LOST IN CO-X
INTERPRETATIONS OF CO-DESIGN AND CO-CREATION

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ABSTRACT

In the last decade, co-design and co-creation are terms that appear widely in scientific literature, in professional magazines, websites of product development companies, design research and market research agencies and even public organisations' reports. We have noticed that the terms are often tangled. The objective of this paper is to clarify the relationship of co-design and co-creation in the context of design and design research. We aim to make sense of the background and use of the terms to show similarities and differences between them. We review literature and discuss recent cases to demonstrate the spectrum of co-X. Our main aim is to clarify the co-terms for our design students in the rapidly evolving design research field.

Keywords: co-design, co-creation, user engagement

INTRODUCTION

Co-design and co-creation appear frequently in user involvement related discussions and cause confusion among the design community. This is especially true among design students. What is the difference? Was one before the other? This paper aims to develop an understanding of the co-X, i.e. investigating the similarities and differences of co-design and co-creation. Therefore, we first introduce two examples of academic environments that use both 'co-design' and 'co-creation' for describing similar projects that include a large toolbox of creative methods as well as users' and other stakeholders' involvement. Since even these two similar institutions are confusing the terms we see a need for clarity and start by looking how others have used these terms.

First, co-design has been part of the Department of Design's research agenda at Aalto University School of Art and Design for some ten years and part of the education for approximately five years. The research on what we call 'co-design' and the cases and experimentations under that title, have been built on user-centred design and empathic design approaches. The early research interests in interaction design and usability were widened with studies that considered design for experiences and tried to capture a more holistic picture of the 'user'. Empathic design starts with a need to understand user experiences in early phases of the design process (Koskinen et al, 2003). For that reason combinations of both objective and subjective methods are applied. The reason for the application of 'less-objective' methods, beyond the user insights, is that they create shared experience and common reference points within the design team and other stakeholders (Fulton Suri, 2003). Thus, the experience driven empathic design that first focused on being involved with the users in their own environments also addresses the news kinds of collaborations with the design team and partners to promote shared visions.

The researchers most having background in industrial design, have also emphasised the applications of creative and designerly approaches in research. We have studied, developed and applied various kinds of methods for understanding users, and to inform and inspire designers by inviting users and representatives of partnering companies to brainstorm solutions and to make interpretations together. The toolkit has included approaches such as design probes (Mattelmäki, 2006), design games (Brandt, 2006), collage-making and make tools (Sanders & Dandavate, 1999). We have also experimented with empathic design practices in design areas beyond product and interaction design.

Without exception the experiments in which users or other stakeholders are invited to contribute to the design process have been called co-design under the larger mindset of user-centred design (UCD). In co-design the designers (or design researchers) typically facilitate the collaborative process but often also participate in the process as one of the contributors. The co-design activities typically aim at searching new potential directions and producing design ideas and solutions. However, they can also be about making sense of the topic or expressing experiences collaboratively. But even then the activities are part of design related processes one way or another, typically in the early phases of the exploring.

Second, at the faculty of Industrial Design Engineering, Delft University of Technology, a similar development has been taken place. We have been exploring the co-X methods and techniques in our research agenda and education for the last ten years as well. ID-StudioLab, a design research community within the faculty, promotes and conducts user-centred design projects (van der Helm et al, 2010). New methods and tools are continuously being developed to fruitfully involve users in the design process (see e.g., van Rijn et al, 2009, Stappers et al, 2009 and Saakes, 2007). Contextmapping (Sleeswijk Visser et al, 2005), for example, as a procedure, was developed to research people's everyday context in order to inform and inspire the design process. Contextmapping is based on the application of self-documenting kits and make tools (Sanders, 2001) and involves users as experts of their experiences in the design process. We have not particularly been using the term co-design for our projects, but like design researchers at Aalto University, we have applied various kinds of methods for understanding users, invited users and representatives of partnering companies to explore, brainstorm and interpret together.

