# Thinking and Doing Ethnography in Service Design

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**Abstract**: One of the core issues for service design is to put users in the centre of design activities. Service designers use various empathic research methods, often loosely referred to as being ethnographic methods. Some of these methods should not be viewed as ethnography, whereas some should. Some of the rigour of academic ethnographic methods has been lost in the appropriation of ethnography. Practitioners often state that the requirements of rigour of the academic methods cannot be used in practice. In this paper we show that it is possible to do good and rigorous ethnographic research in design through two case studies. This is achieved without sacrificing applicability, and without radically diverging from the ideals of academic ethnography.

Key words: Ethnography, Service Design, appropriation, empathy, case study

# 1. Introduction

Service design is a young discipline, which has emerged over the last 15 years. One of the core issues for the field is to put users in centre for the design activities. To be able to this, service designers use various empathic research methods which fall under the general umbrella of ethnographic methods.

However, the industrial constraints under which service designers work, require various appropriations of ethnography. This in turn leads to frictions between practice and the ideal rigour in the design research. We identify a number of these frictions, and provide two case studies to highlight how these frictions can be handled to keep the rigour in the design research. We do this in the light of ethnography's journey from its roots in anthropology to its current use in service design.

#### 2. Background

Ethnography as a method originates from the field of anthropology [1]. As anthropology as a field evolved, it moved from the initial use of second hand reports from missionaries and other early travellers, to an emphasis on first hand data collection [12]. Among the first ones to do first-hand studies of other people were Morgan and Boas in the mid 1850s, who both did what can be called *urgent anthropology*, which aimed at documenting (native American) cultures before they disappeared. Around 1900 the earliest ethnographic endeavours were conducted, in which the researchers went to live with their informants – the 1898 Torres Strait expedition is often mentioned as the first true field work [12].

The next major step forward in the evolution of ethnography was taken by Bronislaw Malinowski, with the publication of "Argonauts of the Western Pacific" in 1922 [14]. He conducted field work for almost two years (over a span of three years) in the Trobriand Islands. Malinowski's description of his methodology became the benchmark which other ethnographic endeavours were measured against within anthropology:

- Living with the studied objects to be able to study all aspects of life for an extended period of time.
- Being able to speak the local language.
- Participant observation: Do what the studied objects do as well to the best of your ability, whilst observing them. If they are out fishing, you should also fish and not only sit in the boat and watch.

As ethnography in the form of participant observation became more and more developed, the methodology received more and more interest from other academic fields. Today the method is used within most, if not all, social sciences. Sociologists of the Chicago School were most influential in introducing ethnography as a method 'closer to home' in the USA, albeit with marginalised subcultures of tramps and prostitutes, and not yet within their own middle-class cultures [3]. Computer supported collaborative work and participatory design consequently introduced ethnography into Human Computer Interaction (HCI) and systems design [3], when the research interest moved from cognitive functions to the social context of use [7]. An example of early use of ethnographic studies within systems design is the work which Suchman performed at Xerox [20].

Ethnographic research has spread in many design disciplines since. For instance in inclusive design, user centered design, interaction design and more recently service design. What all these design disciplines share is a strong focus on the *experience* of people in their own context during all stages of the design process [8]. The ethnographic approach as first trialled by Malinowski fits particularly well with this emphasis.

By being involved already from the first design iterations, or even before, ethnographic approaches can be applied during most stages of the design process, from exploration of the context of future users to testing of experience prototypes in situ. This lengthens the time span a design researcher can be involved in the design process. A paper by Hughes et al [9] reported on a study in which they, during a time period of 18 months performed ethnographic studies, analyzed the data and constructed prototypes in a series of iterations. When reporting on their studies they concluded that "although there is always more to learn, the payoffs for design, at least in this case, came relatively quickly in comparison with social research uses of ethnography" [9, p. 432]. This was followed by a number of papers on ethnography published around the turn of the millennium, which were quite similar in that they tried to introduce ways of adapting traditional ethnography to the constraints and needs of the design field. A typical title from the era is "Rapid Ethnography: Time Deepening Strategies for HCI Field Research" [15].

At the same time designers using ethnographic research methods in design have experienced a strong need to appropriate ethnography to the situations and circumstances they work in. We argue that these appropriations lead to frictions for achieving rigour in ethnography for design. These frictions are to a large extent the same in various design disciplines, however the solutions to them vary. These frictions are also opportunities because

they force design researchers to reflect on their practices and make considered changes to established techniques and approaches.

