

The scene of experiences

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Abstract

Luotain - Design for user experience is an ongoing research project at the University of Art and Design Helsinki UIAH. Project's objectives include developing user centred methodology and understanding for design for user experience. The notion of user experience is wide and can be examined from many different angles. In order to understand alternative user study methods, and how they are able to illustrate the perspectives of user experience, we have studied several approaches that are related to the phenomenon. These approaches enlighten the issue on a general level or are too focused. Also, they are not practical enough from product design and concept design point of view. To develop methodology for user-centred concept design, a holistic picture of the issues related user experience is needed. In the paper we present a new framework of user experience dimensions. The framework is drawn from comparing and connecting existing models and is based on previous work in Luotain project. The dimensions that have a role in the scene of experiences consist of the human perspective, the product meanings perspective, the activities perspective, the physical world perspective, the products perspective and finally the design perspective.

Introduction

Luotain - Design for user experience is an ongoing research project at the University of Art and Design Helsinki UIAH (<http://smart.uiah.fi/luotain>). Project aims at supporting user centred concept design in the context of product design. The objectives include developing user centred tools and understanding for the design for user experience. In this project several user study cases have been made with using several techniques to get experience and understanding about how different tools are able to get hold of the user experience.

Usability emphasises the user's goals as the central entities which the product should support efficiently, effectively and satisfactorily (ISO 9241-11 1998) Although the meaning of user's goals is essential to usability, the goals themselves have been vaguely defined. In addition, the subjective motivations or contextual factors haven't got much attention. In the usability view the user is not seen as a feeling actor and user's pleasure is measured by satisfaction, or more precicely by the lack of displeasure (Jordan, 1999), and experience related feelings like delight have no role.

The design for user experience goes beyond usability. It sees the user as a human being and the human's motivations or reactions to these experiences are not merely practical. There are a wide range of other important dimensions which should be defined and separated from

user's goals. Design for user experience seeks to understand and fulfil also the human user's deeper motivations.

Although the motivations are not always practical does not mean, however, that the design for experience is related to ultimate once-in-a-lifetime-emotion-filled occasions. Rather, it takes into account little or bigger delightful experiences in life. In design for user experience the essential is not what is needed but what matters. (Fulton Suri, 2003)

Fulton Suri and Buchenau (Fulton Suri, Buchenau, 2000) presented an example of the experience of a run down a mountain on a snowboard. They described details about the different aspects that affect the experience such as the weight and material qualities of the board, the bindings and the boots, the snow conditions, the weather, the terrain, the temperature of air in the hair, the skill level, the current state of mind, the mood and expression of the companions.

The example presents the *situational context* of the run down the mountain in isolation from the culture the person is living in, and doesn't tell about a person's motivation or concerns in skiing. In Luotain-project, we did a case study related downhill snow sports on freeride skiers in order to understand the phenomenon and to discover product opportunities for concept design. We found the skiing experience much more complex than the skiing activity seen in isolation. The experience of coming down the mountain is heavily dependent on the culture a person is living in, the situational context and a person's attitude towards skiing.

To develop tools for user-centred concept design, we need a holistic framework to understand factors that affect the user experience. There are several approaches that illuminate the user experience. (Desmet, 2002; Folizzi, Ford, 2000; Hummels, 2000; ISO 13407, 1999; Jordan, 1999; Kankainen, 2002; Battarbee, Mattelmäki, 2003; Sanders, 2001) We have found that the existing models are either too general, theoretical or have a too limited focus to be used as a practical tool in product design and concept design context. In this paper we present a next phase of the framework of perspectives of user experience. (see Jääskö, Mattelmäki, 2003) The perspectives are illustrated with examples from user study cases. In following we present relevant point of views related to the framework described later in the paper.

User experience

"The experience with even simple artifacts don't happen in a vacuum but, rather, in dynamic relationship with other people, places and objects. Additionally, the quality of people's experience changes over time and it is influenced by variations in these multiple contextual factors." (Fulton Suri, 2000)

Experiences happen in a scene of various dynamic aspects. Some of them are related to past experiences and are personal. Some of them have social and cultural qualities. To make the design for user experience even more challenging, experiences develop over time.

