FRAMING INNOVATION IN CO-DESIGN SESSIONS WITH EVERYDAY PEOPLE.

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This paper presents how the framing of co-design events in the emerging field of User-Driven Innovation can be facilitated to deliver relevant design results. The new challenges stemming from the open design briefs are discussed in the light of a concept design project with ageing workers.

INTRODUCTION

This study is about the transition from user-centred design towards User-Driven Innovation, which is an emerging field of searching radically new design agendas. User-centred design has traditionally focussed on developing products, for example, computer systems, which have already been identified at the outset of the design project. Globalisation and increase of competition has put unforeseen pressures on companies to develop new strategies to cope with the rapid change in addition with the increasing complexity of product development. User-Driven Innovation aspires to develop methods for the contemporary challenges that organisations are facing.

The underlying emphasis in user-centred design is that of producing users with value. When products are useful, usable and desirable (see e.g. Jordan, 2000), products have potential to be inviting for the users, and thereafter, have the potential for being successful in the market. In addition to arguing the value of a product to be one of the key elements in successful innovations, Cagan and Vogel (2002) identify two other core elements; the identification of new product opportunities, and the integration of engineering, design and marketing. In this paper, we shall address the first two of these three core elements of successful innovations.

THE TRADITION OF CO-DESIGN

The term co-design was coined during the 1990s to refer to a particular stance to understand the relationship between designers and users. The term co-design emerged in response to the idea of participatory design to promote the users contribution to developing ideas together with designers, rather than being mere participants in someone else's enterprise. Co-design is thus based on the increasing tendency to see users as significant collaborators in professional design projects. Its roots lie in Participatory Design (e.g. Greenbaum and Kyng, 1991), and it promotes the importance of giving power to the real 'end-users' who will eventually use the designs in their work. Co-design also grows out of the field of Computer Supported Co-Operative Work (CSCW), which emphasises the close understanding of the situated social practices of users in informing the design of new systems (see e.g. Crabtree, 2002).

The collaborations of the people in multidisciplinary teams that were formed for working on design challenges were often strained by the differences in the professional languages of the participants and designers that came from diverse fields (e.g. Ehn and Sjögren, 1991). Understanding how people with diverse backgrounds may be provided with proper conditions for collaborative designing has attracted a substantial emphasis in the discourse within the participatory design field (Bødker and Buur, 2002). Muller (2003), for example, promotes the participatory design as a 'third space' that allows designers and users to build a shared area for collaboration, which fosters the negotiation of a commonly understood design language.

Design projects vary from updates to existing products to designing radically new products with no competitors or predecessors in the market. When design brief is as open as 'design new concepts to facilitate wellbeing at work', as in the presented study, this makes the ability of the design team to frame the design opportunities and concretise these into elaborated proposals the key to successful practice. As design grows towards the fuzzy front end of innovation the challenges are transforming from communication and collaboration facilitation towards understanding how to discover novel design opportunities with users.

TOWARDS CO-INNOVATION

Co-design has proven to be a very efficient in approach to design products that fit into users' practices (see e.g. Halloran et al. 2006). However, as these Co-design activities become facilitated in the early fuzzy steps of the innovation process, where the initial product ideas are to be formed, new agendas and new ambiguities are introduced to the user-focussed enterprise.

User-driven innovation serves a number of agendas for organisations. Keinonen and Takala (2006) speak about the emerging realm with the term Product Concept Design, and they have identified five novel high-level objectives for product concept design: 1) Concept design for product development, 2) Concept design for innovations, 3) Concept design for shared vision, 4) Concept design for competence, and 5) Concept design for expectation management. These overall aims of product concept design help to distinguish the activity from traditional product design. Moreover, the new agendas also underline the need for a new kind of understanding about design activity within the emerging field of User-Driven Innovation.

The open framing of the innovation projects has bearings on how design activities proceed towards producing concrete design proposals, or product concepts (e.g. Ylirisku and Buur, 2007). This makes the ability of the design team to frame the design opportunities and concretise these into elaborated proposals the key to successful practice. And, in the case of the extremely open brief, it introduces new challenges for enabling the participants to the process with relevant input. The core difference of the new realm of User-Driven Innovation with traditional user-centred design is the open design brief of the projects. At the outset of an innovation project, designers may not know at all what they are about to create. The product, system or service is completely undefined.