These frictions exist at various levels; sometimes on a very fundamental level as Dourish [3] points out when he says that the purpose of ethnography in design should not be seen as delivering "implications for design" but instead as playing a role in "shaping research (or corporate) strategy". A typical example of cases where ethnography is used to shape strategy is the work of Nippert-Eng [17] and Van Dijk et al [4]. In particular, service design offers opportunities to do so, with its emphasis on customer journeys that propagate a holistic approach to understanding people's experiences with services.

In light of this, we regard it important to make efforts in reaching the highest possible quality in ethnographic research over and over again. Given the frictions and differences in goals with ethnographic research, rigour is a key issue to achieve that. To be able to make ethnography relevant for service design, tools and techniques need to rely on the underlying and inherited anthropological ideals.

#### **3.** Using ethnography in service design

In recent service design literature references to ethnographic methods are common [11, 16, 18, 19]. So is the use of different and innovative techniques that adapt ethnographic methods to the prerequisites of service design practice. The use of ethnographic methods face similar problems as in other design disciplines, but the solutions on how to solve them vary from discipline to discipline. In that sense service design is appropriating ethnography in its own way. While viewing these appropriated methods, from a rigorous ethnographic standpoint, frictions can be identified.

Service design aims to make empathic connections with future users of a service, and tries to step into their shoes as a starting point for speculation about new service concepts. Van Dijk et al [4] for instance offer an "Open Innovation" case study in service design that illustrates this with implications for corporate strategy more so than design as such. In the documentation from the Design for Services-project [11], Steve New refers to one raison d'être for using ethnographic methods; to short-circuit technocentric business development, and instead use customer-orientation for transformational purposes. In the same report methods referred to as being used by service designers in the development project were e.g. cultural probes. Voss and Zomerdijk in [11] state that "As well as traditional market research techniques, [the studied organizations] used "empathic research" to understand customers at an emotional level, trend watching and learning from companies in different industries." The focus on empathic research can also be seen in the work from other sources [21, 22]. Parker & Heapy [18, p. 14] highlight one aspect of these empathic methods. They write that engaging people needs to happen through the people at the point of delivery and through conversation and dialogue. Parker & Heapy [18] further state a need for qualitative studies to complement raw data, and to be able to describe alternative experiences and customers with great vividness. They describe how service design can help doing this: "Rather than sucking data in, [service designers] are experimenting with tools and techniques that take them to the points at which people actually experience services." [18, p. 24]. In a recent article in Touchpoint [13] this view is confirmed, and the importance of striking a balance between distanced data and contextual research is emphasized.

To acquire a current account of application of ethnographic methods in service design practice we turn to a data material collected in a workshop on ethnographic methods in service design at the international service design conference in Amsterdam 2008 [5]. As a preparation for this workshop all participants in the group were asked to bring a description of a method they use to collect user insights. These were presented to the group and were used as a way of creating a common ground for discussions, and as a way of sharing experiences. Some of the methods mentioned were; persona, participant observation, diary studies, photo observation, games/plays, design documentaries, directed storytelling [5].

Apart from the fact that the methods range from verbal to visual, as well as from observation to involvement, they exemplify what service designers mean when they talk about ethnographic methods. The reoccurring themes of what the participants in the workshop mean when talking of ethnographic methods were;

- Ethnography requires of a designer to be in the field of study, doing e.g. observations in real world contexts. Or that the data collected comes from a firsthand source in the field of study, thus being contextualized and situated, such as material collected through design probes.
- Ethnography provides a rich data material, such as that documented in diaries, observational protocols, video recordings, personas etc.
- Ethnography requires elaborate tools for documentation, such as video, audio, probes, etc.
- Ethnography provides opportunities to involve informants in the research process, through games, plays, probes and card-sorting.

We have identified 3 areas where non-trivial appropriation of ethnographic methods have and may occur. In these areas there are frictions between practical applicability and methodological rigour. The first two areas relate to the use of ethnography in Service Design processes, and the third relates to communication of service design concepts.

