Tangible Tools in Para-ethnographic Fieldwork

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This paper sets out to explore how tangible tools can invite industrial managers to have a say in how ethnographic fieldwork can be conducted to explore the use of products in real-life contexts. We draw upon video materials and field notes from a series of customer visits in four European countries. Our main aim is to address the following questions: How can tangible tools help facilitate dialogues in the field to bring awareness and to challenge taken-for-granted assumptions? In what ways can company managers be involved in conducting fieldwork? To what extent can we involve the participants so that they do not solely serve as informants? Our arguments focus on challenging industrial manufacturing companies' assumptions and expectations about their customers' use of their products, as well as bringing awareness to company managers about the advantages of ethnographic praxis instigating collaboration across different levels. By showing that ethnography essentially becomes a collaborative practice, the arguments challenge the traditional approach to ethnographic fieldwork and thus takes a more social form that invites co-production of knowledge. Our findings show that tangible tools are powerful in 1) challenging informants' perspectives and 2) empowering non-ethnographers to take ethnographic roles in fieldwork activities. We also argue that this "para-ethnographic" practice suggests that ethnographers as "facilitators" in a process of entrusting co-producers of ethnographic knowledge will increase the spectrum of skills and the impact of ethnographic work in business contexts.

INTRODUCTION

In multidisciplinary situations, relationships between stakeholders are being increasingly seen as valuable sources for innovation. This is particularly crucial for the concept of Participatory Innovation (Buur & Matthews 2008), upon which our research approach is built. Although it seems more difficult to bring conflicts to the surface than to disregard them, new meanings can emerge in the interaction of a multitude of crossing intentions (Buur & Larsen 2010). When working on a large-scale project engaging multiple stakeholders, challenges have emerged around the understanding of the different roles and perceptions. We became interested in exploring what these challenges meant for ethnographic praxis and how our work with tangible tools impacted this.

Contextualizing the "SMART Project"

This paper draws upon an innovation project developed within four Danish medium-sized manufacturing companies. Together with the companies' management we conducted field studies involving their customers to evaluate and re-design the companies' products. We utilize the generated qualitative empirical data, which includes video material and field notes,

in an attempt to uncover new ways of shaping ethnographic praxis. The innovation project is called the 'SMART project' (*Suitable, Moderate price, Attractive value, Return on investment, Timely to market),* and was organized by a private research foundation, financed by The Danish Industry Foundation and managed by four different external partners: the University of Southern Denmark (SDU), the Technical University of Denmark (DTU) and two consultancy companies. It was developed in collaboration with Danish manufacturers and customers from Germany, the United Kingdom, the Netherlands and Poland over cycles of twelve months for each of the four companies involved. The project was developed from an assumption about the quality and usefulness of Danish products. The claim was that manufacturers in Denmark tend to over-specify their products with unnecessary features, rather than lowering prices to compete with similar products on the European market.

During this project, various people with different interests were involved: sales and product managers from manufacturing companies together with purchasers, dealers, planners, technicians and users from customer organizations. At a larger scope, the project involved governmental, organizational and research interests which had to be taken into consideration when designing workshop materials and carrying out the fieldwork.

In this paper, while acknowledging that our reflections were influenced by all four project cycles, we will only focus on the two more recent collaborations. We will primarily draw upon empirical materials gathered from our collaborations with two manufacturing companies: a producer of compactor machines for handling cardboard waste and a manufacturer of refrigeration equipment for industrial kitchens.

Tangible Tools in Design Research

In the search for inviting participation in design research, tangible artifacts have been explored as tools to help people to express their thoughts more visually (Sanders 2000). The Scandinavian tradition of Participatory Design has extensively used these tools in co-creation sessions as a means to facilitate a dialogue between users and designers while generating new ideas for products and services. The concept of 'Generative Tools' (Sanders 2000) is a practical example of this approach. In Generative Tools, physical materials and objects of different shapes are given to participants who are prompted to make sense of the given materials as a way to express their own experiences and ideas in relation to a particular matter. The main assumption is that the tools' visual and tangible qualities reveal personal stories and lead to an awareness of subjective viewpoints.