The moment of an experience is affected by the past memories but also linked to the dreams and imagination (sanders). Past experiences and associations are reflections of people, places or memories. These can be very subjective and thus, not easily designed or even affected by the design of an product. The emotions that products elicit are related to people's subjective concerns. It is not possible to predict how personal associations are made and how meanings of products are understood. To be able to create a product that enable the desired emotional

effects, designer should know the concerns of the person, who will use the product. (Desmet, 2002)

Meanings, experiences and meaningful relationships with products are developed over a time span and they are often related to life situations. (Battarbee, Mattelmäki 2003) Forlizzi and Ford (Forlizzi, Ford 2000) have presented a model of user experience which takes into account the temporal context. A cognitively challenging interaction can become subconscious over time. A subconscious experience can become a meaningful experience when verbalised and narrated. This kind of ongoing dynamics has an affect in the holistic experience.

Pleasure in relation to products opens another perspective to the the user experience. (Jordan 200x) Pleasure can be reflected through body and senses. Products can play a role in social relationships with other people. Cognitive and emotional experiences affected by a product can be pleasurable, also positive experiences can be achieved by reflecting people's values in products. Also, co-experience, the social user and creativity in use are relevant issues to the notion of user experience. (Battarbee 2003) This perspective sees the user, not as one entity, but as a group of people creating and sharing experiences using the product as a facilitator in the interaction.

The experience is affected by other products as well. The user is not comparing only the features of competing products but might make appraisals and decisions according to personal motives (Gabriel, Lang xxx). This comparison is based on available product offer. The products seem to fight for their place in the household similar to flora and fauna in the nature. (Pantzar, Nieminen-Sundell 2003) It is not a question only about similar products or competing products but about complex relations and symbiosis that affect the purchase decisions and using experiences.

The Framework: the scene of experiences

The following framework is in progress and based on Luotain-project's current understanding (Jääskö, Mattelmäki 2003). In the framework the different dimensions that affect the user experience are highlighted. The framework can be understood as a tool to study product related experiences and as a process model for user centred product concept design. As a product experience model it presents the qualities that matter and the role of a product in the whole. As a process model it presents the different dimensions that should be considered during the product concept design process and it also suggests, what kinds of methods should be used to study a certain dimension of the whole.

The framework is product centred in a sense that the design is placed into the middle. This is in line with the designers' way of thinking about the experience, in which the desired product attributes are results of or inspired by user centred process.

The division into different dimensions is theoretical in the sense that, in reality as people experience the products, the dimensions of experience are mixed and form complex network of relations with each other. Therefore, it is difficult to be able to clearly divide them into separate categories.

The framework is aimed to be a concrete tool for designers and design consultants. It is supposed to help them to talk about the user experience in a useful way, and understand the different dimensions that should be considered in the user centred product concept design

process and the qualities, that play a role in the way that people experience products. The idea in concept design context is to look for design opportunities from the scene of experiences.

The framework helps in checking that all meaningful perspectives have been taken into account. It also clarifies that using only one approach or one focus in user studies might not be enough in revealing all the relevant aspects needed for designing for user experience. (Kankainen 2003, Sanders 1999) It facilitates the selection of methods and tools to use for finding out what to look for and how to represent the findings in a design process.

