

The Voices of the Users – How Technology Can Help in Co-Innovation

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Design plays a growing role in the public sector. Designers' tools and service design processes have put an emphasis on empathy for the users, creativity, visual thinking, and co-design. The focus of this paper is on how co-innovation with users can be done in the public sector, and how the service design tools – service prototyping in specific – are able to help in doing this.

1. Introduction

Public services need innovative solutions to address the big social challenges that are taking place (Thurston 2009). Due to cost pressures, they need to find more efficient and customer-oriented ways to organize, produce, and develop services (Thurston 2009; Mulgan & Albury 2003). The public sector is adopting the concept of innovation, which was once seen as a private sector interest only to increase profits. Now, the public sector is also interested in seeking out new tools to help ideate and develop better services and solutions to the societal challenges they are facing (Borins 2002).

A growing interest has been recognized among citizens in more active participation in decision-making. Simultaneously, the digitalizations of services and social media have been making new kinds of services and their co-creation possible. Lehtonen and Tuominen (2011) use the metaphor of 'the voice of the user' to refer to information on a particular user's preferences and we argue that this voice is easier to discover and take into account in service development through prototyping and that designers are the key persons in making these voices heard.

The aim of this ongoing project is to create a collaborative model for the public service concept that will boost the efforts to provide better working possibilities to the young unemployed people working in local youth workshops and prevent their displacement from society. The project emphasizes an economically efficient way to organize services via the improvement of the dialogue between different branches of administration, organizations, and individuals. Understanding what kinds of services are interesting from the viewpoint of young people is the core issue. More specifically, our aim is to co-innovate a model for youth workshops and companies for co-operation.

Youth workshops are considered as an important element in Finnish youth service system works on national, regional, and local levels (Kalliomaa et al. 2004). The development of this direction is seen as important because the youth workshops, which have earlier been seen as work experience providers for young people, have shifted their focus into preparing them for educational and work life by supporting the development and strengthening their skills of social and life management (Ministry of Education 2006).

The broader goal of our project is to show how the perspectives of users and customers can be taken into account in innovation throughout a value chain and also separately in each organisation participating in the value chain. Our role as design researchers is to bring service design and collaborative working methods into the development process of the youth workshop-company collaboration model and study how these can catalyze the involvement of end users in the creation of service innovations.

2. Public Services, Design and Innovation

Services, in their different forms and characteristics, have developed a fundamental role for the growth and sustainability of innovation and competitiveness. In flourishing innovation studies and policy programmes, growing attention has been given to the role of design and creativity as well as for user-centered approaches (Meroni & Sangiorgi 2011). According to Mulgan and Albury (2003), effective

government and public services depend on successful innovation – to develop better ways of meeting needs, solving problems, and using resources and technologies. It should be seen as a core activity to increase the responsiveness of services to local and individual needs and to keep up with public needs and expectations.

Many kinds of barriers to innovation exist in the public sector. Public sector organizations have difficulties in increasing the innovation capacity that could co-exist with the complex processes and operations they perform daily (Hammer Jakobsen 2012). Professionalism can hinder co-innovation, as organizations are very hierarchical and the existing roles and traditions of delivering the service are deeply embedded. Public services are also visible to the public, so failures and mistakes will also be public. Changing the mindset from top-down to bottom-up innovation is seldom an easy or short process (Eide Knudsen 2012).

Service innovation is a complex interdisciplinary effort. Between organizational innovation, where staff plays an active role, and marketing innovation, where users are participating, relationship innovation can happen when both groups work together (Meroni & Sangiorgi 2011: 13). Understanding the users as a driving force, or at least a source, of innovation is not new. We have noted that practitioners in the public sector are nowadays aware of the importance of user participation, but still lack the skills and tools to practically involve citizens and innovate with them.

Service design might be the key to this problem. Many of the methods applied in service design, originating from user-centered and participatory design traditions, aim at ensuring the users' engagement (Hasu et al. 2011). Service design could have many opportunities in public services, such as building capability from within organizations, creating more meaningful user involvement, and personalizing public services (Thurston 2009).

