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Challenges of building and sustaining living labs for designing services and products

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Abstract. In this paper, we show examples from one of the living labs from the Give & Take project and discuss the observed challenges of establishing and sustaining living labs in a participatory design context. The observations we present are around the mismatch between research language and everyday language, the need for an open-ended conversation for deeper insights and issues around the effort needed for sustaining labs.

1 Introduction

In this position paper, we explore the work involved in establishing and sustaining living labs in participatory design contexts. We introduce the insights from our living lab in Vienna, one out of five living labs from the Give & Take (G&T) project, and reflect upon common issues of building up and sustaining living labs with senior citizens.

In interaction design and information technology contexts, a living lab can be anything from a lab environment with a natural setting to a whole city or urban environment (Folstad 2008) and there are multiple organisational challenges to set up and run a living lab (Kanstrup 2008). In our work we set up our living labs as open innovation environments where co-creators (people from different backgrounds, with or without ICT/design experience) mutually work on future concepts. Our living labs are based on the notions of design labs (Binder, Brandt, Halse, Foverskov, Olander & Yndigegn 2011), that are open and iterative. Our understanding of living labs is that a living lab is a framework for the practice of collaboration, where improvising and learning are mutually practiced (Binder, Brandt, Halse, Foverskov, Olander & Yndigegn 2011), rather than a pre-defined and established environment for collaboration. This type of living labs is in the intersection of participatory design and diverse ICT living lab definitions. In our context, we see participatory design as the practice of participation, where the everyday practices are explored through co-design dialogues together with all stakeholders (Brandt, Binder & Sanders 2012). Therefore, our prototypes are exploratory prototypes (Heyer & Breteton 2010), which are developed through a process of participation and in an open collaboration approach (Binder, Brandt, Halse, Foverskov, Olander & Yndigegn 2011, Björgvinsson, Ehn & Hillgren 2010, Brandt, Binder & Sanders 2012).

The project & methodology: Give&Take is a service design research project with a multi-disciplinary international team. During the lifespan of three years, the team of researchers, SMEs and senior participants co-design a reciprocal sharing-service for local neighborhoods. In the G&T project, we use a participatory exploration approach together with open innovation practices to establish sustainable living labs. In the first year of the project, we organized open collaboration between multiple stakeholders (researchers, companies, municipalities and senior citizens) through design laboratories. From the second year on, based on the gained knowledge, we established five living labs in two countries.

The engagement of senior citizens: From the early days of the project, the team established dialogue meetings, interviews, workshops, co-design and community building activities as design labs and living labs. The main aim of this process is to stimulate co-design sessions together with senior citizens and to mobilize them as co-designers. Participants of the co-design sessions are local members of different neighborhood centers in Austria and Denmark. This project approaches senior citizens not as a specific group defined by age, but rather as active participants of the design and co-creation processes. Therefore, the seniors that are involved in this project are people who like to actively contribute to societal

discussions or neighborhood events. Although we concentrate on retired people only, and this can be achieved by a certain biological age in most cases, our group is heterogeneous in multiple perspectives such as income, education, technology usage, everyday rituals and interests. We further concentrate on neighborhoods or communities of shared interests as the space of collaboration and set our activities in each context differently.

2 A closer look into Vienna living lab

Entailed in living lab methodology is a significant amount of work to build up and sustain such a lab. (Luckner, Fritzpatrick, Werner & Subasi 2015) To give a closer look, we discuss the first six months of one of the Austrian living labs established around a neighborhood center that is part of a large housing complex.

The Viennese neighborhood centers are nonprofit organizations with a full monthly program throughout the year providing a variety of activities for all generations. Figure 1 shows all activities of the G&T project in this living lab between mid-September 2015 and mid-March 2016. During this six-months period, we organized and attended nine planned events, had three meetings with coordinators at the center and documented a continuous usage of exploratory prototypes between November 2015 and March 2016.

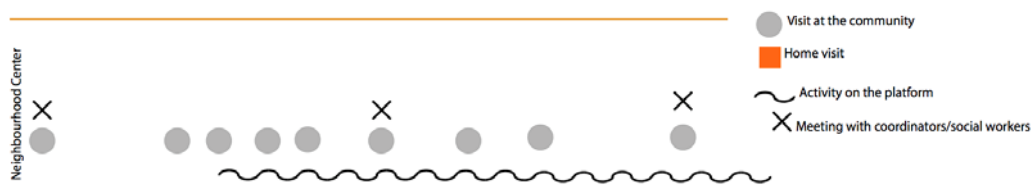


Figure 1. Sample living lab activities in one selected Austrian living lab (Vienna Lab), 6 months period (own figure).