In a similar manner, the use of tangible tools has been argued for in relation to processes of collaborative business modeling. Buur et al. (2013) suggest that in comparison to the traditional business modeling methods, the advantage of using tangible tools is that they allow participants without a background in organizational management to understand and innovate a company's business. The tangible nature of the tools also invites different stakeholders of a business venue to relate more easily to one another in a value network.

> Common to all these techniques [techniques for modelling business] is that they keep people's hands busy, which often appears to take the pressure of verbal articulations. The use of objects and images provides an indirect means to commence talking about topics, which may be difficult to approach head on. It seems to even out hierarchical imbalances between participants and allow people to effortlessly contribute with their different

> perspectives. Providing material as 'things to think with' also seems to provoke more unexpected discussions. (Buur & Mitchell 2011, pp. 373)

In our work, tangible tools are sets of physical materials designed within a particular framework, aimed at supporting the execution of research activities in the field. Although inspired by Buur & Mitchell (2011) and Sanders (2000) as described above, our approach was slightly different. We intended to design tangible toolsets to facilitate dialogues in the field; not solely to understand the participants' everyday practices or to prompt them to generate product/business ideas. Our aim was to bring awareness to their own assumptions and challenge how they perceive the world, or in this particular case, how company managers perceive their customer's use and appreciation of their products.

Para-ethnographic Operations

As Vangkilde and Rod (2015) explain, ethnographic work is increasingly becoming more focused on collaboration, which is opposed to the traditional Malinowskian way of understanding ethnographic praxis. That tradition is partly focused on observations from distances to help develop objective descriptions and analysis. Seen in the light of this new approach, ethnographic praxis is now moving beyond the traditional conditions and is taking more of a social form, in which it provides possibilities for closer collaborations between people in the field.

We will here discuss the concept of para-ethnography, which according to Holmes and Marcus (2008) mainly refers to the notion of building an analytical relationship with the informants we seek to study. This relationship is in some cases founded on the desire to explore ethnographic inquiries in collaboration with the participants involved in the study. However, in other cases this is a condition that according to Marcus and Holmes (2008) cannot be avoided (even if we might wish to), since informants often have their own agendas and interests, and for the researcher/ethnographer to get access to the informants' practices it becomes necessary to involve them. This leads to a different kind of relationship between researchers and informants, where the informants are treated as partners, who have a say in how the research is conducted and interpreted, rather than being perceived as objects from which information needs to be extracted. Allowing the relationship between these two parties to emerge differently than from traditional ethnographic fieldwork opens up an exchange of insights and the development of a new analytical framework. Even with different understandings and aims of the analysis, it is possible to collaboratively form the research towards an understanding of the informants and their everyday practices.

Holmes and Marcus (2008) argue that para-ethnography is a concept undergoing continuous development due to its novelty. Their main findings show that the informants, who are treated as research partners, are no longer simply informants to be understood and whose insights need to be translated into design criteria. Instead, they act as alliances that are already present within the environment where the fieldwork will be taking place. This gives rise to an interesting connection between formal anthropological inquiry and authentic field materials provided by informants that are involved as para-ethnographers.

Thus, the research presented in this paper, sheds light on a para-ethnographic collaboration due to the active involvement of the company managers in conducting fieldwork, as well as the engagement of customers and company employees in discussions that sought to explore and challenge their perspectives on a product's use. With an

additional focus on work practices and social relations in the setting of manufacturing companies, our aim is not only to present other researchers with insights into how this kind of relationship can be developed or how it can enrich their work and bring valuable knowledge to the analysis. It also seeks to, as Powell (2015) states, bring awareness to the fact that ethnographers are already engaged in this kind of work and that we need to bring recognition to the importance of these kinds of relationships when executing ethnographic fieldwork in industrial contexts.