Understanding of innovation needs to go beyond the traditional 'hard' dimensions of technologies and physical matter; we need to include 'soft' dimensions that are related to people, people skills, and organizations (Meroni & Sangiorgi 2011). Systematic changes to improve experiences won't happen overnight; to create change requires work at all levels. By using service design techniques that enable engagement with users and understanding of their experiences, it is possible to turn involvement into real service improvements (Thurston 2009).

Design has a growing role in the public sector and, simultaneously, the design profession design is changing as design moves toward experience-based co-design (Szebeko 2011). An important characteristic of user experience is its holistic nature: the service and its tangible elements together create the overall user experience. Service design brings a useful set of tools and techniques that enable public services to fully understand the way their service is experienced and make changes based on this understanding (Thurston 2009).

In our experiences, starting with capabilities and ambitions has worked well. We should focus our attention on giving people responsibility again and empowering them to be active in producing the services. We shouldn't look at what people can't do and then just work for citizens by delivering services based on their incapacities. In the public sector, not only creating systems, but creating empathic systems should be the focus (Hammer Jakobsen 2012).

Buur and Matthews (2008) point out that enabling users to participate is never a straightforward application of certain methods into new contexts that guarantee a successful outcome. Instead, the methods, as well as the whole process, need to be tailored to work in the context. We aim to develop the ways of co-innovation hand in hand with the research. Our approach is prototyping. According to Blomkvist (2011), service prototyping is essential to service designers' work because it is collaborative, makes services visible, and helps with communicating about the ideas between the stakeholders.

3. Prototyping as an Agile Technique Supported by Agile Technologies

Traditional design approaches emphasize the importance of good background research, planning, and understanding before moving the process further. In the agile development process, which has its roots in software development, this is considered as a 'bad thing,' as stated by Beyer et al. (2004). However, in service design, the prototyping methods aim to compare, combine, and enhance ideas in iterative cycles in collaboration with the stakeholders. Due to several similarities with the agile approach, the term has also been adopted in service prototyping to better describe its rapid methods.

Our research has focused on developing new technology-assisted methods to prototype customer journeys, service moments, and different touchpoints quickly and iteratively. The SINCO (short for Service Innovation Corner) prototyping laboratory concept is an attempt to facilitate experience prototyping with technologies as well as innovative working principles (fig. 1). SINCO consists of the environment and a set of tools, which aim at rapid service prototyping and interaction design. Described more openly, it is a place where you are 'allowed' and enabled to do whatever is needed to concretize and test service ideas.