This outlines a novel challenge for user-centred activities, or more accurately, the events with the 'everyday people' (which is a term introduced by Liz Sanders (2006)). How can everyday people contribute to a project with an open agenda, and how can designers scaffold the everyday people when focus is yet uncertain, and framing emerging? Are the everyday people capable of producing material, which is both relevant to their work and to the aims of the innovation project? What aspects influence the relevance of the ideas? Is there any particular ordering of activities, which is helpful? At the core of these questions is the *idea of relevance*. How this idea needs to be understood in the case of innovation design to enable answering the above questions? This paper will outline the answers.

BACKGROUND WORK

The presented study is grounded in our earlier Luotain project (http://smart.uiah.fi/luotain/), which focused on developing new methods and tools for User-Driven Innovation with a special focus on user experience. The four-year project included in total seven different case projects, where a number of user-centred design methods, such as Contextual Design (Beyer and Holtzblatt, 1998), Cultural Probes (Gaver et al. 1999) were applied and new methods and theory was created, see e.g. Design Probes (Mattelmäki, 2006) and video-based design methods (Ylirisku and Buur, 2007). The case studies involved collaborations with a large number of industrial and design organisations (in total 10 companies were involved).

Important background work is conducted in the connection to academic education at the School of Design at the University of Art and Design Helsinki. The

User-Inspired Design course, which is an annual master level course at the School of Design, has pioneered developments in the emerging field of user-driven innovation already through a number of years (see e.g. Mattelmäki and Keinonen, 2001).

THE ACTIVE@WORK PROJECT

The presented study, Konkari, was part of an EU-funded project named Active@work, which aimed to co-develop alternative working arrangements to improve individual's well-being at work with ageing workers' (over 55 years). The two-year Active@work project included sub-projects in Germany and Italy, which focused on developing generic statistical and organisational methods for sustainable age policies at work. This paper describes the part of the Finnish sub-project, where new ideas for ICTs were co-designed with users. The field study was conducted by researchers at University of Art and Design Helsinki during 2004-2006 with fourteen ageing workers (aged 52+), who were employees of Palmia, a company owned by the city of Helsinki. The participants worked in the fields of cleaning and technical maintenance.

The process is illustrated in Image 1. Konkari project started in December 2004 with a literature study and interviews with managers at the employer organisation of the participating workers. This was followed by a Design Probes study (Mattelmäki, 2006, originating from Cultural Probes, Gaver et al., 1999) in spring 2005, which was complemented with interviews of the individual workers and collaborative interpretation events with the workers and designers. The material was interpreted into persona descriptions that are synthesized presentations of the workers (see e.g. Cooper, 1999, Pruitt and Adlin, 2006). These included photographs of the spaces and tools, maps of social relationships and interactions with various collaborators in different locations, tasks and maps of physical locations of work, explanations of the workers' attitudes towards technology, tools and teamwork. The persona descriptions were utilised to ground collaborative ideation in a workshop with the workers, their managers and project collaborators from the partnering organisations (read more in Mattelmäki and Lehtonen, 2006).

During autumn 2005 video observations and Situated Make Tools (Ylirisku and Vaajakallio, 2007) were utilised to complement the earlier phases and to enable the study of the living work practices of the workers. Situated Make Tools is a method for enabling everyday people to express their ideas and dreams through tangible and easily configurable mock-ups of potential shapes for products. The Situated Make Tools method is developed on Make Tools (Sanders and Dandavate, 1999), and it takes the shapes that people create into the working situations of the people to verify, discuss and elaborate the expressions of the ideas. The video materials that the observations and Situated Make Tools studies provided were collaboratively interpreted utilising the Video Card Game method (Buur and Soendergaard, 2000).