In contrast, we have been using the term co-creation when users are stepping into the shoes of designers, are given tools to be able to 'create new ideas' and are facilitated in the creation process by designers and researchers. However, stepping into the shoes of designers might indicate different roles for these users as in co-design activities. A user can be an information provider, a creative mind, an evaluator of new ideas, etc. To be honest we ambiguously use the term co-creation to either indicate that in a project users are actually 'creating' new ideas themselves (through the guidance of design researchers) or to indicate an iterative process of user involvement and users and stakeholders are consulted in every stage of a design process such as product development (see e.g. Sleeswijk Visser and Visser, 2005). Both of the descriptions of co-creation are what the Aalto design researchers refer to as co-design as an umbrella term.

Co-X competence in both of these academic environments has grown in close connection with the development of industrial and interaction design but the application area is getting wider since a few years. The kind of co-X activities that we tend to apply can also support various kinds of collaborations outside the more traditional design field. These new fields include social design (e.g. Brown, 2009), transformation design (Burns et al, 2006), service design (e.g. Evenson, 2005) and activities related to design thinking (e.g. Brown, 2009).

WIDENING THE VIEW OF CO-X

In the following section we go through some of the relevant approaches and authors for discovering the various aspects of co-X. We are aware that there are much more, but we have chosen ones that have been either influential to our co-X dilemma in the first place or are timely examples of the current confusion in the application of co-X.

PARTICIPATORY DESIGN AND CO-DESIGN

Participatory design (PD) is tightly connected to co-X. PD has its roots in the 70s Scandinavia, where joint decision-making and work practices started to receive attention. One of the key words in PD is empowering; the ones who are affected by design should have a possibility to influence the design. The participants are also seen as beneficial contributors to the design by offering their expertise and knowledge as a resource in the process. The early PD projects were mostly conducted in work-settings. PD approaches had connections with political statements on e.g. the workers' possibility and right to affect their work (among others Ehn, 2008).

PD thus is about involving users in design or as Ehn writes "with a special focus on people participating in the design process as co-designers" (Ehn, 2008, p.

93). They are envisioning use before it actually takes place. This also underlines one of the characteristics of co-design: it is about users or more generally, people imagining and planning with issues that are not-yet-existing and utilizing the skills that are in the core of professional design competence.

Participatory design and co-design are often used as synonyms in the Nordic countries. Co-design carries perhaps a bit lighter weight on the political attitude but builds on the same mindset and tools.

In a recent book published by DAIM project (Halse et al, 2010) Binder (2010), a representative design researcher with Scandinavian PD background, describes co-design sessions as workshops "for sketching and trying out possibilities" (p. 19). His colleagues Brandt and Agger Eriksen (2010) further describe co-design events as 'series of meetings into which the core design team invites other important stakeholders'. The name co-design event according to them points out "the open-ended, collaborative, exploratory and creative" working mode, i.e. "They are temporary spaces for experimentation and collaborative learning." (p. 71). Although the weight in the book is in the term co-design, the team also recognises the presence of co-creation: the material for co-design events needs to be designed so that it invites and facilitates co-creation (Foverskov and Dam, 2010, p. 44). Here co-creation is an activity or a moment of creating something together, thus takes place in the co-design sessions that are about collaborative exploration, planning and learning. In this project manifesting 'users' or their involvement is not really the issue. Instead various people from shopping mall customers to shop managers and waste handling experts are invited to 'rehearse the future' with the support of the co-design methods.

In another recent publication (van der Lugt et al, 2009) from the Dutch context titled Co-design Pressure Cooker co-design is defined as a method in which users are invited to actively participate in the design process similar to PD. Here the term 'co-design' is explicitly used as a collection term for the many methods that can be applied in different stages of the design process. Whereas 'co-creation' according to the authors is one of the methods of co-design, in which users create solutions.

Also Lucero Vera talks about co-designing in his doctoral thesis (2009). He has been exposed to both Dutch and Nordic research communities which is why his view on co-designing can be a valuable example. He states "As I firmly believed in the UCD I decided to fully involve users in the creative process of finding solutions to support their work by conducting co-design sessions." (p.105). He then continues describing the co-design workshops that he calls dialogue labs referring mostly to authors within the PD tradition such as Buur, Binder and Brandt. He thus builds on user-centred design (UCD) in which PD inspired co-design is part of the process.