DESIGNING TANGIBLE TOOLS TO CHALLENGE PERSPECTIVES

Through the use of tangible tools we aimed to support discussions and help participants easily relate to the research agenda and to emerging issues regarding the design of their products and work practices. At our meetings, we introduced several tangible tools, however in this paper we choose to introduce just a few that we argue have played an important role in instigating dialogues and challenging existing assumptions and perceptions.

For this particular project we designed four sets of the tangible tools through a process of several iterations that experimentally allowed the toolsets to develop through on-going involvement in the field. Two of these four toolset were "stakeholder chess" and "competitor landscape". The stakeholder chess was presented as a combination of chess pieces with stakeholder cards and a chess-like board in a circular shape. It addressed the dependency that companies have on other individuals or organizations to create their business. By igniting a conversation around this puzzle of relations, it provided a quick understanding of the particularities of the industry and it helped to establish a common language among external partners. The stakeholder chess invited participants to think about the people involved in the value network within their specific industry. They were initially prompted to fill out the stakeholder cards as detailed as possible, writing in the level of job titles on the cards. They were then challenged to match the cards with the chess pieces– taking into consideration the different colors (internal vs external actors). A question for them to consider was, for example: *Who would be the king? And why?* The participants were finally asked to position the pieces on the circular board according to the distance of the competitor's relationships (Figure 2). This forced the participants to do something collaboratively, which was crucial to start the discussion. It was not about mapping facts, but rather to initiate dialogue and build awareness of the different perspectives a single participant might have on the web of relations, which would depend on one's own role in the business. In this way, stakeholder chess was about drawing attention to stakeholder relations and positions, and especially to highlight that it is a dynamic landscape that looks different depending on the position from which one is standing.

Figure 2. Example of the "Stakeholder Chess" activity run with company managers in Denmark.

Similarly, the Competitor Landscape was a 2x2 matrix that showed how competing suppliers were ranked according to price and function. It collected essential information about competitor profiles and showed the customers' perceptions of the business (Figure 3). This activity involved the participants by asking them to fill out their company profile and giving the companies "nicknames". Participants were then instructed to make profiles for the companies they were currently collaborating with, had previously collaborated with or were considering collaborating with in the future. They were then challenged to place the company profiles on the matrix according to price and function/quality to discuss each company's strengths and weaknesses. On this foundation we encouraged discussion about the ways in which the landscape had changed in the past few years and how the participants imagined the landscape might change in the future.
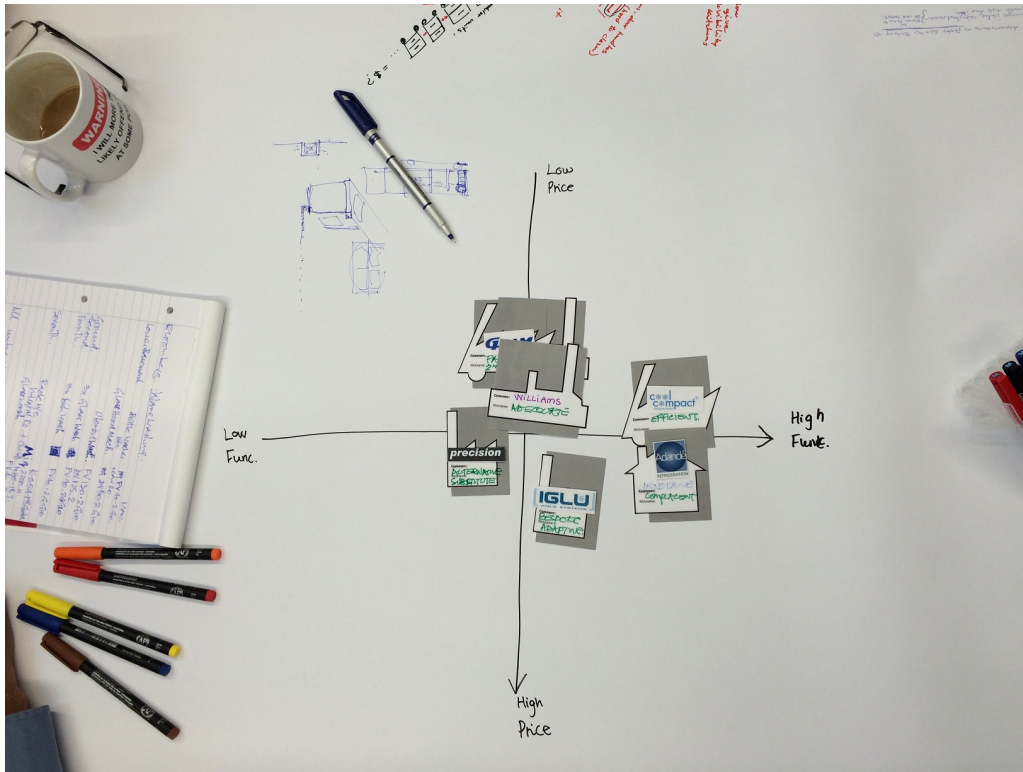
Figure 3. Example of the "Competitor Landscape" activity conducted with customers in the UK.

