiring teams—including researchers—to rethink how we communicate, plan, and act. But is it possible, or even desirable, to apply agile methodologies to ethnographic research? We respond with a resounding yes! While agile requires some new skills, and a different mindset, in our experience by adapting to agile researchers can have an even greater impact on teams. In this tutorial you will:

- Plan your own agile research sprints
 - Resourcing, sprint planning, meeting cadence, reviews/retrospectives
- Become familiar with the terminology used by agile teams
 - Epics, user stories, stand-ups
- Get an overview of common tools used to facilitate agile research, for example
 - Trello, Jira, Trint, ScheduleOnce, InVision
- Learn about the frameworks BeyondCurious uses to guide Agile research
 - MVF, Experience Principles, XIS
- Develop strategies for working with internal and external teams to ensure that research has the greatest impact

You will also get to participate in some fun and interactive activities to practice these concepts. By the end of the workshop you will be ready to introduce agile research to your team at home.

Carrie Yury, head of Experience Research and Strategy at the innovation consultancy BeyondCurious, is a purpose-driven creator with a passion for making things that matter. In her 20-year career as a consultant, artist, and educator, Yury has created impact through understanding people, systems, and organizations. A believer in theory from practice, Yury's non-dogmatic approach to research led her to develop the sprint-based Agile Research methodology that helps BeyondCurious' Fortune 1000 clients innovate at speed.

Chris Young is a Senior Experience Strategist at BeyondCurious responsible for helping clients to examine problems and identify opportunities from multiple perspectives. Through leading agile research sprints, she's able to quickly translate ideas and insights into tangible concepts that help solve pain points and unmet needs. Chris attended graduate school at the California College of the Arts in San Francisco, where she earned an MBA in Design Strategy—an innovation-focused program that integrates human-centered design throughout its curriculum.

Tutorial

Fundamentals of Observational Research

MIKE YOUNGBLOOD

Youngblood Group

This tutorial offers a solid foundation in the art of observation as a field research method for human-centered design and innovation. An expanded, hands-on version of Mike Youngblood's popular EPIC Talk on observational research, it will be valuable for those who are new to this method as well as more seasoned observers seeking an effective toolkit they can use to train others. The tutorial will cover:

- four core techniques for conducting observational research in a wide range of settings
- basic observational data collection
- effective note taking
- selecting the right tools and methods
- ethical considerations related to observing others

Discussion will draw on real-life examples from diverse settings, including Mike's own research in homes, bars, restaurants, car dealerships, urban neighborhoods, medical environments, and more. After instruction and group discussion, tutorial participants will have the chance to practice using specific techniques during video footage of human behavior and short field excursions into nearby Montreal public spaces. Participants will take away a toolkit of observational techniques that can be used to gain quick insight into a human experience or add rich observational depth to interviews and other qualitative methods.

Mike Youngblood, PhD, is a cultural anthropologist working at the nexus of social science and human-centered design. He has worked with for-profit and not-for-profit clients around the world in a wide range of industries, including financial services, transportation, telecommunications, food and nutrition, education, healthcare, and social services. Mike is a frequent speaker in the fields of anthropology and design and has taught at the School for International Training, Maryland Institute College of Art, UC Berkeley Haas School of Business, and Hasso Plattner Institute of Design at Stanford University. His new book is *Cultivating Community: Interest, Identity, and Ambiguity in an Indian Social Mobilization* and he is editor of Sustainability and Ethnography in Business Series on the EPIC blog Perspectives.

Tutorial

Getting Started with Sensor Data

DAWN NAFUS

Intel

Activity trackers, instrumented environments, and other kinds of electronic monitors offer new possibilities and new challenges for ethnographic research. They provide a trace of what goes on when the researcher isn't there, and can help research participants reflect on their lives in a new way. In the right contexts, sensor data can help bridge the gap between ethnographic and data science approaches. At the same time, sensors can be challenging to set up, and occasionally mislead if the context is poorly understood.

This tutorial will help you determine when and how to use sensor data in an ethnographic research practice. We'll talk about some of the practical pitfalls to watch out for, when you do and don't need a data scientist, and some of the trickier aspects of inviting research participants to reflect on the data collected about them. Participants will learn how to:

- Assess sensors for maximum research value
- Ensure the research setup is feasible
- Wrangle data just enough for participants to reflect on it (which is not about producing fancy visualizations)
- Develop interviewing approaches and handle privacy considerations when sensors are in the mix

This will be an interactive forum, with plenty of discussions and hands-on data exploration. The tutorial will not assume any prior knowledge about data, math, or sensors. We will be looking at data ethnographically, not statistically.

Participants will have the opportunity to do a short and easy self-tracking exercise beforehand, so that you can work with data that comes from a context you know well. We'll also provide some example data to play with.