RELEVANT OUTCOMES

The project resulted in a wide variety of ideas on several development agendas. Altogether, when redundant ideas are removed, the number of different kinds of ideas was 165 in the whole Konkari project. The main areas of the ideas were: spaces, physical tools, ICTs and social innovations, such as senior club, apprenticeship policies, and solutions for manager employee relationships. Some of the ideas are depicted in Image 2.
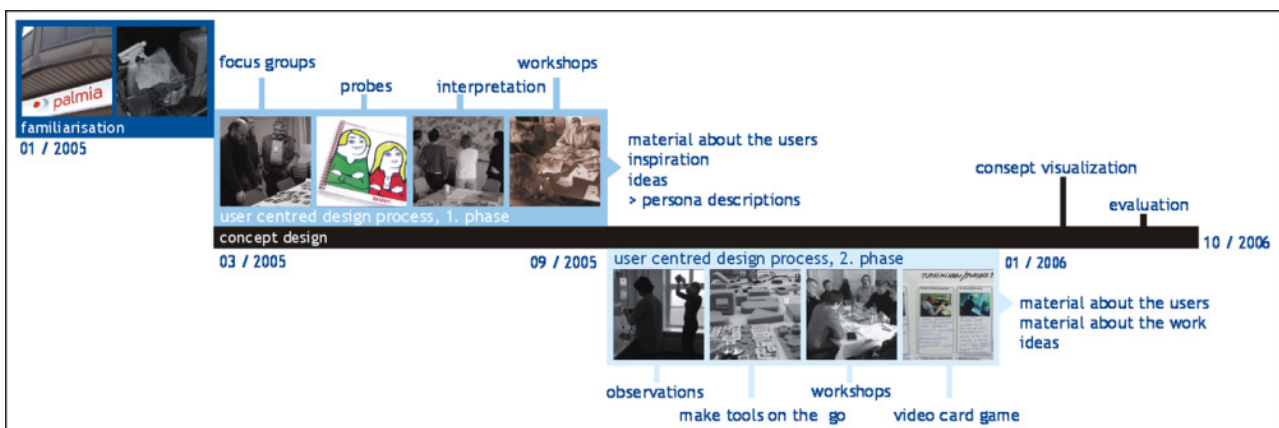

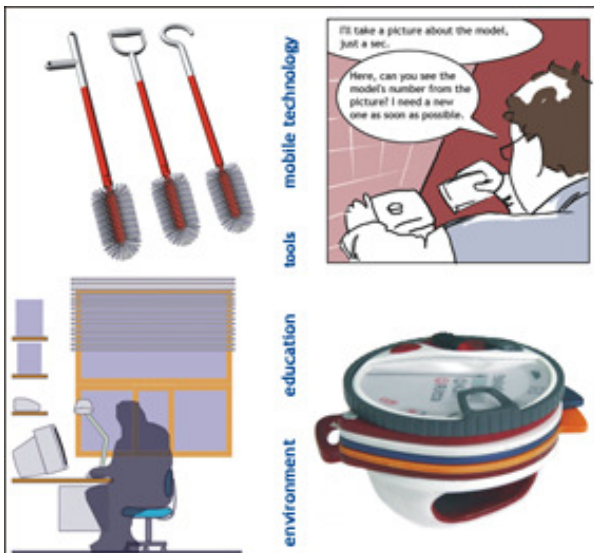Image 1: An overview of the activities during the two-years of Konkari project.

Image 2: Example illustrations of product concepts that were created in the project.

These ideas emerged in the dialogue between the ageing workers, their environments, tools and situations. The ideas were presented in combination with drawn use scenarios, which were drawn based on the video still from the observation studies. These scenarios helped to convey the value of the ideas to the participants of the evaluation workshop. All of the ideas were based on the materials that were created or collected during the user site visits, whereby, they were grounded in real user practices.

The ideas for novel ICT solutions to facilitate wellbeing at work were evaluated by the ageing workers and their managers in a workshop in 2006. In total 5 different product concepts that integrated various ideas into concrete whole were presented and discussed. The concepts did not introduce radical new technologies that would be years ahead, instead, the ideas were based on designers' understanding of current mobile appliances, and the ideas were easily understandable with the reference to mobile phones and palmtop computers.

As a result, none of the ideas was conceived as irrelevant, or needless. All were perceived to contain desirable and needed features. Some of the ideas were discussed to be possibly integrated into current mobile phones, such as the idea of work task planner. The integrated service ideas, which were build on the utilisation of mobile imaging, were considered so interesting that one of the managers proposed a new project to be established for the development of solutions based on this. This would fuel the development of the organisations mobile 2015 vision.

