

Now You See It, Now You Don't: Ethnography and Selective Visibility in the Technology Sector

LAURA GRANKA
PATRICK LARVIE
JENS RIEGELSBERGER
Google, Inc.

As ethnographers practicing within an engineering driven industry, we often struggle with visibility and its effects. Exposing the methodological and technical underpinnings of ethnographic practice can bring us closer to the teams we work with, but it can also draw attention to the ways that engineering and anthropology clash. In this brief paper we describe the rationale for deliberate and highly selective visibility in our engineering-driven workplace. We will draw on our experience as anthropologists “embedded” in teams of engineers to discuss our own claims to authority and examine how legitimacy is conferred upon ideas and actions in a technology-driven environment.

SELECTIVE VISIBILITY IN THREE PARTS

For the purposes of this brief paper, we will presume that there is some general agreement that anthropology brings value to the process of creating new technologies, even if the understanding of that value varies considerably from one person or company to the next. Here, we would like to focus on a few key aspects of how we perceive our contributions as ethnographers to be understood and valued – both positively and otherwise – based on our experience of work within a very technology-centric industry. Initially, we examine the moments that make us stand out positively as ethnographers who make concrete contributions to our teams and companies. In the second part, we'll talk about how those moments give way to situations in which our backgrounds and roles may be the source of some unease, as the tensions between a social science focusing on culture, an engineering-led company, and business goals may begin to clash. Finally, we take these points of disjunction as important opportunities for reflection about ourselves as ethnographers and the positions we occupy within our industry. As we will argue, the contours of ethnography's perceived value – and its limits – may point to ways to improve our practice of the discipline in technology-driven environments.

1: We're ready for our close-up: ethnographers as brokers of the real

As a start, we'll describe some of the situations where drawing attention to the technical aspects of ethnographic practice has a distinctly positive valence in our workplace. By “positive,” we mean having the effect of integrating us into the teams we work with because our contributions are seen as positive for the projects we work on, for the teams we work

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for and for the company we have in common. These are moments when our role as ethnographers is both distinctive and positive, worthy of calling out in technical detail, and can be distinguished from others we'll discuss later in this paper. These are times when our identities as anthropologists, researchers, or social scientists are seen as being related in positive ways to the production of people-centered technology and, most importantly, to the innovation that is widely taken to be the lifeblood of the industry that employs us.

In our experience, there is no better time to be an ethnographer in a technology company than during a field visit when our more technically oriented team members meet and observe – often for the first time – the people who are the intended users of the technologies we create. As ethnographers, we are often the first to arrange such introductions since we are the ones who set up field visits, train colleagues to carry out observations, facilitate the creation of artifacts to share with our teams. In many instances, we are unique on our teams in that we're charged with actively encouraging field visits for team members who may have never actually met anyone who uses their products outside the confines of the company's offices. We deliberately and consciously put team members into strange and sometimes uncomfortable situations. The strangeness and discomfort are not random, they are studied and carefully calibrated to highlight the ways we perceive our public of technology consumers as distinct from the group of technology creators we work with in our everyday lives. While much of the empirical research we do allows the opportunity to see people hammer on our technical products in ways that allow us to see room for improvement, fieldwork is unique in offering an immersive experience that, in comparison to laboratory sessions or interviews, is an opportunity for truly creative disruption of the assumptions we make about the relationship between people and technology. It is this disruption that allows our teams to identify and empathize with “real people” and “real world” contexts of use. In our arsenal of techniques, participatory field research has high firepower for its ability to get people to see things in new ways. While it may have many other limitations, its ability to achieve high impact on our teams makes it the technique of choice at the beginning of a high-profile project.

This is one of the moments when we actively stage the technical underpinnings of ethnography. We put together often complex research protocols involving diaries, field visits, interviews, observations and even laboratory sessions in which people do all kinds of things to our products that we never imagined possible. We develop matrices to describe our sample and protocols for analyzing the data. These tools communicate not just our technical abilities but also our understanding of the need to craft research that will serve the underlying purpose of the exercise: meaningful innovations for the people who consume and often transform the technologies we create. We discuss each aspect of research, orchestrating debate about the consequences of our methodological and analytical choices. We produce artifacts from our research that serve to remind our team members of the relative strangeness of our users. Images, words and other artifacts from our visits with “real” help remind us of just how different technology users and creators can be.

