



Meanings of a Blurred Mobile-Home Context for People aged 50plus

Thomas Meneweger¹, Marianna Obrist², Manfred Tscheligi¹

¹Center for Human-Computer Interaction, University of Salzburg, Austria

²School of Engineering and Informatics, University of Sussex, UK

firstname.lastname@sbg.ac.at

m.obrist@sussex.ac.uk

Abstract. Due to an increased mobile lifestyle facilitated through the proliferation of mobile and ubiquitous technology, the meaning of home is changing and loses its particularities. In this paper, we explored how ‘home’ is conceptualized by people aged 50plus, being a fascinating user group when looking at the transition into an area of increased mobility. We conducted in-depth qualitative interviews, demonstrating that people aged 50plus have two distinct viewpoints on home: (1) inside view, understanding home as the spatial inside of their personal living space, and (2) outside view, that extends home beyond the personal living space. We show how these meanings are constructed based on the spatial and social dimensions of home. With this study we aim at providing designers in the mobile application domain a foundation for reflecting on the home context, opening up new opportunities for intuitive applications bridging the domestic and mobile life.

1 Introduction and Motivation

The increased penetration of people’s everyday life by mobile and ubiquitous systems and services contributes to a blurred understanding of what the home is and how the home and the mobile context are interrelated [7], [10]. Mobile applications that promote wellbeing and allow for social connectedness are especially beneficial for people aged above 50 [5]. We believe that our research can serve as a theoretical basis for reflecting and discussing on future designs of intuitive mobile applications for people above 50 within an increasingly mobile era. By revealing the mental models of home for people aged 50plus, we aim at providing theoretical grounding for interaction designers and researchers to explore intuitive interaction concepts for the blurred intersection of the home and the mobile context as an interrelated design space.

Related work explicitly addressing the blurred intersection between the home and mobile context is rather rare. Only a few studies are concerned with the domestic area, which is increasingly interwoven with mobile [6] and ubiquitous technologies [10]. Petersen et al. [7] made a first step towards reaching a richer understanding of a blurred mobile-home context by

investigating peoples practices and technology usage to make them feel homey in other places. They identified different notions of feeling at home in other places. Further research endeavors dealing with the intersection of the home and mobile context are exploring work-home boundaries and how to maintain them (e.g., [2]).

With our work, we want to emphasize the need to explore the basic understanding how people aged 50plus experience a blurred mobile-home context (an extension of home due to increased mobility).

2 The Study Setup

To explore subjective meanings of the home for people aged 50plus, we conducted open-structured qualitative interviews in a Western European country and applied the documentary method [1] to analyze the qualitative data.

Our main research question was: *What do people aged above 50 years mean when talking about the home?* We set up the interview guideline based in the idea of the narrative interview developed by Schütze [8]. The interviews were conducted with six female and two male participants. The participants were aged between 52 and 67, with a mean age of 60 years. The interviews were audio-recorded and transcribed for further analysis.

3 Findings

3.1 Meanings of Home

A key aspect of the emerged *meanings of the home*, based upon the spontaneous descriptions collected from the participants, is the distinction between the *inside* and *outside views* on the home.

3.1.1 Inside View on the Home

Participants with an *inside view on the home* talk basically about the interior of their house or flat. The door of their house/flat represents the external border of their home. Their descriptions about the home are focusing on what is happening inside their house/flat as a physical space. For example, a participant pointed out that for him/her, the home is “*That you can close the door*” (P7).

Within this *inside view* on the home two subtypes were identified. Participant’s expressions subsumed within subtype (a) highlight that home is a

personal area for them (“*Here, my flat, the private sphere*” (P1)). Apart from privacy issues, participants’ perceptions of the home are associated with the home as a refuge from society, a kind of a haven to escape social life and forget about what is happening outside. Within subtype (b) of the *inside view* on the home, participants express a strong emotional attachment to their home. Participants mention things such as comfort, coziness and feeling of security to describe their meaning of the home, e.g., *Where you feel comfortable, it is simply my kingdom, it is my realm, where I live how I like.*” (P5).

3.1.2 Outside View on the Home

People with an *outside view* on the home focused within their descriptions of the home on the surrounding area of their house/flat. They describe mainly what is happening outside their house/flat. Within this type the understanding of the home moves beyond the physical borders of a house or a flat, which the following quote on the description of the home illustrates: “*Well, at first [name of the city anonymized]. Then it means for me to live in the city center*” (P8).

Within the *outside view* on the home two subtypes were identified. Subtype (a) encompasses descriptions of the spatial environment of the house/flat, which focuses on the places surrounding the house/flat (e.g., the village, the city). One participant points out that he only has the feeling to have left his home when “*passing the railway bridge of the city*” (P8). The other way round, this participant has the feeling to come home when coming back to the city over the railway bridge. Subtype (b) within the *outside view* focuses on the social environment of the home. Participants relate to people living nearby their house/flat, such as their neighbors and friends. Participants’ mapped into this subtype have a strong emphasize on the social character of the home and feeling connected with other people, e.g., for “*being together*” (P4).