But, how did the designers frame the co-design events to produce these ideas, which were considered relevant by the managers and the ageing workers? At the centre of this effort was the Situated Make Tools part of the Konkari project.

Image 3: Illustrations of a product concept that is attached to an arm.

THE SITUATED MAKE TOOLS

The Situated Make Tools method is based on the assumption that by enabling people to design things in the midst of their activities will help them to build highly relevant ideas (Ylirisku and Vaajakallio, 2007). Also the tangible expression of the ideas and dreams aims to facilitate the situated reflection, working as 'things-to-think with', as the character or tangible mock-ups is expressed by Brandt (2006). When the ideas are created by the everyday people in their real environment, during their usual activities, contextualises the birth of new ideas to their practices as closely as possible.

The Situated Make Tools part of the Konkari project focussed on enhancing wellbeing at work with mobile digital appliances. The study included an observational part to establish a view into the normal work practice to support the broader design aims of the project. On design agenda, the Situated Make Tools study aimed to create concrete and relevant-to-the-worker design ideas expressed in physical, narrative and acted-out formats, and develop insights into the workers' needs, desires and attitudes relating to digital information and communication technologies, (ICTs). On the research agenda, the project aimed at exploring how the real-action context triggers, and serves to ground, inspiration

for concept design, and gaining experiences in how Make Tools function when used in the midst of everyday activities with ageing workers.

FRAMING DESIGN DISCUSSIONS

Before the Situated Make Tools study, the project had already numerous events with the workers (see the process Image 1). These activities included, for example, the application of Design Probes, which have the power to sensitize people to the issues raised in the Probes kits (Mattelmäki, 2006). Hence, these earlier phases already helped to enable the ageing workers to think of the issues relevant to the project, and to watch their own work and wellbeing with new eyes – looking for issues that influence their wellbeing at work. Besides that, the participants already had met us, and were also familiar with our approach to take them as active participants in the designing. These facts helped us to move towards the co-design events at the workplace.

Before entering the workers' site, we created and pilot tested the make tools kit (presented in Image 4). It included different shapes of blocks covered with fabric suitable for use with Velcro. The kit also contained various pieces, such as buttons and displays, with Velcro tape to enable the easy attachment and configuration. We then contacted the study participants and asked them to bring along a digital tool that they normally utilise in their work. The time for the site visit was left for them to decide to emphasize the meaningful moments from participants' perspective.

Image 4: The Make Tools kit.

At the beginning of the two-and-half-hour site visits, we introduced the agenda of the day and the aim of the study. We then asked the workers to think of possible situations, where they normally utilise their digital tool,

which they had brought along. This tool was usually their mobile phone. The challenge was to enable the ageing workers, who use digital technologies rather little, to think of possible and relevant new uses of technology. This exercise aimed to provoke imagination towards opportunities by pointing out features and uses these devices currently have. The workers explained the ways they use their digital products and told stories about their recent experiences with their tools. Memories evoked new ideas related to the real situations.

After this discussion we introduced the Make Tools kit. We gave the workers following instructions: "Build a tool that either helps you work more focused or feel better at work." We asked them to explain each feature they added to the design and imagine a specific purpose in a certain situation where it might be helpful. E.g. a woman from cleaning maintenance saw 'a lens' in the kit. That led her to add removable 'mini camera' which measures dust, to her envisioned tool. She explained that it would be handy at quality checking the work of the ones under her supervision. She also stated that the camera lens should be removable enabling placing it in various locations such as on top of bookshelves.

In this phase, we proceeded very slowly to allow the worker to take the time needed to think about the work from this given perspective. After the tool was ready, we moved to the action phase. We instructed the user to work as normal as usually. We explained that on certain moments we would interrupt the action, and that we would have a little 'thinking bubble' moment to reflect how the situation could be enhanced with the envisioned tool. The worker carried the Make Tool while doing the work, and we (designers) carried the Make Tools Kit to enable recasting the form if new ideas would occur. We instructed the workers to use their tool in their work in any time, if they found it appropriate.