At this moment, our message as researchers is clear: through the disciplined practice of ethnography, we can systematically examine assumptions about technology to expose gaps in our knowledge and to see opportunities for innovation. We expose our teams to the technical aspects of research through discussions about sampling, method and analysis. We train non-specialists to observe and record field observations (and, perhaps more importantly, about how not to do such things) and provide a frame for the analysis of data collected. When this phase of research is finalized, the experience of the team and the analysis of the data bear the indelible stamp of the ethnographers who engineered it. When successful, the research experience becomes a powerful reinforcement of what is positive about our identity as anthropologists; we are able to show clearly how and what we contribute to our teams and we can do so in terms that are decidedly technical in nature, grounded in social science theory.

What are the parameters of this value and what do they say about our role on teams? One of the ways that these situations achieve value is through a process of defamiliarization (e.g. Bell, Blythe, & Sengers, 2005). Mundane assumptions suddenly become the object of scrutiny, revision and creative transformation. New and creative ideas occur precisely where we see the gaps between what we thought we knew and what we see when we observe “real people” in the “real world.” This is clearly one of the ways that ethnographic practice is tied to innovation, and has been well described and documented by our colleagues (Bell, et al., 2005; Smith & Lewi, 2007). This aspect of positive value and visibility is tied to our roles as brokers of the real, one of the staples of discussions about the role of anthropologists in the representations cultural systems. Whatever the complications of this role – which are both real and numerous – the value it has for us and for the people we work with is tangible and pragmatic. We are able to engineer situations that allow our teams to see opportunities for meaningful innovation, an important currency for status within the domain of the Silicon Alleys, Valleys and Glens of the world.

There is another important valence to the value ascribed to the role of ethnographer in this very temporally bound and highly specific instance. We see this aspect of our value deriving from the affective impact of our work, which changes not just what people think about the relationship between people and technology, but how they feel about that relationship. This change in affect is more than a byproduct of a well-engineered research project. Based on our experience, we believe it is a vital aspect of our contribution to our teams in an applied setting, without which we would be considerably handicapped in our efforts to attain legitimacy and visibility in the environments in which we work.

It is not uncommon for us to witness a substantial change in our team members as a result of the encounters we engineer with the “real” world outside of our workplace. When research efforts are successful, team members might see their work in entirely new ways, with the research experience itself providing a marker for a “before and after” way of seeing technology. Those so transformed often go on to see themselves as “evangelists” for user-centered methods, often trying to convince their co-workers of the benefits of observing technology users in “real world” situations. It is no coincidence that, in later stages of a

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project, we might come to see these people as among our main allies on the team. In this sense, we're not just engineering opportunities to see the gap between what we believe to be true and what we can learn by observing what our intended users do with the stuff we make. We're also engineering situations that will lead people to have strong, emotional convictions to beliefs about what the path to innovation should look like.

It is important to remember that this moment we're describing as one of positive visibility for ethnographers often occurs in the early stages of a project, when new ideas are put forth and teams make initial choices about the ideas they will champion and those they will abandon. The emotional charge that ideas carry in this phase of a project is not trivial. To the contrary, someone who feels strong convictions about a concept is more likely to shepherd it through to later stages of development. As ethnographers, the ability to engineer a research situation that will result in a "conversion experience" is vitally important to the value ascribed to the discipline in later phases of project development. While our roles as brokers of the real is tied in some fairly straightforward ways to innovation, our ability to help team members feel that they see their work in new ways is vitally important to creating innovations that will eventually see the light of day.

Toward what we hope will be some productive speculation about how anthropology operates as an outsider discipline in applied settings, we posit a few elements as essential to this affective transformation. First, there is a sense of surprise or revelation, leading to a sense of disjuncture, or a before-and-after way of seeing previously held ideas about technology users and innovation. This sense of disjuncture leads to a sense that prior ideas may have been false or misinformed. If we've done our jobs well, there should also be an identification with the researcher and with the technology user as legitimate interlocutors in the process of innovation. Notably, the acceptance of our legitimacy in the process of technology creation occurs at the same time as the acceptance of the user.