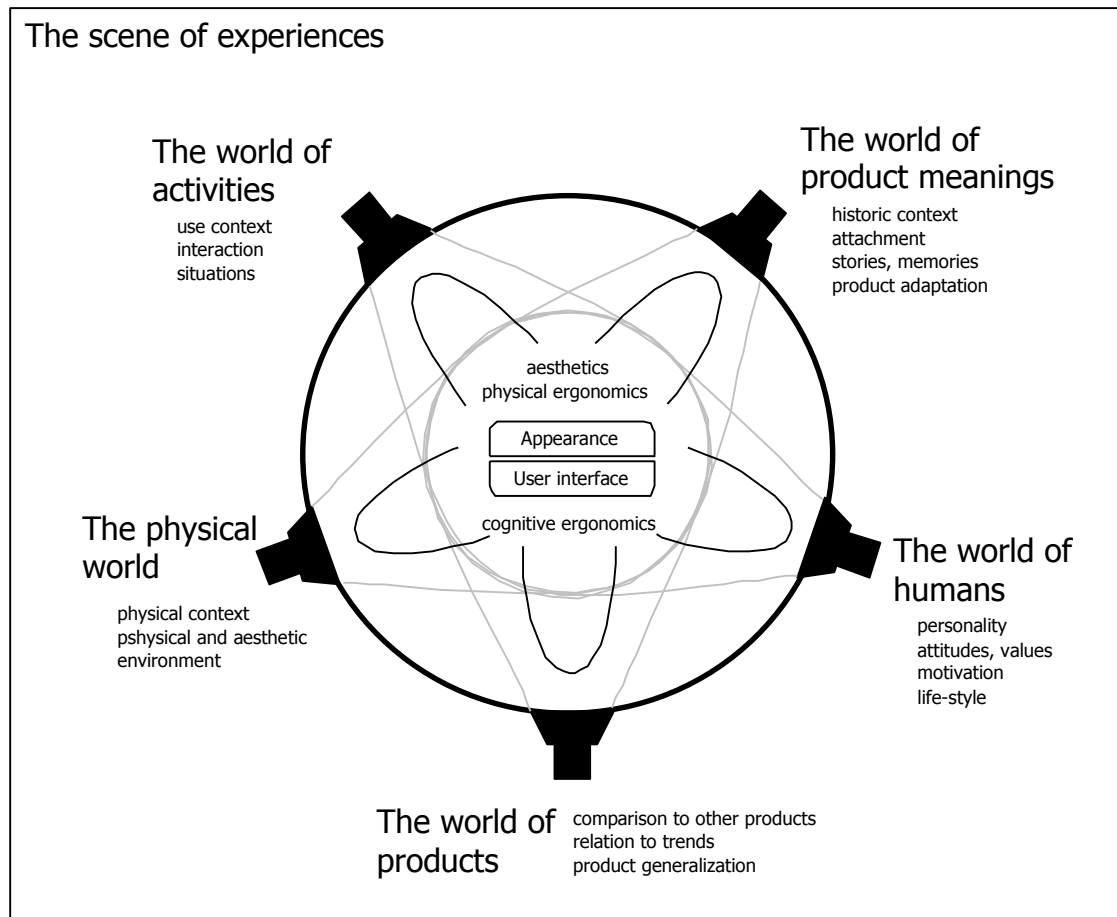


Figure 1. The framework of scene of experiences (based on Jääskö, Mattelmäki, 2003)

The framework as a model of product experience

The world of humans

The world of humans is about people's personalities, attitudes, values, motivations, life-style and past experiences. It sees the people as humans, who are social, who experience things together, who are sensing and emotional beings. These aspects can be studied using e.g. interviews, probes, collages and observation. The world of humans can be represented in the design project e.g. in the forms of personas, attitude descriptions, personal goal descriptions, stories, videos and photos.

Knowing the world of humans is essential for creating solutions, that fit into people's life-style, support their values and social status, are in line with their attitudes, are motivating and respect their past experiences.

In the downhill snows ports case in Luotain-project we used probes and observation to study the world of humans. Collected data was interpreted into the form of cultural themes and personal attitudes. The personal attitudes were described in attitude descriptions, which were presented in the form text, images and videos. They contained information about people's personal values and their personal goals in the skiing culture. E.g. there was an authoritarian and photographic attitudes. They see the activities related to skiing quite differently. While photographer's most important value was visual beauty, the other valued the status of natural authority. Revealing these attitudes helps in understanding their values and deeper motivations in skiing in order to design equipment accordingly.

Through these techniques it was possible to draw rather holistic and vivid picture of this sports culture. After having identified the most important values for the different personal attitudes, it was quite easy to find out the most important practical goals that support the particular personality.

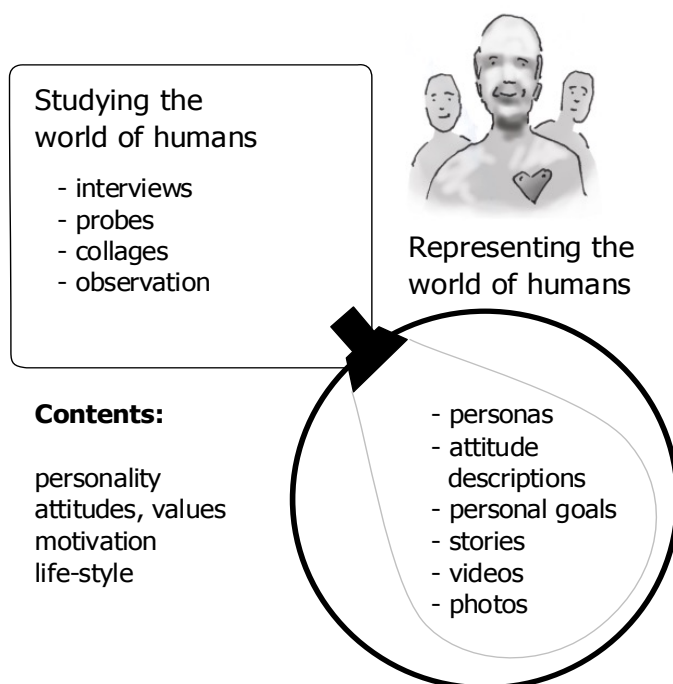


Figure 2. The world of humans.