We interrupted the action for thinking, whenever we found that helpful. This 'thinking bubble' moment was aimed to help thinking the Make Tool in relation to the real activity, and how it perhaps could enhance the situation. We also facilitated the thinking by questions, such as "Could you tell me what just happened?", "Could you image doing the activity in some other way with your tool?", "How would it work, if it could help in this situation?"

The amount of interruptions and the character of these varied much across site visits. This was especially due to varying information needs of the workers. In cases where

no need for the mobile tool was revealed by the observed activities, we asked the person to explain possible reasons why the tool could 'beep' now. Sometimes we saw the 'tail' of a task instead the actual action. For example, at one of the site, we saw the worker writing an order for repair service as a response to a certain incident that had occurred earlier at the school. At one site the worker had already "done everything ready" before we arrived to help us with the study, whereby we had little to observe during the visit. In this case we went through the artefacts that were on the worker's desk. This proved to be a surprisingly useful strategy for the project's purpose.

We discussed if similar functionality would be helpful in the tool, and if so, asked participant to act out or describe in detail a possible use scenario. E.g. a woman from cleaning maintenance, who at that time worked as a supervisor, told us a story evoked from the calendar and notepapers on her desk. She described how she would need better information flow outside the office when she has to do quality control checks on sites around city. This led her to think desired features or services such as easy access for contact information, description about the site, up to date contract, interactive map which shows her own location in relation to target, instructions about the nearest and fastest transportation to get there and so on. She also acted out how the envisioned tool would work in these situations.

After the observation part of the study we conducted an interview with the workers. It focussed on building a better understanding of the work activities, and the workers' attitudes towards new technologies. In this interview we utilised digital still photographs that were captured from the activity, which we had just observed. These helped to enter the situations again and develop an understanding of these situations as perceived by the worker.

A DILEMMA OF RELEVANCE

For a design project with the extremely open brief to focus on wellbeing at work, everything that affects wellbeing at work is potentially relevant in the start. However, to create any concrete proposal, the design challenge needs to be framed. Based on the interpretation of the probes-materials, the presented project focussed on four key areas: physical tools, spaces, information and communication tools, and social innovations. What is relevant for designing ICTs for ageing workers? This is already a rather much more

precise question, which enables designers to create an orientation and focus to start explore both users' reality and the ideas about design potential.

The presented case exemplifies a situation, where designers do not know what they should start to build, nor the user practices that become influenced by the designs. We understand design as the intentional activity to change situations into preferred ones (as defined by Simon 1996). These changes are mediated by the introduction of products, which may be appliances, systems, or services. This definition of design puts focus on the *situated character* of human-product interaction in people's everyday settings, as well as on the *judgement* of the perceived change that the products mediate. This presupposes that designers need to frame both a way to impose a change into a situation and to perceive the effects of this change in order to judge whether the change moves situations towards a preferred state of affairs.

The dilemma of relevance is on one part similar to that of distinguishing between context and focus, since the evaluation of the relevance of something presumes the existence of the something against which it is evaluated. Goodwin and Duranti (1994) argue that the term *context* is a very challenging one to give a single, precise, and technical definition, and that it may be even impossible to create such. Already the great variety of the meanings how the term is utilised across fields supposes that a single definition might be insensitive to its applications. However, Goodwin and Duranti (1994, pp. 4) outline that: "A relationship between two orders of phenomena that mutually inform each other to comprise a larger whole is absolutely central to the notion of context (indeed the term comes from the latin *contextus,* which means "a joining together")".

Context and focus are intrinsically linked. The dilemma of settling what is the relationship between the focus and the context is known also in other fields than User-Driven Innovation. For example, Anderson (1994) called the context-focus issue the "synecdoche problem of cultural forms" within ethnography. Anderson (1994) states that for understanding the meaning of part or item it must be seen against the backdrop of the whole domain, and the whole is constituted through the arrangement of its parts. Thus, separating a part from the whole establishes an apparent paradox. It is similar to the dilemmas of indexicality in linguistics, frames of meaning in hermeneutics, and contextuality in a variety of fields.