3.2 Strategies of Extending the Home

Beyond the two main types of *meanings of the home*, we additionally identified two different *strategies of extending the home*. Within the participants’ understanding of the home, the spatial dimension of the home often lacks congruency with the social dimension of the home. This is the case when, for example, family members, friends and relatives are living outside the physical border that participants have previously described as their home. However, these people are still considered as being part of his/her home. We found that participants adjusted their meaning of the home during the interview, according to two strategies on top of the initially emerged meaning

of the home. On the one hand, by “extending” the home spatially to external places, on the other hand, by “taking” people (from places outside the “home”) inside their homes.

3.2.1 Taking People Inside from the Outside

During the interview this strategy was applied by participants who outlined that people, who are initially (e.g., at the beginning of the interview) located outside the space that was prior defined as the home, and then incorporated into the space inside the house/flat. For example, participants that were assigned to this strategy mentioned that specific people like family members (e.g., children living in a distance), friends and relatives are part of their subjective definition of the home. However, only when these people are visiting them in their houses/flats. Some participants mentioned that their house/flat means home to their children who are not living anymore in their parents house/flat (P4, 5 and 6). This is of course what the interviewees think, we do not know if their children experience it in a similar way. This strategy corresponds to the *inside view* on home¹.

3.2.2 Extending the Home to Outside Places

The second strategy of extending the home relates to the extension towards outside places, which even go beyond the *outside view* on the home previously defined. Participants applying this strategy extended their understanding of home to remote places by mentioning, for example, that they feel at home when they are staying with their children or when they are visiting friends and relatives (P3 and 4). Other participants even referred to remote places such as a friend’s house, that this place means home for them (P2 and 8). For example, P8 referred to her office to be home for her as well. This person somehow “disarranges” the typical structure of her home (kitchen, living room, bedroom, etc.), by saying that the office is a living room for her (even more than the “real” living room in her flat). The strategy of *extending the home to outside places* can be identified in the descriptions of the same people fitting into the *outside view* on the home.

¹ For P1 (showing an *inside view*) we couldn’t identify any strategy, because this person didn’t refer to any social dimension of home within his descriptions.

4 Reflections on a Blurred Mobile-Home Context

Our findings indicate that people aged 50plus are impacted by an increased mobile lifestyle. The social dimension of these people's meaning of home is obviously influenced by mobile developments, as the social dimension is in most cases extended beyond the spatial dimension of home. Due to an increased proliferation and penetration of mobile and ubiquitous technologies people can easily get connected with family members (e.g., children) and friends, who are living at a distance. For example, people with an *inside view* driven understanding of home (referring to the physical space inside their house/flat) are regardless their affinity for mobile technologies still affected by mobile developments, as their children and friends might use mobile technologies to frequently stay in contact with them from the outside.

The two main types of *meanings of the home* indicate that the understanding of home can be split into two groups. A rather "traditional" group referring to the home as bound to the physical space of a house or a flat (*inside view*), which has been extensively investigated by "traditional" studies [3], [9]. However, another more "progressive" group referred to an extended understanding of the spatial dimension of the home, beyond the physical space of the house (*outside view*), which received only limited research interest up to now. Petersen et al. [7] and Lyngaard et al. [6] have investigated this blurring between the home and mobile context for a "progressive" and young user group [7].

In contrast to that, previous work focusing on the younger generation, we focused on people aged 50plus. Understanding how this user group experiences and conceptualizes home under the changing circumstances helps us in HCI research to establish a strong foundation for improving the design of applications for the mobile-home context, as it allows a systematic reflection on the transition and associated meanings and experiences. This is similarly valuable as recent research studying the transition from manual to autonomous driving and the changing meaning of a car and driving [4]. Designers will need to carefully study such findings, as they will highly influence the design process of new interfaces and the creation of pleasurable and satisfying experiences.

Our findings indicate that our participants actively constitute the meaning of home, comprising the social elements (i.e., children, relatives, friends) and mentally (but actively) shape them towards a specific spatial arrangement. The revealed *strategies of extending the home* represent two different ways to align the social elements of the home with the spatially dominated concept of the home, and therefore shaping the understanding of the mobile-home context.

Thus, our findings underline that home is a complex concept that is not just simply there and as well influenced by mobile applications. Future research in the blurred mobile-home field as well as interaction designers should strive for exploring the interrelations and dynamics of the social and spatial dimensions of the meanings of home with respect to people's mobility.

5 Conclusion

With the presented insights and reflections we aim to provide a theoretical basis for researchers as well as interaction designers in HCI for future explorations of mobile applications. More specifically, we found different conceptualizations of a blurred mobile-home context for people aged 50plus that might influence how people interact with mobile devices and applications within their everyday environments. How to incorporate these conceptualizations in the design of interactions and visualizations of mobile applications that aim to be intuitive will be both a challenge and promising opportunity for future developments.

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