Adding an Italian perspective to our exploration we looked how Rizzo (2010) describes co-design as an umbrella that connects a range of tools and practices. She does not refer to co-design as a synonym to PD but sees it as an evolutionary approach from UCD. However, she underlines that UCD and co-design are different. UCD is a precise design methodology whose 'application conducts designers to develop usable design solutions for end users' while co-design 'is a set of creative techniques whose aim is to inspire the design process.' In her view, the shifts from UCD and object-centred view to pleasure and experience-driven perspectives have set the ground for co-design. Both university units described earlier have witnessed this evolution and relate to Rizzo's view, however, also influences from PD can be identified such as the empowerment attitude.

Keinonen (2009) has reflected on design research methods and has identified that there are three layers in them: instrument, competence and agenda. In his view method is not just an instrument that can be taken from the shelf, but the application can be built upon a particular personal competence such as empathic sensitivity. Furthermore, certain methods and their applications can be part of an agenda such as advocating for the empowerment of employees in the decision-making.

The discussion above can be summarised with Keinonen's layers. Co-design connected with PD has an agenda. It is about empowering people that are affected by the design. It also emphasises an experience-driven mindset. In addition co-design is a set of tools, instruments that allow and trigger co-design and events as forums in which the co-design takes place and in which the tools are applied. The competence in co-design seems to have a role too:

the future 'users' are invited to utilise their competence, experiences and creativity for design. However, although the presence of 'users' is acknowledged as the starting point, the participants in co-design can be selected with a wider scope. Finally, co-creation seems to open up into two interpretations: the first one is a creative moment, atmosphere in a co-design event. The second is a method in the co-design process or during an event where the users create solutions.

GENERATIVE APPROACH AND CO-X
One of the influential practitioners in emphasizing users participation in design is Liz Sanders whose work has greatly inspired and affected both of the authors' work and teaching. We have adopted her approaches for enhancing everyday people's creative expression and the mindset of valuing people being experts of their own experiences. In order to clarify her stand we conducted a review on Sander's publications which is summarized in the following: Sanders (1992) sees that participatory design is user centred design taken to another level. Her thoughts have similarities to Scandinavian PD community's but she does not refer to its work. Here, the participation is about involving consumers in the design process. She contrasts this approach to traditional UCD where user research is about questionnaires, lab tests and focus groups, and in which these results are reported to the designers. She further points out that participation does not consider only users but also all the stakeholders in the product development process (which stems with DAIM's co-design mindset.)
In her keynote from 1999 she emphasizes the end-users' role. In her opinion they can and should be the most important players in the design process. She defines co-design as "people designing together" This happens when people collectively apply new kinds of visual tools as they participate in the design process. (Sanders, 1999).
The publication from 1999 (Sanders & Dandavate, 1999) contextualizes her work with what she calls the emerging participatory design approach. Her main point in the paper is that "it is possible to gain access to the experiencer's world only through his or her participation in expressing that experience." The tools for participation and expression that she calls

make tools, are "a new language for co-design" (p. 90). Co-design is about as facilitation of "exchange between people who experience products, interfaces, systems and spaces and people who design for experiencing." This is one of the key publications that has influenced both co-design and experience design and connects strongly to Rizzo's view on co-design.
In 2001 Sanders stresses the need of a new attitude in design for experiencing. It is about respecting the opinions and creativity of people designers are designing for. She introduces a concept collective creativity and believes that it is more potential and powerful than individual creativity. (Sanders, 2000) Her 2001 article (Sanders and William, 2001) continues the discussion based on creativity references. She elaborates on the need of supportive tools for harnessing people's creativity with visual communication. In another publication from 2002 she continues with the same line of thought, now introducing a new design space namely co-design space in which "interdisciplinary experts in design and research will work together with ordinary people." (Sanders, 2002)
In her paper from 2005 (Sanders, 2005) she further develops the earlier concept of collective creativity and brings forward the term co-creation. It is about everyday people's (who were called earlier as consumers and then as end-users) creativity and eagerness in being involved and expressing their creativity. Sanders calls for 'co-creating spaces'. Those are settings in which designers and everyday people work collaboratively throughout the design development process. Her 'co-creating spaces' can be interpreted close to what DAIM researchers call co-design events, however in her view they are not temporary but something that take place during the whole design process.
In the more recent publication (Sanders and Stappers, 2008) she refers to co-creation as 'any act of collective creativity, i.e., creativity that is shared by two or more people'. Whereas co-design is used 'to indicate collective creativity as it is applied across the whole span of a design process'. This shows that she sees co-creation as a very broad concept and when applied in design "co-design is specific instance of co-creation". This statement is

in contrast with the earlier interpretation that co-creation happens in co-design events.