In the field of user-centred design context is often utilised in reference to users' environment, activities and artefacts. For example, the ISO 9241-11 standard (1998) defines context of use as "users, tasks, equipment (hardware, software and materials), and the physical and social environments in which a product is used". Preece et al. (2002, pp 207) speak of 'context of use' and 'environmental requirements as synonyms, which refer to "the circumstances in which the interactive product will be expected to operate". These definitions are implicit about the fact that it is the definition of product that outlines its context. The activity of defining the product and its context is a process called *framing*. The framing defines the border between the focus and the context.

Schön (1987) observed that framing is dependent also of the one making it. He argues that "when a practitioner sets a problem, he chooses and names the things he will notice", and that people will create different framing depending on their "disciplinary backgrounds, organizational roles, interests, political and economical perspectives" (Schön, 1987, pp. 4). Similarly the framing of the product idea and its context are dependent on these aspects of designers and the others involved in making the framing.

FRAMING MOMENTS IN THE PROJECT

Three example situations are described to illustrate how the co-negotiation of the ideas with the Make Tools were framed. The first example shows the beginning of a Situated Make Tool study visit. The example is an excerpt from the design of the new kind of tool, which is primed by a discussion about the workers use of his mobile phone.

EXAMPLE 1: BUILDING THE TOOL

(Start of transcript)
W = Worker, D1, D2=Designers

W: "I would like that we all would be connected to each other all the time, the group of people who work here in this team."
D2: "What would it be?"
W: "Well, it should be easily carried along, something which is attached to clothes in some way (shows his working vest)… so we would have some working clothes something like this (shows again his vest). When I put this on I will be connected to the whole group. And when you put the cloth on, others see that you are at work.

Image 5: The worker constructing attaching a Make Tool display to his sleeve.

D2: "You mean some kind of 'smart vest'?"
W: "Yes. It should be easy to use. When you put it on it activates…
D2: "how you contact others?"
W: "Good question... for example, some surface attached to your sleeve (puts flexible make tool shape around his wrist) and it would display the names. No buttons just speech. I would say work mate's name and it takes contact."

… (The worker builds in more stuff) …

D1: "What did the last button mean?"
W: "This is it that you don't have a display. And you haven't got a keyboard… We are not limited to… So, that there is 100 000 phone calls to wrong numbers. It is probably 100 000 phone calls annually that people dial wrong numbers. The phone companies are delighted for these buttons."
…
W: "We could completely move into a keyboard-less reality. So that you could control with speech."
(End of transcript)

The example shows how the designing was framed by the earlier discussion about phone use. It was also framed by the physical shapes that suggested ideas for new forms of a tool. Moreover, the clothes of the worker suddenly formed part of the framing of the design moment as well.

After this design moment we moved to the working phase. After observing a phone call situation, we stopped the activity by saying "And now a break for ideation!"

EXAMPLE 2: THINKING BUBBLE

Image 6: Thinking bubble for co-designing based on the phone conversations during a car drive.

(Start of transcript)
W = Worker, D1, D2=Designers

D1: "Could the device help in the phone call that you just had? Could the issue be handled with your new tool more easily?"
W: "Yes, of course it would be a lot more easier with this kind of tool… a lot easier… to have the connection."
D1: "How would the interaction go with the tool?"
D2: "Could you act out how you would use it?"
W: "I would press the button on my vest, and then would look here (points to his raised hand), and I would say "Hi, colleague. We will get some working clothes in the afternoon." And, the colleague could reply if it is ok or not.
(He stops for 2 seconds)
W: "Now I would need to press here… and, as we just saw, the phone connection is very poor here."
(He stops for 3 seconds)
W: "But it could be fast. For example, if I raised my hand like this (raises his right hand) it would go into standby mode. Then I could just say to whom I am calling."
(End of transcript)

The example illustrates how the situation was framed intentionally entering the real work activities. The pausing of the activities framed the moment to discuss the relevance of the phone idea that the worker had developed. The questions focussed the reflections towards developing the idea forward. And the acting out also made the worker to refine the idea.

After some half hour observing we had a car drive to a nearby location. The worker had several phone calls during the drive considering issues relating to the work-presence of some of the colleagues of the worker. The following example illustrates how the thinking bubble moment after the driving functioned to develop the idea further.

EXAMPLE 3: RE-THINKING BUBBLE

Image 7: Thinking bubble for co-designing based on the phone conversations during a car drive.