The world of product meanings

The world of product meanings is about the roles that products take in peoples' lives. It is about the historic dimension of the use and the owning of the product, about the product attachments and stories reflecting these memories. The world of product meanings can be studied by e.g. using storytelling, interviews, collages, role play and product personality assignments. To understand this dimension, it is useful to know how things used to be before, how things have been changed and what has changed them and why. It is important to respect the history of products, since some products are the result of an evolution of a long history.

Collages and stories can be a tool to get meanings verbalised and documented. For example products that support self expression and social interaction and have memory for saving experiences, such as cellular phones, may become meaningful to the owner because of the saved messages or names and contact information of the loved ones. Some products may touch more generally our memories and associations of past. Ivana of Helsinki- a new clothing brand – uses textures which are currently trendy but also touch our memories or associations from the 70's. The similar phenomenon can be seen with again so popular Marimekko fabrics and clothes.

In downhill snow sports case the stories were told in the diaries and during the observation study. The history of other products revealed the attitude towards the reliability of products. E.g. a story about a telescope skiing pole gave us the understanding, that if product fails once, it is no more trusted and may be rejected.

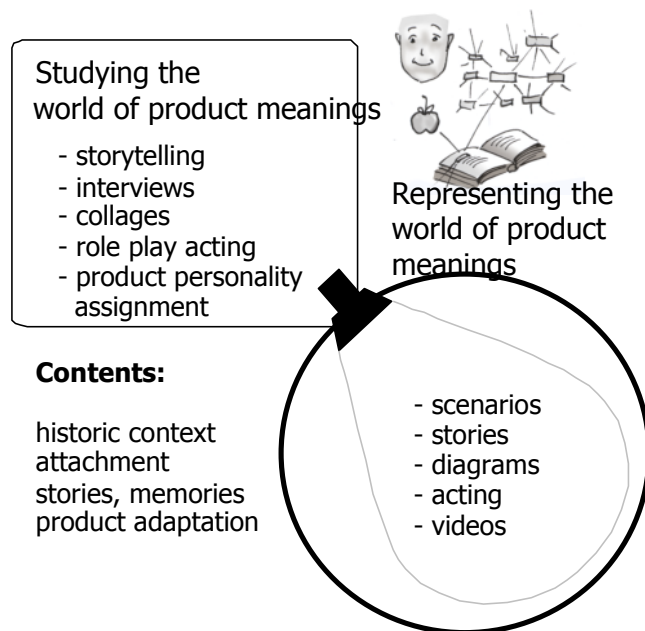


Figure 3. The world of product meanings

The world of activities

The world of activity is about interaction, tasks, actions, situations and practical goals. The focuses on how things are done, what happens and how people interact with people, places and objects. The world of activity can be studied e.g. using observation, shadowing, interviews, think aloud protocols, role play and through experimentation with prototypes.

In the downhill snow sports case user data about activities was studied by using maps, diaries, self photography and observation. The activity was presented in activity scenario, which contained images, text and video. The activity was divided into different phases such as preparation, transportation and ascending and skiing activity.