This review of Sanders' publications resulted an understanding of how her application of the co-x terms has been elaborating over the years including a strong agenda and development of instruments. Firstly, she stresses involving users who she calls 'everyday people' in the product development process.

Secondly, she also introduces new kinds of tools that aim at supporting people in expressing their experiences and using their creativity in the design process.

Thirdly, she points out the attitude building of respecting everyday people's creativity and Fourthly, enhancing the creativity and exchange between people in a process she calls space for collective creativity (co-creation). In her view the actual creation in co-creation is the collective creativity, and therefore design (in the co-design) is just a part of the bigger collective creativity. What she seems to refer to as co-creation, rather than a process or practice in design, is a larger trend of openness and creative mindset.

Summarising the discussion above co-design seems to open up into four directions. The first one emphasises the role of the user following the traditions of UCD and participatory design. Its main concern is that the users voice needs to be heard in the design process. The second direction focuses on methods and tools that support users to tell about their experiences and design ideas that can be interpreted and that inspire design. The third is about design collaboration in which users and designers and alike exchange ideas, envision in a collaborative creation process. In the fourth direction users have important roles but other stakeholders are also meaningful in the exploration and envisioning process. This direction does not put emphasis on the engagement of the users but invites a wide range of people to brainstorm and learn together. The engagement often takes place in several workshop-like events. In these events creative envisioning and making are important and co-creation needs support with methods and materials.
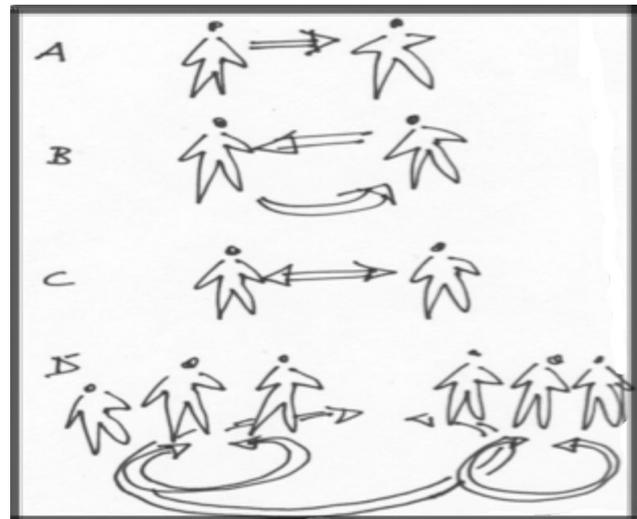

Figure 1. The four co-design directions: A) The users are given voice and their expertise is utilised in the design process; B) Users contribution is facilitated with tools provided by the designers or researchers; C) The designer is not only a facilitator but participates in the collective creation; D) Designers and design researchers support and facilitate a collaborative process of various stakeholders, not just users.

EVEN MORE CO-XS

Co-creation as a term also appears outside the design field such as in business literature and marketing and has been brought up e.g. by Prahalad and Ramaswamy (2000) about ten years ago. They talk about creating value with customers as part of market and business strategy. The business-like perspective on the term co-creation has gained much attention and involves new topics such as mass-customization and open innovation.

A form of co-creation in business also appears in the sense of being creative together, which seems to stem with Sanders' thoughts on collective creativity. For example John Winsor (2006) in his book titled "Spark- Be more innovative through co-creation" states that co-creation is about engaging with the internal team as well as with the customers and their. His examples of co-creative practices are e.g. using visual triggers, cross-pollination of ideas and providing inspiring spaces for sharing and discussing in the offices. Windsor also points out the importance of creating new kinds of dialogues with the customers. In this way co-creation is not necessarily connected to design as such but indicates an atmosphere and practice of fruitful and innovative business.