An example of how we used the Competitor Landscape tool can be drawn from a meeting in Poland with a purchaser of the cardboard compressor, who was responsible for a large Polish chain of supermarkets. We were present as the design researchers facilitating the activities, together with the product manager, who was following us along in the fieldwork. At this point, we had given the product manager an increasingly active role as a co-producer of ethnographic insights throughout our collaboration. The activity with the Polish purchaser began by us asking him to identify three competitors that he knew well. He was invited to select three factory-shaped pieces to represent each of these three companies according to his perception of the company size and characteristics (medium, large, traditional, progressive, etc.). The characteristics of the pieces were not predefined by us, but were open for his interpretation. While choosing the pieces, he was asked to give the competitors nicknames that reflected his perception of them. Instead of settling on a decision too quickly, we encouraged him to freely articulate his impressions until he found nicknames that he was satisfied with. While the pure visual comparison of nicknames was already very valuable to us, his attempts to put words on a feeling were even richer. Once he had made his decision on the nicknames, we finally invited him to position the pieces in the matrix of "functionality" vs. "price". We asked him to focus on a specific product line, making us capable to compare responses from other sites, and we mainly encouraged a discussion around the functionality of the products. Our intention here was to get an

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understanding of his perception of the landscape within which he operated. From an ethnographic perspective, this was an interesting way to highlight different perspectives in the "business landscape".

Interestingly, the Polish purchaser ended up positioning all the pieces in the exact same spot of the matrix: in the very center. When asked why, he explained that from his perspective, there was essentially no difference between the three companies. As a purchaser he was purely interested in the value the machine brought to the supermarket stores, rather than how well it actually works. For him, the only functionality that all the machines had was to compress cardboard. This realization struck us in many ways. As researchers we were new to this particular industry prior to the project and, as expected when one enters a new domain, we had worked hard to understand it the best way we could. However, in our attempt to understand the industry, we had focused so much on the particularities of the competitors' products that we were unaware of their striking similarities. This episode also challenged the purchaser himself to become aware of his own perceptions of the different products on the market, and ultimately made us empathize with the customers who do not hold a technical background and thus might face great challenges in understanding the differences in the various products' functionalities. Not only did this moment make us aware of perceptions that were not visible before, but it also provoked the underlying assumptions of the product manager who was following us along in the fieldwork. It was quite shocking for him to see the three companies positioned at the same spot. Being the lead of the engineering group, he was knowledgeable about the three main companies and their products, which put him in profound disagreement with the purchaser's visual representation of how similar they were. For him, the products offered by these companies differed deeply in functionalities, features and interfaces. In opposition to being accompanied in the visits by salesmen, who are the ones in direct touch with the customers, we deliberately insisted on the presence of a product manager in the field with us. Our rationale for inviting him was to build a relationship with customers through a meeting that was not meant to sell any products, but rather to allow the customers to feel welcome to express their genuine impressions of the products. Thus, we aimed to challenge the internal beliefs among engineers around how customers perceive the competitors' and their own products.