Dawn Nafus is a Senior Research Scientist at Intel Corporation, where she conducts anthropological research for new product innovation. Her ethnographic research has been primarily on experiences of time, data literacy, self-tracking and wearables. Most recently, she has been working on instrumentation and data interpretation for community-based environmental health projects. Her work takes place in the US and Europe. She is the editor of *Quantified: Biosensing Technologies in Everyday Life* and co-author of *Self-Tracking*. She holds a PhD from University of Cambridge.

Tutorial

Immersive Perspectives: Virtual Reality and Ethnographic Research

KARL MENDONCA

Amazon Music

ADELE RAY

Filmmaker; Berkeley City College

With growing interest across domains and industries in Virtual Reality (VR), this seminar style and hands-on tutorial will give participants essential skills for producing and incorporating virtual reality 360 video into ethnographic research. Participants will:

- Develop a critical understanding of VR by understanding it within a longer history of visibility and media studies.
- Learn about different workflows covering *capture* (cameras, rigs), *editing* (software) and *distribution* (viewing platforms) as well as technical elements behind successful VR (frame rates, camera movement, avoiding motion sickness).
- Review examples of VR based research methodologies such as diary studies, walk-throughs, contextual interviews, etc.
- Work hands-on with a VR camera to complete a short project based on a theme or set of research questions.

Ina Adele Ray is a Vietnamese-American filmmaker with over 15 years of experience as an editor and filmmaker on various commercial and non-profit projects. Her recent work as an editor for D3 productions, including the short documentary *Searching for Roots in Canton* aired on PBS in over 40 U.S States as well as on CCTV, China. Adele taught editing and ethnographic film making for several years at The New School and currently teaches at the film department at Berkeley City College. Her personal films have shown at film festivals including the Toronto Reel Asian International Film Festival, the Asian Pacific American Film Festival at the Smithsonian, Chicago Asian American Showcase and San Francisco International Asian American Film Festival among others.

Karl Mendonca is the Head of Design Research at Amazon Music and an artist, educator and filmmaker. His mixed media work has shown at a number of galleries and film festivals including the Lower Manhattan Cultural Council, The Queens Museum of Art, the Oxford Film Festival, Stuttgart Filmwinter, Jersey City Museum and Experimenta (India). Karl was an adjunct faculty at The New School where he taught hybrid courses on media theory and production. He is also finishing a PhD in Film & Digital Media at the University of California, Santa Cruz.

Tutorial

Ethnographic Research Design

SAM LADNER

Amazon

Ethnography is closely associated with the core qualitative methods of interviewing and observation. But ethnographers in business often work with a broad range of other methods, from video and diary studies to surveys and sensors. How do we choose the right tools for any given project? What makes any given method ethnographic? How does quantitative research fit into a typical ethnographic project?

This tutorial will review the typical research opportunities that applied social scientists (regardless of methodological specialty) encounter. Participants will learn how to zero in on the right method for the right research question, how to grapple with the personal challenge of recommending methods that may be outside your skill set, and how to use your ethnographic skill to enhance other methods.

The session will use an “active learning” format, including several “mini-lectures” and several interactive activities (Ebert-May, Brewer, and Allred 1997). Participants will collaborate each other in small groups. No special drawing skill is required, but participants should be prepared to sketch ideas.

This tutorial is designed for practitioners with at least 2 years’ experience in applied ethnography (not for absolute beginners). Participants may have a passing familiarity with quantitative methods, but in-depth knowledge of statistics, analytics, or data science is not required. No specific video skills are required. Knowledge of anthropological, sociological, or psychological theories would help participants get maximum value, but again, this is not required.

Participants would do best to prepare for this workshop by exploring and perhaps journaling about past projects that did not provide clients with their desired outcomes. Consider the methodological limitations of your past ethnographic work (not simply the practical or logistical limitations), and when analyses have been rigorous, but somehow less impactful. During the workshop, participants should pay attention to their own, well-worn comfortable methods, and how to envision departing from them. After the workshop, participants would do well to read theory that explains human behavior, without regard for their disciplinary allegiance. Putting these ideas into practice soon after the workshop—and keeping track of results—would also help participants grow their practice.

Sam Ladner is a sociologist who studies the ways humans live, work, and play with digital tools. Her past work has included workplace studies of engineers, lawyers, and financial services workers, and consumer studies of mobile technology use and social media consumption. She is the author of *Practical Ethnography: A Guide to Doing Ethnography in The Private Sector*, and has taught research methods at several universities. She currently works as a principal UX researcher at Amazon. She received her PhD in sociology from York University and currently lives in Seattle with her husband.

Tutorial

Human Sciences and Value Creation: Building Transformative Value Propositions

JOHANNES SUIKKANEN

Gemic

Where do I find new sources of value in a heavily competed industry?

How can I build more compelling value propositions with transformative potential?

Integration of the human sciences into corporate business development practices enables discovery of new sources of value. Unlike traditional business practices, the human sciences situate emergence of meaningful value in a wider societal context by fostering deeper inquiry into history, human patterns and social systems that frame consumption.

