Using cultural probes for co-creating a digital neighbourhood guide with and for older adults

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Summary

In this paper we reflect on our experiences of using cultural probes for co-creating a digital neighbourhood guide with and for older adults. We will focus on a specific set of probes that relate to the spatial dimension of social inclusion of older citizens with respect to their sense of attachment to their neighbourhood, their sense of security and familiarity in a neighbourhood as well as their sense of identity. Based on our experience in two different districts in the city of Bremen and different groups of older adults we present some first insights into how probes may establish older adults as experts in the design process or increase feelings of limitation and deficiency.

1   Introduction

While new information and communication technologies, in particular mobile applications offer great potential for effective and improved (digital) public services, they do not seem to be the appropriate delivery channel for older citizens as there remains a gap in access to online services between younger and older adults. Part of the reason for a remaining disadvantage of older adults in accessing online services is in the design and delivery of these services.

In our EU-funded project MobileAge, we develop and evaluate a co-creation methodology to address this challenge. By jointly developing digital public services with and for older citizens the aim is to make this services as useful and meaningful as possible. In so doing, we take a situated-practice based approach when defining, designing and implementing services with and for an ageing population. This approach to co-creation is grounded in the everyday life of older adults, their needs as well as available resources. In this paper we are reporting of the field work conducted in one of the co-creation sites: Bremen, Germany.

The focus of the co-creation activities in Bremen is on the socio-spatial aspects of social inclusion: This is a pertinent topic as the relationship and bond with their immediate living environment as well as the capability to move within their neighbourhood confidently become more and more important as people grow older. At the same time, there is an increased risk of loneliness as relatives and friends may pass away. Thus older adults are in need to find places and opportunities for social interaction and civic participation which is strongly related to their confidence of moving freely within their neighbourhood. Dimensions to be considered about

the socio-spatial dimension of social inclusion are older citizens' (1) sense of attachment and social connection: knowing a neighbourhood, (2) their sense of security and familiarity: knowing where to find relevant information and resources and (3) their sense of identity, linked to independence and autonomy: e.g. knowing where organisations and places are located, which services are provided, and how to access them (Wiles et al., 2012).

The field work is divided in two co-creation interventions in two districts in Bremen: Osterholz (May 2016 – January 2017) and Hemelingen (April 2017 – December 2017). In order to explore and learn about the everyday lives of older adults in Osterholz in a structured and reflective way, we developed a set of cultural probes (Boehner, Gaver & Boucher, 2012; Gaver, Dunne & Pacenti, 1999).[1] These included descriptive and exploratory tasks that were based on self-reporting. Our participants kept the cultural probes for 10 days. They collected data on themselves, their lives and their socio-spatial and media use practices. Follow-up interviews were conducted individually to prepare and accompany the co-creation process (Jarke et al., 2017).

2   Case study

Osterholz is characterised by six very diverse neighbourhoods that give the district its multifaceted character. The neighbourhoods are important points of reference for the identity and even moving of many people. These aspects were important to our co-creation process as the focus was on social inclusion and active participation, in particular with respect to the socio-spatial dimension of inclusion.

In May 2016 we began our co-creation process by recruiting 12 older adults living in the district. Their age ranged from 55 to 80, their use of digital media ranged from a non-user to very proficient users; two participants were still working. As one of the first activities, we invited our participants to document (and self-report on) their movement and their primary social networks in the district by using cultural probes. The service idea that was developed, refined and implemented throughout the co-creation process was a digital, interactive neighbourhood guide (currently in field test at www.bremen.de/osterholz/senioren).

3   Cultural Probes in Bremen Osterholz

In the following we will provide a brief overview of the probes that we developed and discuss some of the challenges we have encountered in detail for one of the probes: a neighbourhood map. In total 11 cultural probes bags were returned. The bags contained a diary for the documentation of everyday practices as well as biographical and personal information, postcards with reflection tasks concerning technology, the past and the future (of the district), a disposable camera and a map of the district with dots to mark places of relevance. Following

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[1] Part of these probes were inspired by the ParTec project (Maaß et al., 2016). We are grateful to Susanne Maaß and her team for their generous support and open culture of sharing their experiences and material.

the return, we conducted individual interviews with each of the participants. These interviews lasted about 90 minutes. In a subsequent workshop the participants jointly reflected on the activity and their experience. The aim was to define some key characteristics that would serve to develop personas (representations of fictitious future users). In our co-creation process personas allowed to investigate together with the older adults the needs, problems, interests, skills, and expectations of wider user groups and to make it easier for them to talk about sensitive issues (e.g. financial constraints). In this workshop we discussed two sets of cultural probes in order to (1) jointly reflect on cultural probes activity and experience and to (2) define some key characteristics for the personas.

One task concerned a neighbourhood map. The main aim of this probe was to understand social inclusion with respect to primary networks and space. Participants were asked to highlight where they live (red dot), where friends & family live (blue dots), where important places for their everyday are (yellow dots). Figure 1 presents the map of participant #1.