Another example of the wide applications of co-X points at open innovation. A strategic consultancy, Fronteer Strategy, in The Netherlands defines co-creation as "the practice of collaborative product

and service development: developers and stakeholders working together" (Paaper, 2009, p. 2). They see co-creation as a large concept related to open innovation where ownership and openness of the process are the main concerns. They thus use the term co-creation as a mindset and collection of tools rather than a focused method.

Without going further to the open innovation or the questions concerning ownerships in e.g. mass-innovation these timely examples illustrate the current trend of engaging various kinds of people in collaborative or collective contributions. In conclusion, business and marketing are using the co-creation term widely to address any stakeholder involvement and/or engagement in innovation processes.

Moreover, the new boom of 'service design' further confuses the usage of the co-X concepts, co-creation in particular. Service design is often referred to be human-centred and the many of the tools utilised come from UCD and PD practices from observation and probes to various kinds of co-X workshops (see e.g. Miettinen and Koivisto, 2009). However, co-creation in service design is applied to mean at least two things according to Birgit Mager (2009). First, clients and customers participate in to the process of exploration and creation alike PD and in Sanders' approaches. Second, the customers also participate to the service delivery process, i.e. services are not purchased as goods but they are produced and consumed in interaction with the customer and service provider.

Also Vargo and Lusch (2008), who advocate for service dominant logic instead of traditional marketing thinking, point out the service co-creation as "assisting customers in their own value-creation process" (p. 257). One of the mindsets behind the service-dominant logic is customer-centric thinking, but it also points out bringing organisation partners to join the co-creation process.

This is where a lot of the confusion comes from: methods that were developed for co-designing with potential users or other stakeholders are now utilised in service design to create potential service solutions with clients, the solutions of which are then to be co-created with customers and producers.

Taking the participation even beyond PD, Cottam and Leadbeater (2004) suggest that co-creating health services could be a process in which the patients, citizens or collaborative communities take responsibilities in creating and contributing to services along with e.g. health care professionals in the public sector. Then, the term co-creation is used to describe a longer process of dialogues and engagement that includes sharing risks and responsibilities in particular, not a unique event or moment in a workshop. In this anticipated situation everyone is a designer according to Cottam and Leadbeater's view. The professional designer's role then becomes one of a coordinator, developer and provider of co-creation tools (Cottam and Leadbeater, 2004). This view is in line with Sanders' thoughts.

This review shows the unclear use of co-design and co-creation terms and that co-X covers a wide range of activities both within the design field and beyond. In design context co-creation addresses creative collaboration within organizations, between the design teams and users, but also among other experts, collaborative companies, or even networks of stakeholders. The objectives of such activities are to apply the various participants' expertise into design projects as well as to support engagement in change-oriented goals whether defined as 'design' or referring to other kind of development processes.

To summarise the review we list our findings:

Co-design is

- utilised in design context in which designers are involved and the topic of the activity is related to design exploration, envisioning and solution development.

- an empowering mindset and it gives voice and tools to those who were not traditionally part of design process.

- about engagement of potential users but also about stakeholder collaboration.

- a process and tools of collaborative engagement, e.g. events for learning and exploration.

Co-creation in design

- is a creative, mood/mindset and methods within co-design process

- is about exchange of ideas, experiences, expertise

- is temporary. It has specific parts within the design process

Here we have mostly focused on the terms being used in the design field. It has to be emphasised that co-creation, however, has several meanings beyond design:

- a collective creativity as a mindset for collaborative activities (Sanders)

- business discussion about openness and exchange as well as networking and crowdsourcing to create new values

- service co-creation as the moment of creation when a service is being delivered and even sharing responsibilities when creating and offering services

Based on the literature above and our own experiences we have identified that the following issues seem to have influenced the usages of the co-X terms:

a) The tradition, discipline, community and the discussion the co-X practice or research contributes to (PD, creativity, services, marketing, open innovation)

b) The attitude from user empowering to stakeholder engagement (whose contribution is allowed and emphasised)

b) The professional backgrounds and the roles when using the methods (designers or researchers and the level of participation)

c) The objectives and outcomes (collaborative learning or business profit)

CO-X CASES

The next section discusses five illustrative cases from our own practice or from our colleagues. These cases are chosen because show the variety and complexity of co-design.