A few weeks earlier, before going on the trips to visit customers outside of Denmark, we met the same product manager and some of his colleagues. He was an experienced engineer in charge of the product development team. In our first meeting, we prompted him, together with one of the CEO's and the lead of the sales team, to conduct the same activity of positioning competitors in a landscape. One of them took the role of explaining how he had thought it through beforehand and the others jumped in and out of the discussion to agree or challenge his explanations. The tangibility of the tools helped visualize their landscape of competitors, as well as their ongoing disagreements on where to position each of the pieces. This interaction proved to be of high significance for us to build a solid understanding of the connections within this new domain. While we encouraged discussions about their perception of the current landscape, we also prompted them to talk about their positioning in relation to their competitors in the past few years, as well as how it could change in the future.

We wish to emphasize that the tangible nature of the tools encouraged the participants to think of our work as slightly different from traditional ethnographic fieldwork. Solely the

act of unrolling a large sheet of paper on the table (for one of our workshop activities) caused the company employees to look confused and to remove their coffee cups, glasses of water, notebooks and other office-related objects from the table in an unexpected manner. In every case, the simple act of unrolling an odd-sized piece of paper gave the participants a clear hint that we would be doing something different than a traditional business conversation. Our intention with these tools was to challenge the informants, to make explicit what might have been implicit to them all along. We believe that the tangible tools work as physical facilitators of dialogues, which provoke reflections on what matters for both customers and company managers. For this reason, we intentionally designed the tools to be concrete enough to provoke manufacturer's assumptions on how customers and users perceive their products, yet abstract enough to have an open-ended focus that could afford unpredictable follow-ups. In similar veins, the process of designing the tools was likewise grounded in an exploratory approach, as we developed and tried them in the iterations of the project itself. Throughout this iterative process we came to change shapes and types of materials (from acrylic to paper, for instance) in a constant search for a balance between concreteness and openness. However, each encounter introduced us to new puzzles of relations that proposed different sense-making for the activities, calling for situated acts of improvisation. Eriksen (2012) sheds light on this understanding, arguing that transformation among different situations can be marked by changes in time, topic-(re)framing, place, materials, or groups of people. In reflecting upon transformation of roles and materials experienced in this project, not only do we agree with her, but we also add that each encounter in itself establishes a stage for improvisation and shift of roles between people and materials.

CO-PRODUCING ETHNOGRAPHIC KNOWLEDGE

In our work, tangible tools are strongly argued to have an effect on the interaction between researchers, company managers and customers in different ways. The challenge, nevertheless, is to understand how this actually impacts relations and roles. In this research we are particularly interested in how these tools can challenge roles and perceptions in co-producing ethnographic insights. We suggest three forms in which this impact is identified in our empirical material: 1) when the fieldwork was facilitated by us synchronously during our collaboration with the managers and customers, 2) when the company managers in particular moments of our collaboration ran the activities with the tools, and 3) when the company managers started making use of the toolsets in their own work practices asynchronously after we handed over our responsibilities in the project.