What we were interested in learning from this map concerned for example how connected our participants felt to people/places and the spatial dimension of their primary networks (neighbourhood, quarter, district, and clubs). We were also interested in learning which social networks the participants were part of and where they meet.

The maps that were returned differed greatly with respect to the extent of the networks and the mobility patterns. The maps were supplemented with the diaries and a set of 7 maps in which participants documented their routes for a week.
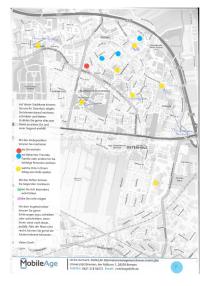

Figure 1: Map as completed by participant #1

When participants compared the individual maps during the workshops they discussed what they believed to be differences that would eventually allow for the development of different personas. Some of the key differences where: biographical (on whether somebody just recently moved to Osterholz), related to retirement/employment, living circumstances (alone vs. partnership vs. caring for partner) related to mobility & health, related to the financial situation and how active people were in terms of charity work and hobbies. All these considerations were noted and informed the development of personas in a subsequent workshop.

Figure 2: Participants discussing their maps

Along those personas we formulated requirements for the service to be developed and discussed use case scenarios. Hence in contrast to traditional software development projects, our personas were based on real life people and co-created with the future users taking into account their specific media- and space-related practices.

The cultural probes (also through the interviews and the workshop) provided an opportunity to establish the older participants as experts of their life course and of experiencing the process of becoming older/ageing. They also allowed them to document and reflect on their everyday practices and practices related to ageing, technology use, and the appropriation of the district when becoming older. The cultural probes sensitised participants about certain aspects of their everyday practices and were hence tremendously helpful in identifying needs and resources. For the researchers they allowed to develop a better and more profound understanding of these practices.

Since the probes affirmed the researchers' sincere interest in the participants' lives, we could demonstrate our appreciation towards the participants with well-designed probes and build trust relationship. Key to the trust-building were also the individual interviews.

However, although most participants appreciated the probes, some did not complete them fully. This was partly due to time constrains, but one male participant also explained that for him this kind of self-documentation was too intimate and he did not like to provide information about his personal life. Furthermore, some of the participants wondered what we wanted to use the personal information for and were therefore unwilling to share them.

4 Cultural Probes in Bremen Hemelingen

A key challenge with the cultural probes is to design them as comprehensive as possible and at the same time not to be too demanding for participants as well as for researchers. For our second phase (co-creation activities in a different district in Bremen), we therefore adapted the initial set of probes. We were also interested in including older adults with different life circumstances. We hence started to work with a core project group of service providers in Hemelingen (the members work for social welfare organisations, the protestant church and as neighbourhood managers). Through these intermediaries we organised, amongst others, a series of focus groups with older adults with mental health problems but also residents in a care home. We hence extended our initial group of older adults to people with reduced mobility and also people who were much older. In the following we report on our experiences with a group of 6 residents of a care home, all aged above 79 years.

In an initial workshop we introduced the project and discussed about the information needs and interests of the group. All, but one of the participants were active users of mobile devices, such as tablets and members of a "tablet group" which meets regularly. During this initial workshop we handed out a cultural probes bag to each of the participants. In a workshop scheduled two weeks later, we agreed to collect them again.

In contrast to the experiences we made in Bremen Osterholz, this group did not appreciate the cultural probes at all. One participant spoke of a "shock bag". We had the opportunity to discuss with the participants about their experience in the workshop (after which they jointly decided not to participate in the project anymore) as well as separately with the director of the residence.

The reasons for the rejection of the probes may be manifold, but we would like to concentrate on two here: (1) the tasks were not appropriate for the participants and (2) by trying to complete the tasks, participants were not established as experts but rather were identifying their own limitations and perceived deficits. The first point relates to the map, which was not well to read. This experience was reported as being frustrating for the participants who subsequently questioned either their own ability to fulfil the task as well as our good intentions in posing such a difficult task in the first place. The second point relates to our focus on movement patterns, socio-spatial networks and knowledge about the district which did not fit well with the participants' abilities and interests: Since many of them had mobility impairments, questions relating to their movement patterns made them even more aware of their limitations. And since most of them had only recently moved to the district (into a residence home) they neither had many social relations nor comprehensive knowledge about the district. Participants justifiably questioned how well we had anticipated and understood their particular situation.

5 Conclusion

In our striving to develop sets of cultural probes that may be used in other co-creation contexts also focussing on space-related issues concerning ageing (e.g. ageing in place), we only slightly adapted the cultural probes. However, we had to realise that in order to develop meaningful and engaging cultural probes, a much more substantial engagement with the specific life circumstances of participants needs to take place. Sadly in one of our cases, the cultural probes did not establish participants of experts of their everyday life and ageing in a neighbourhood, but rather highlighted their increased immobility and age-related deficits, which led to a rejection of the probes.

Acknowledgements

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