The first case shows a project, where an individual designer organises an interactive co-design process with children. The second case is from business context and shows a typical product design agency that is implementing short user involvement sessions during their exploratory design activities. The third case zooms in on getting together various stakeholders and support envisioning and shared learning in the development phase of a new building and platform of activities. The fourth case discusses

a service journey project in which the designer's role was in the planning of the stage for the collaboration in early phase of a service design project. The last case describes a service development project with the mindset of users having a large role in the delivery of the service and were therefore involved in many stages during the entire process, but as not as designers, but as themselves in their everyday lives.

CASE 1 TEXTILE DESIGNER BUILDS A CREATIVE INTERACTION WITH CO-DESIGNERS

The first case illustrates kids as co-designers. A textile designer wanted to involve school children into a process of creating textile prints for children. The objective was to gain an understanding of the kids' world, their preferences and to listen to their opinions in a creative process. The kids were first explained what textile design is about. Secondly, they were given a set of hand made probing tasks that included questions for telling about their lives, hobbies and such, colour samples for selecting the favourite colours, drawing tasks for telling about their homes, their dream rooms and creating textile patterns. The designer then analysed the probing materials, made interpretations of the colours, the lifestyles and pattern preferences and collected them into mood boards and inspired by the results designed a set of patterns. Finally, the designs were evaluated by the same children. (Mitrunen 2010)
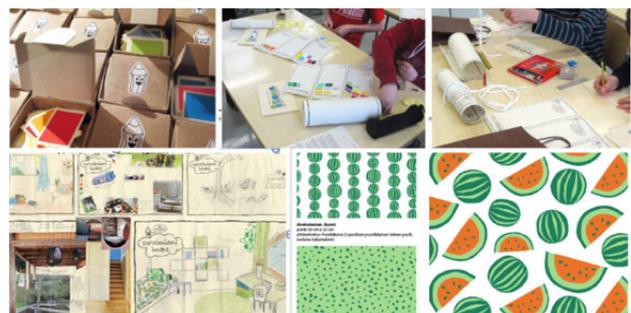
Figure 2. The upper row, co-designers instruments and co-design in action. The lower row, resulting design ideas on the left by the children and on the right by the designer.

Reflection

The process of involving children was described as co-design because the collaborative engagement was part of a design process. The designer (as part of her Master of Art thesis) had an agenda of widening her

own creative process with an interaction with the potential future 'users'. There were several steps in the dialogue between the designer and the children. The designer engaged the kids by providing them intruments, i.e. triggering tools to reflect their preferences and express their visual creativity. They also evaluated the resulting design patterns. However, the designer kept her designer identity and competence and was the one who was responsible of the final designs – although strongly inspired by the exchange with the kids, which could be described as co-creation in Sander's words.

CASE 2 FINDING WAYS TO INVOLVE USERS IN SHORT IDEA GENERATION SESSIONS

The second case is about a small design agency based in the Netherlands (WAACS) that started to consistently involve users in the idea generation phase since two years. The second author is often shortly involved as a consultant of user involvement. Sporadically they have asked or observed users to understand the context of use, but were not accustomed to involve users systematically before. One of the designers, trained in contextmapping introduced this method in a project to the other designers, which led to inspired insights for new product solutions. Since then, they have invested time and money to conduct user research in more and more projects.

Reflection

The design agency's core business is designing products. They see the value of involving users as a quick reality-check, i.e. to learn from users what they didn't know themselves or get confirmation about what the designers think the users' needs are. The role of the users is being informants to spark inspiration and to provide information about their everyday lives around a specific topic such as e.g., glue rollers. Where, how, what, when, why do they glue things and how do they experience that? The users are regarded as experts of their experiences and through the user study the context of product use is brought into the design studio.
The designers are the creators having responsibility of the quality and quantity of the created ideas. The users are not creating design solutions although they might suggest some ideas as they are asked to draw

their ideal products. The designers recruit users and ask them to do explorative assignments at home and come to the studio for a studio meeting. After the studio meeting, the users' involvement phase is over. The designers do not call this user involvement co-creation or co-design. But they refer to these activities as contextmapping. This case illustrates that even core design activities of design agencies are starting to see the benefit of involving users during idea generation. This is in line with Sanders' way of emphasising creativity and expression of experiences. However, in the spectrum of co-x this is a very small user involvement, and all authorities and responsibilities are in the hands of the designers.