It is not new for us to experience an immediate reluctance to engage with playful materials that bring people out their comfort zone. Prior to this research, together with other colleagues, we have introduced tangible tools in various research and business contexts. From our experience, it does not take long for people to overtake their initial reluctance and start a conversation mediated by the materials (e.g. paper, plastic or wooden bricks). In this research, we have observed similar situations a few times when we introduced the chess pieces for company managers when talking about the key players related to their industry. In the SMART project, one of the companies with which we used these tools was a producer of fridges for industrial kitchens. When involving three managers from this company in the "Stakeholder Chess" activity, the conversation began with a hesitation in naming the chess

pieces: *"well, it all depends on which country and customer we are talking about"* – one of the managers quickly argued when we asked them to give titles to some of the pieces. However, after we encouraged them to choose a particular case and point out specific job titles for each stakeholder, they provided us with a rich understanding of the other companies whose businesses are positioned in between the manufacturer and the final users. This left us with an understanding that some export markets hold a wide spectrum of dealers and planners that are responsible for relevant tasks to the market, such as the involvement of kitchen layout designers. These intermediate professionals become part of the informants in our study, taking the role of what we refer to as "customers".

Another form in which we explore the impact of tangible tools is manifested when the informants become active in a co-production of ethnographic insights, as well as when the company managers were encouraged to carry out field visits on their own without being held back by our agenda or methods. We specifically encountered this form of para-ethnography together with a product manager who accompanied us during fieldwork trips. Our first meeting with this product manager happened at the company facilities along with other internal employees: the sales manager, one of the two CEOs and him. We introduced the two mentioned activities (*"the stakeholder chess"* and *"the competitor landscape")* to soften the facilitation as much as possible and to observe their own discussions. Even though they work together, disagreements on how they perceive their company and their competitors were inevitable, which was very rich data for us. This long meeting led us to decide on the two most relevant export markets to visit, in this case: Germany and the UK. To create ownership of the project, the product manager was encouraged to join us. In total, four people traveled to both countries: two researchers, the consultant and the company manager. Although aware of our approach, during the first couple of visits, the two non-researchers distanced themselves and watched what we did from a detached (and somewhat skeptical) point of view. Our work progressively gained a certain trust and interest with them, which gave us room to bring hidden mistrust conflicts to the foreground by inviting the company manager to take our role and facilitate the activities on his own. This invitation came when he posed a critique about our way of conducting the fieldwork and, with some hesitation, he took the opportunity to run the activities. At this point, we believed that the manager's deep involvement in the facilitation of the workshops and his influence on the agenda and the methods warranted us calling this work para-ethnographic.

Although it is difficult to know, and argue for, the impact of our involvement after our research was formally concluded, we did experience some indications of these effects. An example can be drawn from the collaboration with the producer of cardboard compressors. Being responsible for the one of the four phases of each cycle of the SMART project, we came to formally end our collaboration with this specific company by the end of August 2014. By then, the goal of the last meeting with them was to share research findings to empower the next external partners and for the internal employees to take ownership of our work. Besides focusing on the content produced in our study, we also left them with a few tangible toolsets from the activities that we had used in our fieldwork together. We had no control of what would happen with the materials, and we did not really expect much of an engagement with the materials by them independently. However, in June 2015 we had the opportunity to meet again with the company manager who spoke to a broader audience of researchers and practitioners about the impact of our research in his organization. On this occasion, he emphasized the company's engagement with some of the materials and the

value of this engagement. He also suggested that the use of the tools might be understood as a seed for organizational change.

FRAMING RELATIONS AND TOOLS TO SUPPORT PARA-ETHNOGRAPHIC PRAXIS

From our experience as designers involving an ethnographic approach in our work practices, we have come to understand that the identity of ethnographers in design is shifting away from individual expertise and towards the role of a facilitator who empowers a collaborative process among multidisciplinary professionals. Although the role of ethnographers in design as "bridge builders" is not new to the literature, insights about how to deal with emerging real-life challenges are rather imprecise and still hard to grasp. In our work, we address these challenges from the perspective of relationships and support of knowledge production.