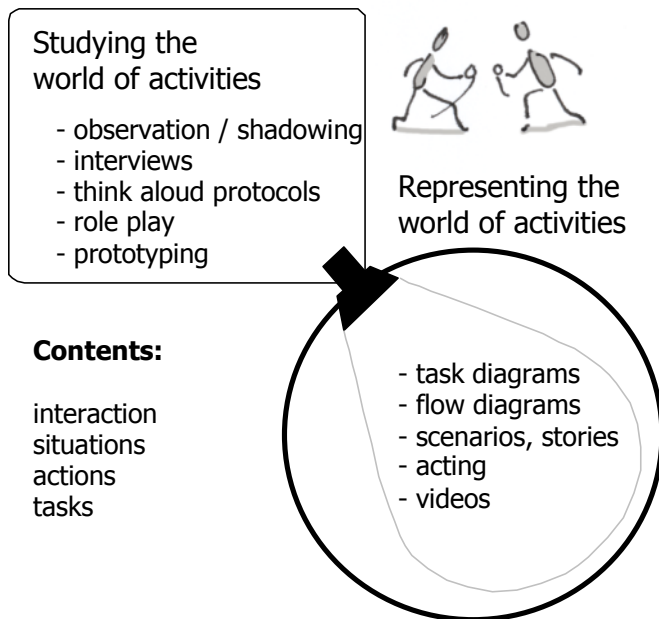


Figure 4. The world of activities

The physical world

The physical world is about the physical qualities and conditions as well as the aesthetics and atmospheres of the environments. The physical world can be studied e.g. by self-documenting, observing and video or photograph documenting.

In the downhill snow sports the physical environment was studied by using map tasks, observation and video documenting. The interpreted outcome was presented in the form of maps and videoclips. The representations described the places showing the conditions that exist in the mountain environment. The data contained material about the professional equipment and the enjoyable atmosphere of the social scenery. The study of physical world may produce a variety of useful data varying in scale and detail.

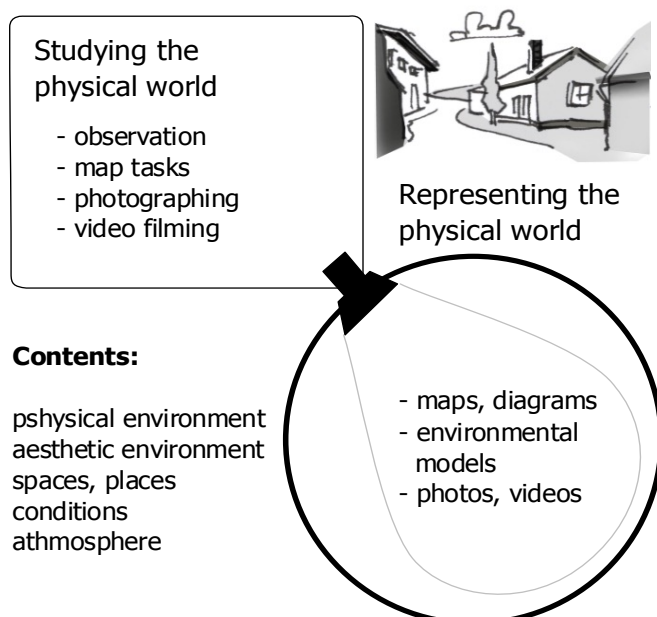


Figure 5. The physical world

The world of products

The world of products is very much about the product novelty, how advanced the product is from user's point of view. It has to do with the desirability of the product, which is a mix of different qualities such as aesthetics and style, technological level, product features and in generally how well the product fits into the contemporary trends. It is good to notice that product purchase is usually based on available product offer and therefore in relation to other products in the market. These issues are heavily affected by marketing communication and advertisement. The world of products can be studied e.g. using interviews such as focus groups, immersion (i.e. trying out oneself), literature studies, collages and observation. The knowledge can be represented e.g. in the form of imageboards, -chart and scenarios.

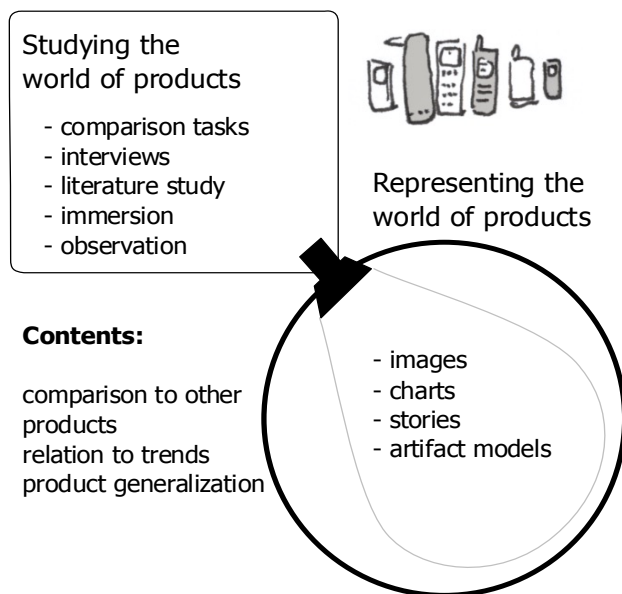


Figure 6. The world of products

The design perspective- appearance and user interface

Concept design aims at describing the product and its qualities. The aesthetics and physical ergonomics of the product appearance and the cognitive ergonomics of the user interface affect the product experience.