CASE 3 ENVISIONING THE COLLABORATION ENVIRONMENT

The University of Art and Design Helsinki, Helsinki University of Technology and Helsinki School of Economics were merged to become Aalto University in the beginning of 2010. The objective of the merge is to build an innovative environment for multi-disciplinary education and research.
One of Aalto University's key projects is Design Factory (DF), a building and a platform that aims at joining people and activities from different departments. DF's main focus is in product development education and research but it also includes places for teamwork, meetings and various forms of collaboration with companies as well as workshops for experimenting and prototyping.
As the planning of the DF was still in progress design researchers proposed to organise three creative workshops, to discuss, envision and prototype DF together with the potential users. The workshops served also as a collaborative stage for discussion among different stakeholders such as professors, students and researchers from three partnering schools.
The first workshop focused on setting a common vision of the core spirits and values of DF, the second workshop focused on people and practices, i.e. collaboratively identifying the key actors, the activities and work cultures. The third workshop focused on brainstorming spatial solutions. It aimed at planning, concretizing and prioritizing the activities identified in the previous workshop in the actual setting of the DF.

The workshops were inspired the design games approach (Brandt 2006) that has its roots in the participatory design tradition. They combined elements from board games such as game rules, turn-taking, game board, and playing cards. They also applied elements of make tools (Sanders and Dandavate 1999). Each workshop was an event for reflection and the outcomes were transferred, e.g. through the customized game materials, to the next event.

Figure 3. Outcomes of collaborative ideation in DF

Reflection

The DF workshops were facilitated and planned by design researchers who were also anticipated users of the setting. They called the workshops co-design workshops because of the application of design games methods and because the process aimed at design solutions in addition to collaborative envisioning. The facilitators also joined the teams along with the other participants as equal co-designers. The outcomes of the workshops, such as the spirit statements, the map of the actors and activities as well as the envisioned solution proposals were documented and reported to all the participants, heads of DF and the people responsible of the interior design (who also took part of the workshops). The process enabled people to share their ideas, express their needs and become familiar with each other and DF. The applied methods and materials aimed at supporting exploration and creative collaboration. How much the process actually influenced the final designs and the action plan of the DF has not been properly investigated. However, feedback from the workshop participants and the key persons is DF development, (as well end-users of DF) indicates that the value of the workshop was in the engaging process in which a number of players joined to discuss, learn, envision and plan together in a well structured but creative manner as

well as in the resulting report that has functioned as the reminder for further development.

CASE 4 STAGEING DESIGN COLLABORATION

The fourth case is about facilitating a process in which the aim was to streamline customer services. Three co-design workshops were organized with the aim of gathering people from a complex network of stakeholders together to discuss, plan and envision future service systems. The participants included people from a public organisation and its partners. The case is an example of a trend in which public organisations and individual service providers are learning customer-oriented service business. The transformation process requires facilitation in the learning of new attitudes and helping out of the box thinking in organizations. (Hakio & Mattelmäki 2011)

Figure 4. Design games as the platform for collaborative reflection

The workshops applied design games as a way to stage the collaboration. With the help of materials that were specially designed for the purpose such as game boards, game rules, human-figures the aim was to support collaboration, discussion, reflection and communication of how the elements of service experience are connected. Teams were mapping the existing practices, purposefully stressing the customer- or human-centered perspective and creatively seeking improvements. The organization had the responsibility of the implementation of the ideas.

Reflection

The co-design workshops were planned and facilitated by design researchers. The reason for calling them co-design is due to the design games method and the mindset of considering things that

do not exist yet. However, the outcomes were not really designs but rather a common understanding of the complexity and visions and ideas for the improvement.

The workshops were planned to trigger creative atmosphere, facilitate discussions within and among teams, as well as the development of the overall picture of service processes and how they interact with the customer's world.