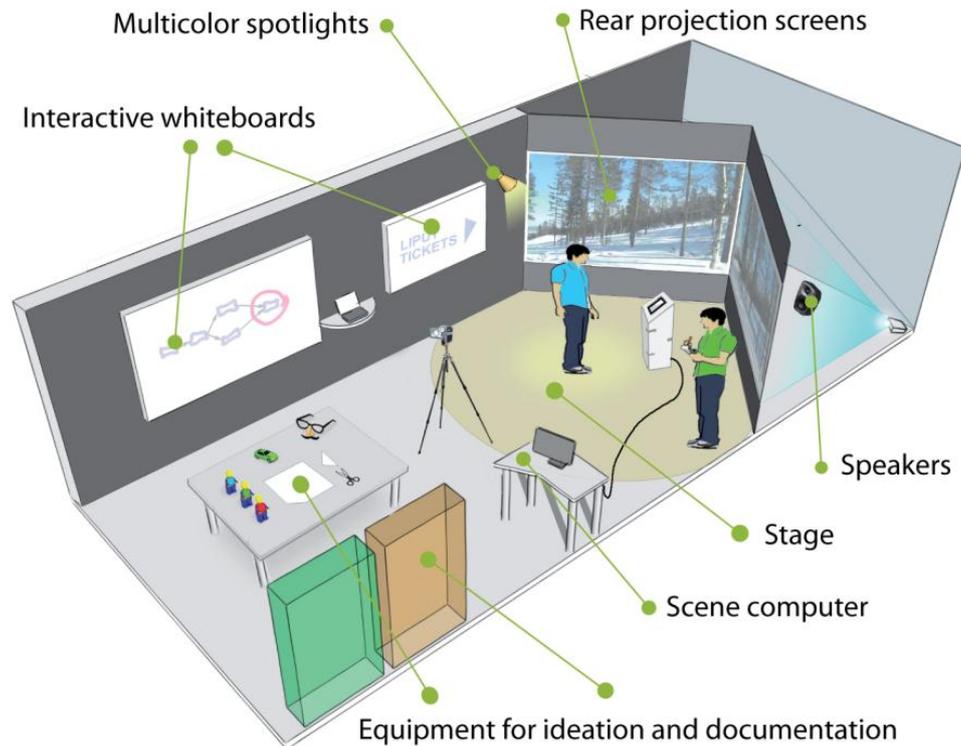


Figure 1. Overview of SINCO service prototyping laboratory (Rontti et al. 2012).

Concretization of an idea is the main purpose of prototyping in service design (Fulton Suri 2008). SINCO uses technological equipment and digital material such as photos, videos, and sounds to create the atmosphere of actual service moments for prototyping and re-enactment. This helps to concretize different aspects of service concepts and ideas to participating users' by giving them a better idea of what the service experience might contain and feel like.

In the SINCO environment, technological devices like computers, projectors, and speakers, along with other assistive equipment like projector screens and props, support the creation of service experience and concretize the roles of different stakeholders. Use of digital material is an agile way of prototyping through the ability to quickly build and modify prototypes. However, technology alone cannot form a prototype of a service. It is the people using the technology who, by prototyping gain experience and insights, get ideas, and enhance those, eventually finding the seeds for all kinds of innovations. In this Youth Workshop case, a portable version of SINCO was utilized for prototyping. It has simplified versions of all the main elements to form the prototyping environment.

4. Case Youth Workshop

The methodology in our project consists of case studies. We apply action and activity research approaches, and emphasize the ways that help the participants of the case organisations to articulate their ideas for service concepts and processes. In this case, we studied the impacts of service design methods – especially prototyping – on participation and co-creation through a youth workshop case study. This paper uses this case study and its nine documented hour-long service prototyping sessions as research data.

The primary mission of a youth workshop is to give young unemployed people a grasp and experience of the working culture and routines of working in a company, but also to serve local small companies better and hopefully do fruitful collaborations, which would in most optimal situations result in the hiring of the unemployed people after their youth workshop periods. The main challenges are the short-term contracts of employment of instructors and high turnover in youth workshop participants.

Due to positive experiences of a collaborative website during an earlier public sector co-design project with users (Kallio et al. 2011), we had a simultaneously running social media platform during the entire co-innovation project. The ideas generated on platform were divided into five main groups: marketing, contract, starting, doing [the work], and delivery, to use as a starting point for prototyping. The aim here was to be as concrete as possible and stay on the practical level to enable open discussion and ideation between different stakeholders.

The prototyping event was facilitated by researchers, two of whom played an active role in the prototyping actions, and the other two focused on observing the situations and interviewing participants after each prototyping session. The participants were able to test and evaluate ideas and give immediate feedback about the quality and suitability of the service enhancements, but also to create new ideas, based on the experiences they got during the prototyping session. The innovation process of the participants was managed, but loosely enough to leave room for new ideas and discussion, which led the way of prototyping in directions that the prototyping team felt was valid.

Participants in prototyping sessions included thirty-four young people from the youth workshop, seven youth workshop coaches and instructors, two municipality representatives, and three representatives from private sector companies. Also, two other municipality representatives visited during the prototyping event to observe the prototyping without participating in it. All the sessions were recorded.

5. Case – Co-innovation Through Prototyping

Prototyping helped the participants to come up with new ideas for the collaboration model. It was also considered as a way to discuss the entire process, making it easy to detect possible challenges to the development of solutions. The SINCO environment, as well as prototyping in general, was considered by participants to be a very demonstrative way for presentation of the collaboration model. Similar advantages in communicating service ideas and concepts between different stakeholders have been recognized earlier in private sector cases conducted in the SINCO environment (Rontti et al. 2012).