Accepting and inviting co-producers of ethnographic knowledge

Although the emerging collaborative processes might already seem clear for generating ethnographic knowledge, what it actually means for the role of ethnographers is still ambiguous. We are not encouraging professionals to disregard the importance of formal ethnographic training, but findings from our research suggest that collaborative practices where some of the responsibility (of production/preparation of fieldwork agendas, methods and materials) is given away are increasingly provoking ethnographers to accept that professionals from other domains can benefit from conducting ethnographic fieldwork. This could include work such as interviews, participants observation and conducting workshops without the formal training that was once required for ethnographers to perform their profession. Accepting this call for collaborative ethnographic processes is guiding ethnographers to not only prompt other professionals to play a role in field activities, but to also invite their genuine engagement with the research that will lead to a synergetic and multidisciplinary work practice. The challenge for ethnographers is to not just allow this shift to happen without a defensive attitude, but to also develop an ability to prompt others in accepting the offer.

From our experience with industrial companies and their customer organizations, we argue that this exchange of roles is increasing the spectrum of skills and the impact of ethnographers in business contexts. In our work with the "SMART project", we have deliberately encouraged one of the company managers to take an active research role in conducting fieldwork. The shift gradually moved him from being an informant in our initial meeting, to a role as an observer/partner in the field activities together with us. This transition, which happened over a couple of months and several encounters, led us to inviting him to take an active research role in running ethnographic activities with customers of his own company. In doing so, the feeling of being "reduced" to an observer role questioned the value of our own work. By "giving up" the driver role of our own research we put ourselves in a secondary position that seemed to have much less at stake and thus, gave us an impression that we were not important for the project. However, the later reflections on these episodes lead us to recognize our new role as "facilitators" and its impact to the project was very strong. We came to understand that the exchange of roles did not diminish our work; instead it challenged the company manager's perspectives of the

work of an ethnographer. It gave him the chance to take ownership of the research findings across the organization, while becoming more aware of the struggles and advantages of ethnographic praxis for his own work as a product manager.

Paradoxically, while we celebrate the empowerment of managers as "para-ethnographers" we would also like to attend the discussion that we can be seen as para-ethnographers ourselves. As previously mentioned, we (the ones who directly ran the "SMART project") are formally trained designers and engineers who have been taking the role of ethnographers in different research occasions. As individuals, we share professional and academic experiences with anthropologists, but we do not hold a formal background in anthropology. This could point to a practice of ethnographically inspired design researchers training "para-ethnographers," which already constitutes a motivation for our interest and ability in helping to frame para-ethnographic praxis and other forms of multidisciplinary collaborations, which is actually happening in the professional world.

Empowering para-ethnography with tangible tools

In this paper we have argued for designing tangible tools that can challenge informants' perspectives in fieldwork. We have also pointed out three forms in which theses tools can impact relations among the participants involved in research: when the tools are used by the researchers in doing fieldwork, when the tools are used to encourage "para-ethnographers" in facilitating ethnographic activities and when the tools are used by research partners in their work practice after the research is formally over. Here, we want to emphasize how the tangible tools can empower non-ethnographers in taking active roles.

Unlike prior claims, indicating that tangible tools can facilitate the collaboration between different stakeholders, in this research we have come to understand their impact on *both* the facilitators and the "participants". We do not see the role of these tools in competition or replacement of the researchers' role in doing ethnographic fieldwork. Instead, our work suggests that a designed set of tangible tools may help professionals without a formal anthropological background take more active roles in ethnographic research. We argue that after an initial discomfort, the tangibility of the tools helps to keep the informants busy with particular tasks while it becomes easier for the facilitator to control the flow of actions and dialogues. While the structure of the activity, shaped by the tools, may lessen the pressure on the facilitator to guide the conversation, the openness of the materials may lead to improvised and unexpected outcomes. Thus, the tools might be used as a concrete framework to offer confidence for non-ethnographers to step into the foreground and thereby help the ethnographers to more easily identify opportunities and make an invitation. In that sense, it can also soften the feeling of the ethnographer as being "reduced" to an observer, as it becomes clear that important background work was made in designing the tools that can work in a particular setting. In essence, what we are arguing here is for the use of tangible tools in encouraging informants to take facilitator roles in para-ethnographic praxis.

