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## **Title**

Mobile ethnography as an emerging research method

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**Title**

Mobile ethnography as an emerging research method

**Summary (maximum of 150 words)**

This developmental paper presents mobile ethnography as an emerging research method in management studies. The study aims to explore the current use of mobile ethnography within separate research fields of management in order to develop a model of application of mobile ethnography. Initial findings suggest that mobile ethnography is an emerging area of research combining developments in retail service experience and visitor service experience towards a more frequent use of mobile ethnography as a research method in management. A case study shows mobile ethnography as applied to examine the service quality experience at the National Museum of Australia in Canberra. Students collected data with an app downloaded onto their private smart phones.

**Key Words**

mobile ethnography, research methods, consumer behaviour, service experience

**Word count (excluding tables and references)**

1,515

## **Introduction**

Mobile ethnography research in combination with smartphone use and other internet-based technology is becoming more prevalent, driven by the increased usage of mobile devices and especially smartphones by consumers. Hence, researchers in the areas of health (Connelly et al. 2006; Logan et al. 2007; Rodgers et al. 2005), retail service experience (Kourouthanassis, Giaglis & Vrechopoulos 2007) and visitor service experience (Frischhut, Stickdorn & Zehrer 2012; Muskat et al. 2013; Stickdorn & Zehrer 2010). Since the ubiquity in availability of both the hardware part smartphone and the application part to be downloaded from either a commercial website like the App Store or to be shared from phone to phone by Bluetooth or similar devices, the technicalities of setting up a group of participants for a data collecting step have become minute.

As mobile phones today have a central role in many people's lives (Mattila 2011), they are increasingly used for health management applications; but are also seen as means to enable better contacts and nurture relationships (Quercia et al. 2010). Smartphone users' behaviour changes and so does technology. Longer battery life and wider access to the Internet on ever faster networks accelerate and enhance accessibility of mobile phones (Connelly et al. 2006; Diaz et al. 2008). From early steps in 2005 where we heard within the research area of health about using mobile phones to promote smoking cessation using text messaging (Rodgers et al. 2005) and reminding patients on taking medication (Connelly et al. 2006; Logan et al. 2007), we seem to have come a long way to current trends in education with having students participating in lectures through Clicker and clicker-like devices and give immediate feedback to the presenter (Trees et al. 2011).

Within marketing and consumer research the availability of 'pervasive information systems' (Birnbaum 1997) in a 'post-desktop' era (Jonsson 2002) has seen the emergence of devices attached to supermarket trolleys and receiving the shoppers' feedback on their shopping experience within the store (Kourouthanassis, Giaglis & Vrechopoulos 2007). Only recently we see the next step towards exploring service experience through museum visitors setting touchpoints with a smartphone application and allowing the researcher to track the visitors' path through GPS data combined with their feedback by text messaging and photos and videos taken (Muskat et al. 2013; Stickdorn & Zehrer 2010).

This study synthesises the literature and reviews existing research on the relevance and usage of mobile ethnography. A case study method is used and the analysis highlights the easy-to-use approach. The research method uses a smart phone app for data gathering, has a non-expert group used within field research needing only initial guidance upfront, and uses a back-end software of the mobile application supporting the research team with user-friendly analysis tools. The aim of this study is to present initial findings suggesting that mobile ethnography is an emerging area in management studies. As a developmental paper it supports the argument that future studies could incorporate methods of mobile ethnography as a research method in management.

## Literature review

Ethnography has its origin in anthropology, and explores cultural phenomena. Ethnographical researchers have developed their distinct set of research methods within qualitative research, including diary studies, observational protocols, video recordings, photo observation, cultural probes, and directed storytelling (Arnould & Wallendorf 1994; Elliot & Jankel-Elliot 2003; Goulding 2005; Segelström et al. 2009).

*Mobile ethnography* with this terminology has been used since the second half of the 1990s. The term at that time could mean either *ethnography on the move* (Marcus 1995; Newman 1998), but was even then also used for *ethnography with a mobile device* (Axup & Viller 2005). Since then the dichotomy in meaning remained with one side referring back to Watts (2008) as “A ‘mobile ethnography’ [...] by travelling with, and constituting, a moving field site; participating in the relations between things, people and places on-the-move (Watts 2008:712). (See also Büscher & Urry (2009), Jain (2011), Vannini (2010) and Watts & Urry (2008).