The rapid concretization of fresh ideas impressed the participants with the effectiveness of the method. Prototyping made it easier for all participants to share their opinions, discuss them together, and experience and evaluate the ideas from different stakeholders' points of view.

The prototype was built around specific theme of every participating group, so they were able to share their concrete-level views, experiences, and expertise of the workshops' current working model. The participatory working method was harder to make use of for some participants than others. The lights of the prototyping environment were dimmed down to create a safe atmosphere to encourage the sharing of ideas and thoughts for every participant.

Key Findings

Importance of Facilitation The centric role of facilitators was recognized by researchers and participants during the prototyping sessions. Facilitators led the prototyping, concretized the ideas from participants, and stimulated discussion by asking questions and altering the prototype.

Increased Understanding Prototyping in the SINCO environment was considered as a clarifying experience, which helped to understand the service idea better. It worked as an information-sharing tool between different stakeholders, and also gave a better perspective for the participants of the entire service process. Changing roles during prototyping, such as a young unemployed person taking the role of an instructor, helped to broaden the perspectives of the participants too.

Stimulating User Ideation The prototype also helped participants to put themselves into the mood as they behaved as during an actual service. As a result, the participants shared numerous ideas, and several of them mentioned in the interview after the prototyping session that the prototyping helped them to generate new ideas within the prototyped context.

Solution-aimed Thinking The overall attitude in the prototyping groups was very positive, and the ideation that happened during sessions was almost entirely solution focused. This was quite a contrast to the web collaboration platform, in which the discussion was mostly critique and problem led.

Practice-based Innovating The topic of prototyping was in all sessions based on participants' everyday activities, thus making the prototyped situations more or less familiar to the participants. This helped the participants in understanding, but also daring to share their opinions and ideas.

Allowing to Imagine Regardless of the practice-based nature of service prototyping, it also enabled the participants to prototype imaginary service scenarios, like a 'worst case scenario'. Testing out something irrational or improbable is also a method to stimulate creativity, for which prototyping is an excellent tool.

The practical-level approach of prototyping received positive feedback from participants. As one of the workshop instructors said: 'This kind of development work supports Youth Workshop's goals. Prototyping demonstrated well our everyday encounters with customers.'

The prototyping was a success, with more than 120 ideas written down during the prototyping sessions, which were warmly welcomed by the Youth Workshop staff and the Municipality representatives. Also, the researchers learned a lot about the Youth Workshop processes, their ways of co-operating with companies, and the roles and areas of responsibility in the workshop.

Also, the companies' representatives shared good information and knowledge for the collaboration model, especially from their point of view. They also mentioned that they did not have high expectations for the prototyping sessions, but said afterwards that it had been a very positive and enlightening experience for them.

6. Conclusions

Even though the prototyping did not produce entirely new service concepts, it had several positive outcomes. Numerous ideas were gathered to enhance the existing workshops and to help collaboration with companies, eventually helping also with building the collaboration model. Experience sharing between the stakeholders was also considered very helpful for the entire project's goals.

Also, the findings from prototyping were encouraging and received feedback, plus our findings support the decision to use agile ways to prototype with this public sector case. These methods are suited well for both evaluating ideas and stimulating the prototyping participants to share their thoughts and ideas for building a collaboration model. Prototyping revealed similarities in different workshops, which lead to categorizing different workshops in four groups: Product, Service, Digital services and Learning. This will help in developing individual company-workshop co-operation models and creating co-operation between different workshops.

From the perspective of the utilization of modern technologies, using a social media platform was also considered as a good move to open up the development process of the collaboration model to a broader audience, and also to gain opinions and ideas from people who weren't participating in the prototyping sessions. However, based on our experience, we argue that designing a service that takes place in a physical environment should not be collaboratively developed entirely on web-based platforms, but face-to-face events are also needed to prototype, concretize, and evaluate the ideas and concepts.

The 'quick and dirty' prototyping represents a rapid way to concretize ideas, and when combined with advanced technology elements of the SINCO prototyping environment, it enables agile ways of working in collaboration with end users. In short – it's all about the right tools, and the right way to use them.

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