To some degree, the successful practice of our discipline is related to technical skills that are core to the discipline of anthropology. The ability to create a sense of identification with those who are the users of technology certainly speaks to one of the humanist principles of anthropology, even as it suggests our ability to put together persuasive research plans. If our fellow technologists identify with us as researchers, we are successful in demonstrating our credentials as scientists in a way that is convincing. In both of these instances, our success depends upon our ability to communicate aspects of our technical expertise in ways that largely identify with our teams as members of a common family of believers in science, especially if we emphasize our commonalities rather than our points of disagreement.

But in some ways this moment of success and visibility as ethnographers is related to our ability to successfully stage the research experience and enhance its impact on our teams. The surprise, the sense of "before and after" and the ongoing sense of transformation are not unlike the experience of magic, also a highly emotional experience dependent upon identification with the performer and the experience of disjuncture. The relationship of magic to technology has been fruitfully analyzed in the context of users' delight with novelty

and utility (Smith & Lewi, 2007), focusing our attention on artifice and surprise as key contributors to the success of household technologies. In sociology and anthropology, theater and magic have been shown to be essential elements of “scientific” disciplines including clinical medicine (Goffman, 1959; Goffman, 1963). We would like to extend these analyses to the practice of ethnography in applied technological settings. Given the importance of affect and staging in our work, we cannot help but understand the performative aspects of our role as vital to our success in applied technology settings. And, as one might expect, this aspect of our job performance is also an important contributor to the moments in which we are – or would like to be – less visible as ethnographers.

2: The hazards of the spotlight: when being an ethnographer isn't so great

The contours of our contributions that have been recognized as valuable by the teams we work with also point to the ways that our role as ethnographers can be called into question. Our role as brokers of access to “real” can mark us in ambivalent ways, potentially exposing the disjunctions between anthropology and the other disciplinary knowledge present in the workplace. While contact with users may inspire creativity and innovation, the idea that non-experts might be legitimate interlocutors in the process of developing technology may well clash with the ethos of engineering. The identification of the “real” and the importance of affect in the attribution of value to our research may also set us up for conflict as we may unwittingly surface disjunctions between ethnographic method and business planning. Finally, the importance of performance and artifice in the execution of successful ethnography may in itself pose hazards to our own ability to identify real opportunities for technological innovation, one of the primary currencies for our success in our chosen industries. In seeking to create situations that will lead to creative defamiliarization, we may unwittingly overemphasize the spectacular in detriment of the ordinary or mundane ways that technologies fail to meet the needs of real users.

First, exposure to “real” contexts and people posits that they are legitimate interlocutors in the development of technology. While many of the “real people” we may have contacted are in fact themselves creators of technology or experts in fields outside the sphere of “coding”, this position is potentially still at odds with one of the primary tenets of engineering: that a studied and expert application of science to known problems will lead to improvements (“progress” in more optimistic times that have long since gone). While we are often focused on engineering as a technique for making things, we may forget that the discipline has its philosophical roots in a modernizing ethos that juxtaposes the expert against the naïve, and reinforces the social division between creators and consumers of technology (e.g. Holston 1989).

If ethnography's function is to identify unmet needs and point to a path toward productive innovation, engineering is focused on the creation of tools to bring about innovation through increased efficiency or productivity. As colleagues, the engineers we work with are often judged on their abilities to do such things as ship code that meets given

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standards and timelines, create features that are compatible with existing technologies and – not unimportantly – dazzle their colleagues with their technical skills. As ethnographers we rely heavily (though not exclusively) on specific, highly transformative experiences to point the way toward innovation. In contrast, engineering tends to evaluate itself in terms that emphasize the scale of reach and the numbers of uses/users engaging with a given technology. In an engineering worldview the mark of successful innovation is in the number of users adopting a product; for an ethnographer it may first be in how the innovation fulfills needs and transforms experiences. While both perspectives may be aligned in long-term goals, differences along the path to innovation are likely to surface as instances of mutual incomprehension.