Studies utilising mobile devices and, more recently, smartphones have been conducted by Axup and Villers (2005) who explored backpackers sharing information on activities on social networks; Connelly et al. (2008) investigated how mobile applications empower people to monitor their personal health and Stickdorn and Zehrer's (2010) research applied mobile ethnography and service design within the tourism industry.

With the traditional ethnographers using participant observation as their means of research (Marcus 1986) it is with the shift to mobile ethnography that the study target group is handed out smartphones or asked to download an application on their private ones and then have the data collection process done by them. We can argue that mobile ethnography makes it possible to collect direct user information, which is not just recalling experiences and giving feedback to them afterwards, but reporting experiences online at the time of the experience, on the very spot or location of the experience, and in the mental space of the experience itself based on the genuine feelings generated by it (Frischhut, Stickdorn & Zehrer 2012; Stickdorn & Zehrer 2009).

## Case study method

This paper uses a case study (Muskat et al. 2013) in which mobile ethnography explored the visitor experience at the National Museum Australia through a group of students collecting data with an app called *MyServiceFellow* downloaded from the App Store onto the students' private mobile phones.

The measurement of customer experiences in museums, and with it the service quality experience, has been applied in a setting where University of Canberra students were sampling data at the National Museum of Australia, Canberra, in an exploratory and qualitative research approach. The National Museum is the country's social history museum located within the capital Canberra.

A group of students were asked to visit the museum, using the mobile application *MyServiceFellow* as they move through the exhibition areas. *MyServiceFellow* is one of the first prototypes of a mobile ethnography app (Frischhut, Stickdorn & Zehrer 2012; Stickdorn &

Zehrer 2009). The app enables users to capture touchpoints right at the moment of an experience. It allows adding and evaluating touchpoints on a 5-point Likert scale (ranging from +2 to -2) and documenting touchpoints with text, audio, photos or videos, which can be each individually flagged as positive or negative. The data of each user is then uploaded to a web-based analysis software aggregating the users' touchpoint assessments to mean values to identify critical incidents (Muskat et al. 2013).

## **Analysis**

If it is not an academic research team collecting the data there will be necessary instructions to the group of participants upfront on background on the study, on how to use the application and on what participants should look for. But nevertheless, the data collection by the participants now very much resembles the non-supervised process of filling in a questionnaire. With this come advantages like loss of subjectivity in collecting data as was former with the ethnographer's view, but also disadvantages like gathering of irrelevant data by the participant due to the fact that instructions given upfront can almost never cover all uncertainties if and how to collect in specific circumstances.

The participating students embraced the opportunity on the day to take part in the data gathering; also providing an insight into different user behaviour as some would only use the positive-negative touchpoint scale, while others commented on their experience, with some taking photos and some taking videos to underline their service experience.

Very positive results received the service personnel at the museum with students commenting on their support and helpfulness. While the museum restaurant was a polarizing experience with some positive and some negative comments, it was the (lack of) signage that received most negative comments. As the museum's exhibition areas do not follow a straight path but consist of several buildings with different levels, finding a way forward or back towards a sought next exhibition area proved to be difficult.

Some issues to be dealt with during the data gathering process were the lack of GPS connection leading to some students having set touchpoints without commenting; assuming their location within the exhibition hall would be shown when this information was in fact later not available.

## **Conclusion and outlook**

The case study provides important findings for mobile ethnographic applications namely the positive and negative service experience results as uploaded by students, highlighting valuable insights for museum management into visitor experience. In general the app can be used as a means to have mobile ethnography used easily for a non-expert group in collecting data for studies in service quality experience. For researchers the application is then a means to have the users' data uploaded to a web-based back-end software supporting the further analysis.

This current developmental study is now aiming to follow this path further in investigating visitors/guests/users service experience in ways so far not explored. It is hoped that with the current study finalised, it will contribute to knowledge in applying mobile ethnography through use of easily handled technology, using the participants own devices with freely accessible software to download. The playful approach to collecting data combined with highly visual back-end software puts mobile ethnography on the map of the current mobile qualitative research methods.

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