In this tutorial, participants will gain proficiency in exploring and identifying new business opportunities and delivering meaningful value propositions through studying the social, cultural and habitual aspects of human life. This tutorial demonstrates the merits of centering various aspects of humanities and social science at the core of corporate innovation and renewal efforts.

The tutorial consists of a lecture and an interactive session in which participants will learn through case studies how deep expertise in fields including anthropology, sociology and semiotics has been employed to steer business-transformation projects in finance, consumer-packed goods and automotive industries.

At the end of the tutorial, participants will have gained new ways to approach the foundational business questions: Where do I find new sources of value in a heavily competed industry? How can I build more compelling value propositions?

Johannes Suikkanen is a founder of Gemic—a global growth strategy firm that operates at the intersection of business strategy and human sciences. Based in NYC, he helps business leaders translate emerging shifts in culture and technology into clear future direction and better value propositions. His clients range from premium car makers to leading financial technology startups.

Tutorial

Visualization Principles for Talking Less and Communicating More

ROBERT ZOLNA

University of Illinois at Chicago

A simple understanding of the principles of good information and visualization design can help in the presentation, comprehension, and socialization of your research insights and recommendations. ‘Simple’ means a point of view that the aesthetics of your deliverables should never say “look at me” but rather support content by saying “look at this.”

This tutorial will give you a foundational understanding of good design techniques for creating clear and impactful research stimulus and reporting. The session is tailored for researchers with little or no design experience looking to improve their visual design skills, create impact by communicating visually, and build empathy with your designers and design teams.

Using examples and case studies from professional practice as inspiration, this course will expose participants to a variety of topics, all relevant to their professional practice:

- Emphasizing the user voice in storytelling
- Using typography to set tone and importance
- Creating a hierarchy of information for clarity and understandability
- Using imagery as a strategic tool
- Laying out qualitative and quantitative content
- Building a grid for pacing and story flow
- Designing for your audience

Robert Zolna is a researcher, educator, and designer currently teaching and practicing in Chicago. As former Associate Partner and Director of Visual Communication at gravitytank, he has extensive experience visualizing research and strategy for Fortune 50 clients in consumer goods, electronics, healthcare, and hospitality. Robert completed his graduate degree in Human-Centered Communication Design at IIT/Institute of Design in Chicago and is now teaching the next generation of design researchers how to talk less but communicate more at the University of Illinois at Chicago.

Tutorial

Analysis in Human-Centered Design

CAREY PALMER

Northern Trust

JOELLEN KAMES

Northern Trust

This tutorial will give you a framework for understanding the important role of analysis in human-centered design and teach 4 key methods for practicing analysis. The framework proposes a model for selecting and utilizing specific methods that are either top-down or bottom-up, and are practiced in groups or by individuals—but it also stresses importance of creativity, no linear process will always guarantee meaningful insights.

The framework is also a mechanism to help stakeholders understand the outputs from analysis, and enable them to evaluate findings as part of the big picture, rather than just ingesting “the answer.” The ambiguity that accompanies analysis and synthesis can be concerning to extended team members and stakeholders. Engaged stakeholders often want early insights from the field, even hours after an interview concludes. The framework offered in this tutorial will: 1) help stakeholders understand the iterative nature of analysis and 2) define ways in which you can involve stakeholders in your analysis.

To make tangible our recommended key framework for successful analysis, we’d like attendees to conduct observational research and/or user interviews regarding the travel experience as they journey to Montreal. This data collection pre-task will allow us to practice various data analysis methods together during the tutorial. After the presentation and break-out analysis sessions, Carey and JoEllen will share a case study from a recent Northern Lab project. While the content will be approachable for novice practitioners, through reflection, storytelling and group discussion we hope to make the tutorial relevant to experienced professionals as well.

Carey Palmer is an experience design lead at The Northern Lab, an enterprise-wide incubator for Northern Trust, tasked with identifying, prototyping and designing innovative experiences for clients and partners. She spent 8 years prior as a consultant at gravitytank, then dscout mobile research, working across industries including digital technology, consumer electronics, food and beverage, and consumer packaged goods. Carey has a B.I.D. in Industrial and Interaction Design from Syracuse University.

JoEllen Kames is a portfolio lead for the Client and Partner Experience Studio at Northern Trust. She explores “what is,” “what could be,” and “what if” in the context of research, design and innovation. Prior to joining Northern Trust, she led research for wearables and the Internet of things at Motorola Mobility, a division of Google and led design research for the Innovation Center of Excellence at United Healthcare. JoEllen has a BA in History and Philosophy from the University of Illinois Urbana Champaign, a BFA in Communication Design from University of Illinois Chicago and an MDes from the Institute of Design, Illinois Institute of Technology. She guest teaches design research and interaction design at MIT.