When and how do these disciplinary disjunctures appear? While there are many moments when we can identify clashes between the disciplines on a team, there are two clear moments when there is a decided advantage to being an engineer and a clear disadvantage to being an ethnographer. Situations calling for prototyping can be among the most difficult for ethnographers. While many on the research staff can and do prototype their work, the ability to translate an opportunity to innovate into a thing that is recognizable as what that innovation might be is a key one on the team, and is one that is highly esteemed in a technological environment. While as ethnographers we might be brokers of “real” experiences with “real people”, the technical skills involved in doing so do not necessarily qualify us to be considered “real” technologists. When it comes to fleshing out how a technological innovation might actually look or function, a divide appears between ethnographers as “experience brokers” and engineers as people who can “make things.” Not only do they make things, but the prototyping techniques they often use provide the elements of magical performance about what innovation is and what it should look like that we often cannot match. While our leverage as ethnographers may have to do with our ability to broker the “real” through research, our engineering colleagues leverage their equally performative ability to render the real through code.

It is at this moment that our visibility – and the value of our contributions to teams – can be called into question. Much as the technical details of ethnographic research are complex and require explanation and even debate, the specifics of producing a technological innovation are equally complicated. But so long as these specifics are opaque to ethnographers, we are effectively excluded from any debate about them. Their magical qualities are proportionally greater since the codes they write in are largely exclusive to the realm of engineering. Once excluded from discussions about what the specifics of an innovation might look like, our authority and legitimacy as technology creators can be questioned. Who should determine the specifics of an innovation – the things it will and won’t do, the systems it will and won’t work with, the level of complexity that it will have and the type of user it will target? In our experience, when these are the questions being posed, our legitimacy as creators of technology is called into question. How can we talk about specifics if we don’t understand the capabilities and limitations of the tools for the creation of technology? If we can’t code, are we really qualified to debate the specifics of a technological product? Too often, we are thought of much as the people we introduce our

teams to – as people who stand in as opportunities to rethink some of the concepts related to technology, but not as legitimate creators of that technology. In this example, the “real” corresponds to the “naïve”, or the consumer of technology rather than the creators. The “real” we broker may end up rubbing off on us, effectively turning us into “naïve consumers” rather than creators of technology. This is consistent with our experience of being called on to be the “voice of the user” when it comes to evaluating things that others have previously created without asking our input or opinion.

This is not the only moment in which our visibility as brokers and interpreters of the “real” can expose significant disjuncture. When we put together our technically savvy research plan, debate with our teams about the pros and cons of specific strategies and finally arrive at a plan that will expose us to the right kind of “real user”, are we sure that our legitimacy as brokers of the “real” will be recognized across the company? What appears to us to be technically well-founded sampling, ensuring that we are exposed to the right kinds of situations in which to ground our search for innovation might appear to others in our applied settings as remarkably similar to, for example, a business plan or a marketing strategy. While we may go to some length to include product and business strategists in our research planning, we may still witness competing claims to what counts as “real” for the purposes of determining the specifics of a plan that involves creating and launching what might count as an innovation. Consistently, we run into clashes, large and small, between the idea of research from the perspective of design innovation and from the perspective of business planners. When we suggest that we look at users who are “on the edge”, for instance, we generally mean that the user in question is placing some demand on a technology that is unusual or somehow potentially instructive for a design team. When business planners think of “the edge” they may think very differently – as users who might be tempted to use a rival technology or a work-around. While these groups often overlap, there are times when they do not. For the purposes of design research, looking at very different groups in very different contexts might be the right thing to do. From a marketing or business planning perspective, this might mean looking at users in two countries where the product is “winning” and “losing” that, for us, are virtually identical from our point of view.

What, precisely, might the boundary be between ethnographic sampling and business planning? In our experience, this is another example of a moment when our visibility on teams can diminish as our legitimacy as technology creators is questioned. As with engineers, our claims to be legitimate interlocutors can be called into question by those whose role is to plan launches of product in a way that is consistent with business goals. What is “real” for the purposes of an ethnographic research project may not count as “real” for the purpose of business planning in an industry that must remain profitable. Like the disjuncture with engineers, this potential clash over the meanings of the “real” with business planners can be a moment when we not only have less visibility, but when we purposely seek out a less noticeable role in decision making, even when doing so means that we may have an increasingly tenuous relationship between a given insight and the actual product that ends up shipping to consumers. We tend to shy away from these situations precisely because we feel

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unsure about our grasp of the skills required to tie our research methods to business outcomes.