- 1. Appropriating ethnography to use methods that help to empathize with the future users of the service. This is done e.g. by bringing people from the team into the field, using story-telling, defining personas, etc.
- 2. Appropriating ethnography to inspire idea generation. This is done by collecting rich data material and not cleaning out ambiguity or reducing abundance, involving and engaging users, etc.
- 3. Appropriating ethnography to help provide evidence for the concepts that have been developed. This is done by presenting possible service performance futures often composed of documentation from initial field research to different stakeholders, by engaging stakeholders, etc.

Here we will focus on the first point and exemplify through experiences from service design projects. In two case-studies we explore different frictions that arise when aiming for empathy using appropriated ethnographic methods. These appropriations are then discussed in relation to rigour.

## 4. Case studies

The two case-studies we present here have very different approaches to how ethnography can be performed, but both take a strong participatory perspective and approach.

#### 4.1 Walking Quiz: A sociable user research tool

As modern Sweden evolved the notion of 'Folkhemmet'<sup>1</sup> (en. *The people's home*) was important. The aim of 'Folkhemmet' was to create a nation which was like a good home. As a part of the work in building this state, it was seen as crucial that everyone could have a good home of their own. During the 1940's and 50's, new building blocks were built all over Sweden. These areas are often in attractive areas, close to the city centres but face several problems today, with an ageing population (many of whom have lived in the neighbourhoods since they were built) and worn-down buildings being two common ones. In a project in a typical 50's-neighbourhood aimed at improving the living circumstances for the elderly, we encountered the common problem of having limited time at our hands, and problems in finding participants. This posed a friction for us as we had to appropriate the ethnographic approach to be able to create empathy for the future design work.

We got in contact with a social club for elderly living in the area we studied, which organized weekly events. One of these activities was a Walking Quiz, which usually draws a crowd of about 30-40 participants. The Walking Quiz is a typical Swedish activity, often held in connection to club activities and social gatherings. The goal is to answer a number of questions (commonly twelve) which are spread out along a set path which the participants follow. The questions can be both general (for reoccurring walking quizzes) or on specific topics

(such as someone turning 50 and his/her life). Questions always have three alternatives from which the contestant can choose. Contestants usually move in smaller groups and try to answer the questions either individually or after discussing them with others. Answers are always given individually, as there is a tie-breaking question at the end, usually of a guessing type such as the number of pebbles in a jar. The contestant with the most correct answers (and if there are several with the same amount, closest to the answer of the tiebreaker) wins a small symbolic prize.



Figure 1 - Informants answering a question during the Walking Quiz

The team, consisting of three designers, got permission to take part in one quiz, and developed a method to make the most of the situation. The Walking Quiz was used as a quantitative survey on attitudes surrounding living in the neighbourhood. In total, six questions were asked during the Walking Quiz. These questions were based on information obtained through preliminary interviews. The research questions were placed as extra questions adjacent to every second regular question of the Walking Quiz. The design team's questions and answer sheet were printed on a different paper colour than the regular questions. Examples of our questions are "Do you feel safe enough in the neighbourhood?" and "How often do you get help in your home by a relative?".

To gather qualitative data as well, the design team took on various roles during the Walking Quiz. One designer stayed at the start and finish-point to collect answer sheets and perform follow-up interviews with informants,

<sup>&</sup>lt;sup>1</sup> See <u>http://en.wikipedia.org/wiki/Folkhemmet</u> for a short introduction to the notion of Folkhemmet.

whereas the two other designers joined a group of informants each while they were walking around the neighbourhood and answering the questions. From the informants' perspectives, the process was that they did the Walking Quiz and then were interviewed as they returned their answer sheets.

The answer sheets provided the design team with data on how a group of 29 elderly perceived the situation in the neighbourhood. For example we learned that 10 informants always felt safe in the neighbourhood, and that 2 did not feel safe whereas 17 answered that it depended on the situation. The follow-up interviews and the lively informal discussions during the Walking Quiz provided the design team with information on in which types of situations the elderly felt unsafe. As the designers noted, the questions sparked wider discussions on the topics they touched on in a way which provided many insights for the design work. These insights often extended beyond the questions asked in the questionnaire and provided background information of the development of the neighbourhood throughout the years, in the eyes of the inhabitants.