3 Issues and considerations

Based on our experiences from these six months, we made the following observations: First of all, setting up and running living labs in senior citizens' own environments is a bottom up and very enriching experience for us as researchers and designers. The active involvement of researchers and designers in a setting

with different cultures, interior design and everyday life is a good training for openness, empathy and observational skills. Further, the insights and the engagement from the living labs that are carried to other stakeholders (e.g. via videos) are driving motivations for all the stakeholders of the project. What we learned about the everyday life of the community and its relation to co-creation processes are key insights for our design process.

In the rest of this discussion, we concentrate on the practical issues of setting up and running living labs, as we believe the fine details were the drivers of being able to engage senior citizens (or not) in the living lab during this period. We highlight three key issues that may be important for the future of establishing and sustaining living labs:

Researcher language vs. everyday language: During the project, we faced many challenges due to a possible mismatch between research practice and the everyday practices of the neighbourhood centre. Our processes on how to present to an audience, how to record data or how to get consents from people were defined by our research practice. But once we were in the field, it became clear that these practices were creating *a language* that was not fitting to the everyday language of the neighbourhood centre. As an example, after a slide-based project presentation from a computer, one of our participants said this project is too scientific for her. Another time, another participant said she very much liked the workshops, however she wouldn't like to be recorded or have photographs taken during this process. We even had a person leaving after the informed consent form was handed out to be signed, as he said it was too scary and serious to sign such an A4 size confirmation letter (as e.g. this reminds him something like a bank contract or a phone contract due to a "signature"). Here it would be important to question how far we can change and adapt these practices for the future practice. Can we make a totally different informed consent? Can we work around the recording process so that it becomes a natural part of the lab activity? How can we better present our work so that it doesn't sound that scientific?



Figure 2. Examples of techniques used within living lab engagements

Off-track motivators and celebration culture: In contrast to the language issue, we usually had a good experience of things that were not written in field manuals for participatory design, but which we based on our observations on what fits to

each particular context. At a time where the prototypes were not running very smoothly, we had a participant reassuring us that she was not participating in the project for the sake of the technology, but because she appreciated the kind personality of the field organiser and so continued to attend our sessions. In another session, we brought one of our guest researchers to the neighbourhood centre. During the session, our guest showed participants photos from her garden full of flowers on the other side of the world. The same hobby shared across continents initiated discussions about how the technology could be used for sharing.

And last but not least, we observed multiple instances where many small gestures on our part, such as bringing homemade cakes, or self-made gifts for the participants for Easter, all initiated unexpected communications and generated positive reactions (see Figures 3 and 4):



Figure 3. Our guest researcher showing her backyard flowers, gifts we made for Easter via laser-cut and the home-made cake

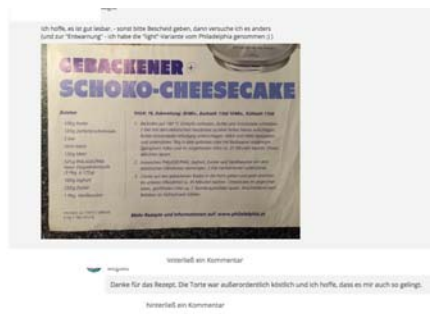


Figure 4. Cake recipe put on the Give & Take platform after the meeting

Sustaining living labs without coordination: One key aspect of the living labs is the designed process of co-creation. The field organisers apply a pre-planned process in each session. This includes the preparation of materials, invitations, wrapping-up of the sessions and creation of the elements in-between sessions to sustain motivations, such as newsletters, photo stories and videos. On top of this, as mentioned above, a lot of human effort is put to sustain these relationships,

e.g., in the preparation of cakes, gifts, attending to out-of-work events that happen in the community such as summer parties and so on. The quality of the process is very much dependent on the time effort that is invested into every detail. Of course, all these cannot be seen as one-way actions from researchers. The researchers see a big value on the mutual learning process of the participation. In practice, it is important to pay attention to these details and allocate enough time and resources for these gestures.

4 Conclusions

Our insights from the last six months in one of our living labs point to a multitude of fine details that can build a better open innovative approach in living labs. As Lindley et al. (Lindley, Harper & Stellen 2008) summarized, ageing is connected to the broader concepts of social life, such as notions of relationships, and re-interpretation of reciprocity as more of an asymmetrical approach, where older adults have a lot to give, and often more than they need to take. The observations highlighted in the previous section can also be beneficial for practice of participation in living labs. Establishing living labs in a more equally-led way from the beginning, integrating the everyday language of the living lab environment right from the start instead of using a research language, and integrating celebration and surprise (e.g., having guests) into our research structures can be interesting ideas to support the building of relationships. A recent study showed that the ways ageing in the field of HCI is often conceived as restricting the way we design technology for older members of our society (Vines, Pritchard, Wright, Olivier & Brittain 2015). In order to tackle this issue for living labs, we need to question our own research practices and how they fit to the everyday life of the senior citizens we want to work with in our living labs.

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