The process resembles co-design as described by Daim project, i.e. staging temporary learning and experimentation events. The co-creation happens in the interaction among the participants. In this case designer's role was purely in the consulting, i.e. planning of the process, introducing and adjusting the tools and supporting of the mindset building. The continuity in implementing the initiatives was in the organization, the teams and individual participants.

CASE 5 INVOLVING USERS IN THE DESIGN AND DELIVERY OF SERVICES

The project Gettogether was conducted in 2009 by Participle (www.participle.net), a design company for public services, and the client was a governmental organisation in the UK. The aim of the project was to develop a service with a social component to enhance the lives of elderly people who are in social isolation and feel lonely. The designed service was a telephone group for having phone chats with other people who are also often isolated in their homes.

The project team approached the topic in various ways including interviews and spending time with several older people, caregivers and community workers. Equipped with the gathered understanding the project team developed several ideas which were then presented to the same elderly people for feedback.

As the concept was developed on the idea that users would also be part of the service production an experiential prototype as built. Through the pilot usage of the prototype the team was also able to observe how the elderly would use this service; what roles they took and how the filled in part of the service with their own needs and capabilities. The end result of the project was a report with the design of the service, a blue print and a business

plan for the social enterprise and how to set up the organisation.

Figure 5. One of the participants is reacting on the propositions for a new service presented in a brochure

Reflection

In this case users were involved in several stages of the service. They were visited, observed, interviewed about their everyday lives and some of them also gave feedback about the service ideas created by the design team. Furthermore, users also participated for two months in the experiential prototype usages of the service. The interesting aspect here is that the users had an important role in the content production of the planned service and thus their role was considered important in the development process. However, they had not been asked to step into the designer's shoes, use designerly tools, be creative or generate ideas in a design setting. Everything took place in their homes and their roles were to be themselves: everyday people.

The design process involved users and other stakeholders iteratively in many phases of the development process. The design responsibility remained in the design team however. The project team never explicitly used the term co-design during the project and in the documentation of this project. Is this co-design then? In our opinion it is. The developed service is also about co-creation in the sense presented: the user participates in the service experience.

DISCUSSION

This diversity of the cases above gives insight in the various aspects of co-design such as roles of designers, design researchers, users, and other

stakeholders. Designers facilitate and enhance the creativity of others, learn with and are inspired from other co-designers. These cases also illustrate how co-design can vary depending on the organization and the field of design. Co-design takes place in product design setting as well as in educational environment. There is also a great variety on how they are organized including the time span of the engagement and the phases of the development process. There are differences in the level of the contributions from end users and stakeholders. Moreover, all of the cases are built on a particular mindset that

1) emphasises that people, whether users or other actors, can be contribute to design when they are valued and they given the possibility. This has to do both on the empowering attitude but also in the idea of their valuable contribution through their own experience and expertise;

2) believes that the collective activity creates an exchange of ideas, collective exploration and learning that is more than individual reflection and;

3) concerns with envisioning and "what if" questions, i.e. it is not about understanding specific phenomena but aims at exploring and finding design ideas, reasons, problems and opportunities with the goal of change.

CONCLUSIONS

In the beginning of the paper we were lost in the terms of co-creation and co-design. Through literature review and case descriptions we have made landmarks into the map of co-X. We did not aim to one definition of the relationship of the terms but rather to clarify their use.

Every design process aims at exploring and finding design solutions. Co-design is a process and the planning, adjusting tools and facilitation is built on a mindset based on collaboration. Co-creation can take place within co-design processes but focuses much more on the collective creativity of involved users and stakeholders.

When looking from another perspective outside design research and practice co-creation appears as a bigger trend that deals with openness, collaboration and partnership. From that perspective co-design is among the practices in which co-creation is concretized.

In this paper we wanted to clarify the ambiguous uses of co-design and co-creation. This has been motivated by a desire to teach our students what the co-X tools are, but what to do with them and how they are constructed. For that they need to know that co-design processes asks for an open mindset of all involved people. Moreover, it is a fruitful but complex process that takes time and effort. Finally, the complexity (defining different roles, stepping in stepping out, and creating/providing the right tools at the right moment to the right people) of organising such processes asks for skills and decisions in the application of the tools. This is particularly useful when co-design approaches and design competences are needed in new application areas such as service design, transformation design or social innovations.

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