The work with the Walking Quiz provided a way of approaching a larger number of informants in a short time than would have been feasible otherwise in a situated context, and also provided a very high response rate (29 out of 38 elderly present agreed to answer the extra questions). As it provided both quantitative data and qualitative data it gave the design team concrete numbers to point to when discussing with non-designers whilst still providing the empathy which is so important to designers. The information gathered throughout the Walking Quiz, raised several questions which were later addressed in the design concepts developed. One focus which emerged was that of the once beautiful park in the neighbourhood now being run down, and a source of anxiety rather than joy. The main design suggestion focused on revitalising the park, through various efforts such as the building of a pavilion and having an art exhibition in it (cf [2]).

#### 4.2 Co-creative workshops as participatory ethnography

Our second case-study is located in the field of architecture. It takes a view on architecture as part of a service to a community. We were confronted with the challenge to do ethnography in built environments that have not been built yet. How could we empathise with the future users of what was now only a brown field? We worked for Heartlands, a regeneration project built on a community-led vision to transform Cornwall's most derelict urban area and the oldest UK tin mine into an inspirational cultural landscape. The project aims to celebrate local Cornish traditions of innovation and creativity and help the area of Pool to be a great place to live, work and play. To achieve this community-led vision, Heartlands received £22.3 million in funding from the Big Lottery Fund's Living Landmarks programme in November 2007. Characteristics of the design project are the aims of local citizens and organisations to realize a vital and dynamic set of environments and services for regional communities and visitors. The ultimate success of Heartlands depends on its popularity and its use, so it must really offer what local people as well as visitors appreciate, need and dream of.

The team included design researchers with mixed backgrounds in social research, user-centred design and architecture, and worked closely with the management team of the local council. STBY ('Standby'), in collaboration with Yanki Lee of the Helen Hamlyn Centre, organized 12 different activities, with different participants at different times during the design process. One of the activities is discussed in detail below. All 12 were focused on the future use of services, buildings and environments of Heartlands and deliberately avoided a

focus on the more formal aspects of the designs. Even though we organized co-creative workshops, we did not design buildings or parks with local citizens. Instead, we explored, designed and evaluated the *use* of these places with them and the design teams. The design of formal aspects was left to the experts: the architectural design teams. Local citizens are experts in a different area: the use of their current environment and all types of local services. We explored these with them, to inform and inspire the architects.

In our ethnographic research, we generated ideas and scenarios for future uses of architectural spaces that had not been built yet. To do so, we created fictional situations, grounded in actual practices and performed by actual stakeholders in those situations. Consequently, we applied ethnographic techniques of observation and participation in these situations of the future. A good example of this is the co-creative workshop we organised on the artists' spaces at Heartlands. These artists had been interviewed in their own studio some weeks before, which resulted in a solid understanding of their use of space. This had already been communicated to the architects via video on a blog<sup>2</sup>. We asked the architects to stake out the spaces they had designed for artists on actual the brown field site. We also invited four artists to bring some materials, tools and work, and take possession of an imagined studio for an afternoon (see figure 2). This allowed them to take ownership of these

spaces before they were actually built, and to speculate about the fit with their usual work practices. Each artist was teamed up with an architect who brought drawings and sketches of the space. This was the starting point for the workshop. Then we asked four different groups of future visitors of Heartlands (students, art lovers, curators and people with disabilities) to visit the make-shift studios and have conversations with the artists about their work, and how they felt about working at Heartlands. This resulted in 16 scenarios of how artists and visitors

would like to (not) meet and communicate with each other.



Figure 2 - Furniture maker talks to guests in his imagined studio at the Heartlands brownfield site

The appropriation of the ethnographic situation by fictionalizing it was forced by the fact that we had to create the situations we wanted to study based on existing elements such as plans of the architects and practices of the artists and visitors. Our response to the friction did not disconnect us from existing situations. We put every possible effort to ground these fictional situations in actual behaviour and the actual environment where Heartlands is going to be built. For instance, we visited and filmed artists in their studios, using ethnographic techniques, prior to asking them to set up their makeshift studio in the brown field. Also, we invited local people who knew the area well and certainly will be visitors of Heartlands in the future. Both groups naturally took ownership of the space that we had staked out with the architects: the artists because they had brought their own stuff and the visitors because it was in their local town, a site across the street from their college, and so on. This resulted in a shared ownership of the site and co-created future of Heartlands by the artists, the visitors and the architects. Previously, the architects had perhaps felt practically sole ownership because they had been working

<sup>&</sup>lt;sup>2</sup> See <u>http://bas.blogs.com/artatheartlands/</u>

on the terrain by themselves, showing drawings at occasional public consultations only. Our fictional ethnography, or ethno-fiction [6], enabled the architects to empathize with the future users of the spaces they were designing. Iacucci et al [10] similarly explored this issue through design games. Empathizing is essentially to understand the experiences and perspectives of others, which is very helpful if you have to create something for these others, such as buildings that will provide services to a community. The friction caused by the need to study and explore something that did not exist yet as a whole resulted in empathy based on co-ownership and co-creation.