CONCLUSIONS & RECOMMENDATIONS

This research was undertaken to design tangible tools, which deliberately were involved in field studies investigating the use of products developed by various Danish manufacturing

companies. The tools were, in an on-going manner, evaluated from one field encounter to another and the company managers even took responsibility for facilitating some of the workshops. The study set out to determine if the use of tangible tools could enable or facilitate para-ethnographic explorations and the results of this investigation shows that there is an interesting relation between these two approaches for collecting ethnographic field materials. Our main findings suggest that, in general, tangible tools help support the facilitator and enable the participants to easily relate to the research agenda, while having an impact on the direction of dialogues taking place.

The findings of this research provide insights for researchers considering entrusting other professionals to do their work and support the idea of inviting inexperienced industrial managers to take the lead in conducting field studies. It helps them acknowledge the professional practice of ethnographers, as well as being challenged in arguing for their design decisions when developing products they claim are what the market needs. These findings have significant implications for the understanding of the role ethnographers undertake in the industry, as well as for how managers can get first-hand experiences of the use of their products on the market, and thus challenge their current perceptions of the end-use. The current findings thereby add to a growing body of literature on para-ethnographic operations and the advantages as well as drawbacks of this kind of research approach in industrial contexts. The present study confirms previous research findings and contributes additional evidence suggesting that anthropologists and ethnographers can benefit from taking the responsibility for designing the frameworks of field studies (tangible tools in this case). However, it also requires the ethnographers to take a step back and allow non-ethnographers to be challenged in doing ethnographic work, thus allowing them to acknowledge the valuable insights emerging from it.

Despite its exploratory nature, this study offers some insight into how tangible tools can support para-ethnographic work in industrial settings and how this combination can challenge company managers' perceptions of the use of their products on the market to help them better meet the expectations of the end-users, both in respect to price and functionality. The research has allowed for the emergence of a range of new questions in need of further investigations and thereby invites future explorations that assess the impact of company employees taking a more active role in the execution of field studies, rather than involving them as informants only. The challenge now is to expand the exploration to other real-life contexts that converge business agendas and ethnographic research, in order to identify patterns that can lead to new concrete suggestions for continuing framing para-ethnographic and other multidisciplinary praxis.

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EPIC people work to ensure that innovation, strategies, processes and products address business opportunities that are anchored in what matters to people in their everyday lives. We draw on tools and resources from the social sciences and humanities as well as Design Thinking, Agile, Lean Start-up and other approaches to realize value for corporations from understanding people and their practices.

EPIC brings practitioners together as a community—at conferences and year-round on epicpeople.org—to create knowledge, share expertise, and expand opportunities. We are constantly learning and improving the ways that we achieve innovation and inform business strategy in a constantly changing world.

The annual EPIC conference brings together a dynamic community of practitioners and scholars concerned with how ethnographic thinking, methods and practices are used to transform design, business and innovation contexts. Attendees come from technology corporations, product and service companies, a range of consultancies, universities and design schools, government and NGOs, and research institutes. Submissions go through a double blind-peer review process and sessions are tightly curated. Final proceedings are published on epicpeople.org/intelligences with full-text search, as well as by Wiley Blackwell under ISSN 1559-8918.

Join us!

EPIC people learn from colleagues far and wide, at our workplace and elsewhere. We debate and push each other to improve, to experiment and to make change happen. There has never been a more important time for practicing ethnographers of all sorts to continue to have routine access to one another.

Your membership supports the first professional organization committed to the interests of anyone who seeks to advance the value of ethnography in business, research and nonprofit settings. Over the last year, memberships have supported crucial new resources to advance the professional interests of our community, including critical content, a job board and a business directory. EPIC is a 501(c)(3) incorporated in the state of Oregon.

epicpeople.org/membership

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