Finally, there is one last moment of diminished visibility worthy of discussion precisely because we as ethnographers are the ones who shy from a spotlight we might otherwise seek. As brokers of the “real” we also put ourselves into a context in which what counts for us as “real” are the experiences that translate into innovations that later ship as product and are used by real people – preferably many of them. Given our dependence on team members, and the relatively greater value of highly transformative experiences over relatively subtle shifts in thinking, we find ourselves facing what may be something of a conundrum. If it takes major shifts in thinking to produce the kinds of innovations for which we will be credited, are we then less likely to focus on the mundane, everyday failures of technology that also might show us opportunities for new and better stuff? As research in development has morphed into research-as-development, smaller, more subtle shifts in thinking over time are more difficult to trace back to researchers. Our contributions need to be splashy, memorable and actionable in the very short term. It is in this context that we have come to see “extreme” or “edge” not just as key components of an ethnographic sample, but as essential elements to the kind of design inspiration we need to be appreciated by our colleagues.

These shifts are also changes in the way time and affect factor into the way research is done and to some degree reshape what researchers have to do to remain relevant in technology-focused industries. As in the previously discussed moments when our visibility and authority are diminished because of the disjunctures between our work and that of our colleagues, when we emphasize high impact, affective change we are responding to a workplace context that demands that our work generate high-impact findings that are actionable in the short term. But there is also a difference here in that we are rendered relatively less visible as ethnographers because in part, we suspect that some part of our work might lie outside the boundaries of legitimate anthropological practice. In other words, we may well suspect that the theatrics of ethnography required to be effective in the workplace may locate us as ethnographers outside of the boundaries of “decent” anthropology. Much like in Goffman’s (1963) studies of people with “spoiled” identities, we find ourselves as outsiders to multiple groups to which we might once have belonged: team members, company business planners and even our own disciplinary colleagues.

3. Taking a bow: who gets the applause?

When it comes time to take and distribute credit within our teams, where do we stand as ethnographers? How does our variable visibility impact our relationship to the symbolic and material economies of the technology sector? Especially since the moment of impact and visibility that we describe in this paper occurs at the start of the project, our overall impact on the team and the company appears to be increasingly diluted as things move forward.

How might we assess how we're doing as ethnographers, or even put forward some ambitions for how we'd like to do?

Understanding our place within our industry, our company, our teams and our profession is important for many reasons. For those trained in ethnography, this is a tool of our trade; although such reflections have in fact become somewhat cliché, they speak to a canonical genre of literature. Discussions of place, position and visibility are in many ways constitutive of our professional identities. How can we leverage the insights we've gleaned from years of ethnographic practice within an engineering focused context to increase not only our visibility as researchers, but our overall efficacy as technology creators? We have a few thoughts, mostly grounded, as one might suspect, in the principles of our own discipline.

If our influence is partially related to our ability to "pass" as technologists, is it not also true that adopting the language, behavior and even values of our technologist colleagues might be a sign of our success? We argue that this is the case, at least some of the time, and that we might do well to pursue greater integration with our technologist colleagues. Should we not learn the language and logic of the business side of our companies? Should we shy away from discussions about how our methods relate to business strategy? Perhaps markers of our own success might include our ability to pass not only as legitimate creators of technology, but as colleagues who understand and are capable of shaping business goals.

First, we need to be better translators – translating not just user needs for the engineering world, but vice-versa; becoming literate and conversant in technologies and their capabilities and limitations may be just as important as being able to move from observation of the "naïve" to opportunities for innovation. Further, becoming much more conversant in the idiom of quantitative metrics may enable us to speak persuasively to audiences that are key to us, even if that requires a mastery of a different sort of theatrics. We also need to be better organizational ethnographers – identifying, anticipating and acting upon the potential disjunctures between our own disciplines and those of engineers and business planners. This also entails understanding more of the currency of our own industry: technical prowess, ambition, transit in and around the company. While we may not want to exhibit all of these traits, certainly understanding them will help us not just be more visible, but be more effective.

NOTE

This paper reflects the views of the authors, and may not represent the official position of the employer.

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