#### 5. Discussion

With the help of material from a workshop on ethnography in service design and literature we described the current use of ethnography in service design. We then identified three possible ways in which ethnography is appropriated to the circumstances and needs of service design. We then focused on one of these appropriations - how to keep the methodological rigour whilst reaching the needed empathy for the design work.

We investigated the issue by providing two case studies. For each case study we introduced a friction which forced us to appropriate ethnography to different constraints. The frictions in the cases were different in their nature, but both correspond to issues which are often encountered by service designers. The first case dealt with limited time and access to informants, whereas the second case dealt with ethnography for a not yet existing concept. Due the different nature of our case studies, we believe that the approach taken to methodological rigour can be extended to ethnography for service design as a whole.

For the case with the Walking Quiz, the design team needed to appropriate the ethnographic research to fit the friction of a limited time as well as limited access to informants. The Walking Quiz was performed in a familiar context and situation for the informants, which answers up to the criterion that ethnographic studies should be made in field. The researchers grounded their questions on earlier visits and interviews with key people in the neighbourhood. During the quiz two kinds of data was collected, the quantitative answers to the quiz questions, and the qualitative, collected through the stories told and discussions held. The qualitative data was complemented by the debrief interviews held when the informants returned their quiz cards. The preliminary interviews and the division of work tasks during the Walking Quiz were all ways of maintain the highest possible rigour in the work, whilst creating empathy. One of the factors that made this work was the thematic issues covered during the Walking Quiz. The repeated procedure during the relatively short time-span, can give similar results as being in the field for a longer period of time.

For the architecture project, we had two ways of observing and discussing the practices of the artists: In their own workshops and studios as well as on the brown field site between their own stuff. The first instance was recorded on video and related via a blog to the architects. This followed more traditional ethnographic practice where video material is selected and organised according to topic (here for instance practical topics such as 'floors' and 'lighting' but also 'visitors' – all particularly important to both architects and artists). On the brown field, the architects took part in the workshop and could experience first-hand how artists engaged with visitors. Rigour was served in two ways: firstly, the brown field situation was firmly rooted in existing practices of the

artists in their own studios, and secondly, by documenting both situations on the same blog it allowed researchers and architects to compare practices of the artists in their own studio with behaviour on the brown field. Despite being fictional, the situations in the co-creative workshop were set up in a systematic way that allowed researchers and architects to trace back practices of the artists on the brown field to behaviour in their studios and workshops.

We have presented two productive frictions between traditional ethnography and ethnographic research in service design, and shown ethnography has been appropriated to fit our cases in a way which provides rigour as well as creates empathy. A comparison to Malinowski's ideals shows that rigour can be kept within ethnography for service design through learning "to speak the local language", by preparing the fieldwork properly. In both cases presented herein the ethnographic endeavours were grounded by investigations with stakeholders in advance. Also Malinowski's point of participation needs translation, but its essence can be kept. We understand 'participation' as our efforts to participate in the experience of our participants, in particular their 'customer journeys.' This focus on experience of course relates strongly to the emphasis we put on empathy in our research for service design. We aim to step into the shoes of the participants we work with. In contrast, the third point brought forward by Malinowski – studying all aspects of life – needs to be appropriated more strongly when performing ethnography for service design. As service designers mostly study certain parts of life, to which the service at hand is aimed, they need to find ways to focus their ethnographic endeavours on these parts.

#### Acknowledgments

We wish to acknowledge the participants of the Amsterdam workshop for sharing their views on ethnographic research. We also want to acknowledge the VINNOVA-project SERV; Service Design, innovation involvement, ref no 2007-03444, and STBY for providing the funds for doing the research presented herein.

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