(Start of transcript)
W = Worker, D1, D2=Designers

(After a phone conversation during a car drive)
D2: "How would you have done the call with your tool?"
W: "It would have been much easier. I would have just connected like this (raises his right hand)."
D2: "What if there is no-one answering? Or, if the person does not want to be reached?"
W: "There is the good aspect that you can see if someone is present. With current phones, if you switch off the phone, you cannot know if you are at work or not. But, now with this new tool as the person dresses this new vest (this is his Make Tool idea), it will register that the person is at work. Then we can see that this person is at work."
D1: "Could the communication during the driving be made easier?"
W: "Of course, if … if we would have better phones. Such, where you just point and click a name."
D1: "How would you have dialled the call in the ideal situation if you consider these couple of phone calls that you made in the car?"
W: "If I could open the line by speaking. It would be a lot easier. …
W: "With the person I justed talked with we make many many calls during the day. Considering issues such as people are not present. Or, a client calls about an urgent situation."
D2: "How would you have answered the call?"
W: "In the same way (he raises his right hand)."
D2: "Would you see, who is calling?"
W: "Of course. Then I would know immediately what kind of call it will be. (1 second pause) But, you could not hide from the callers. Especially, if there is a need to call an annoying phone call to ask, where you have been. People often hide from these calls."
D2: "So, this would help you reach these people?"
W: "Yes, I could see that they are at work."
D1: "What kind of situation could be this kind of 'annoying' call situation?"

W: "If a client calls that there has not been a worker at the agreed moment. Then we call to ask the explanation. Why some task has not been done."
(End of transcript)

The example shows how the phone conversations helped to frame the discussions about the features of the phone idea. It also highlights how the worker intuitively responses to some questions before thinking how the product would actually serve the purpose that he says it should support. The idea about seeing who is calling exemplifies this. It also illustrates how the discussion of the features is grounded in the framing provided by the interrupted work situation, i.e. the discussion is heavily focussed to explore the ideas in relation to the issues surfaced in the conversation about the content of the phone calls. These facts help to ensure that the ideas actually become relevant for the work.

DISCUSSION

The presented study displays how the User-Driven Innovation can be systematically framed with a structured procedure, physical provocations (the Make Tools), and by the intervention into the real work situations. It illustrates a case where new product concepts were developed by co-designing the ideas with the potential users of these.

The study highlights also the new challenges related to User-Driven Innovation. These are fundamentally about the framing of the ambiguous design opportunities as well as framing a focus upon the work practice of the users. The difficulties in writing this paper to explicate, what parts of the above example are about *focus*, which exemplifies *relevance*, and which helps to understand *framing*, proposes that these concepts need to be refined to better understand the fundamentals of User-Driven Innovation.

Based on the experiences with Situated Make Tools it seems the discussion becomes grounded in a variety of issues, both in the participants memory, and in the physical aspects of the situation. For example, in some phases the discussion was apparently about what had just happened. Other apparent anchoring points for the discussion were the memories about the functionalities of current tools, for example, the visibility of the caller in current mobile phones. Also, the fact that the worker had brought the phone initially to the discussion grounded the development of the ideas strongly towards a new kind of phone.

During the interventive approach the designers could point new points to reference in the discussion by asking concrete questions, such as "Could you act out how you would use it?" Such a question led into a response of the worker, which resulted in a new kind of framing of the product idea – it should perhaps work differently.

What we also discovered during the study was that the discussions in the co-designing events seemed to unfold on different 'layers of reflection'. For example, the discussion about the procedure for answering a call developed during the discussions. In the initial designing situation the idea was about being connected to the whole group, and the discussion focussed on the overall form. The later discussion moments carried along these aspects, but the reflection built on top of this understanding.

This paper presented how co-designing events in the field of User-Driven Innovation can be framed to support users to contribute with relevant input. Essential to the presented approach is the understanding of the dynamic relationship between context and focus, and to develop a proper framing of the design idea and the related context that justifies it. How the layering of the reflection unfolds, how it relates to Schön's (1987) idea of 'ladder of reflection', and how the referencing functions in the social interaction of these situations will need more research and comparison across the various user sites that were studied during the project.

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