Changing the view from the scenes of experience to product perspective gives directions what are the qualities, which matter. Experience prototypes are one way to get user centred understanding about physical design features of the future product, such as material qualities and shapes. The way people understand and use current systems and devices support in finding new possibilities for user interface design.

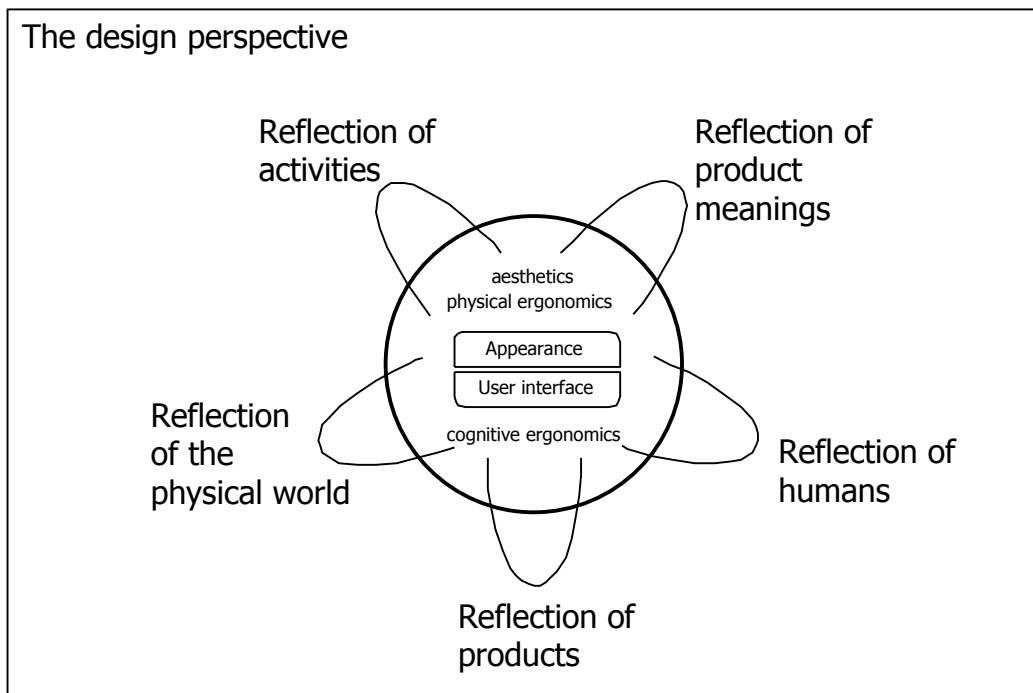


Figure 7. The design perspective

Discussion and future directions

In order to develop user centered tools for concept design we need to understand the possible users and the complex phenomenon of user experience. In this paper we have presented the framework of user experience dimensions as a tool to support that understanding. The framework is presently still in process and there are some questions that should be considered in future development.

Our goal is not to theoretically separate the perspectives of the user experience, because the perspectives are mixed in reality. Also, the perspectives in the framework are partly overlapping. The world of products and the world of product meanings are very close. The first one is more subjective and close to the world of humans. The second relates how the user sees the market context and how it affects the perceived product experience.

In the presented framework, the tools to study and present each dimensions are examples. The achieved results can be affected by various issues. User centered tools are situational. They have to be applicable and scalable for different product and organizational contexts. Also the attitude of the organization, researcher or the designer, the focus of the study, user data interpretation methods and communication needs have influence on results.

Our next phase is to evaluate it with designers and in concept design process cases. Although the user experience is holistic and it changes in time, holism can be too open and ambiguous for managing a user centred product design process. The design process of interactive systems and products in organisations include a variety of disciplines. The mastering of the different kinds of user data and utilisation of the deliverables may vary according to the responsibilities and the perspectives of user experience related to areas of interests. Then, however, special attention should be paid and actions taken to support the shared user understanding and the common goal with special tools and holistic frameworks.

Another future direction with the development of the framework is whether it could be used for measuring the qualities of the experiences- what are the things that matter for concept design cases.

The Downhill snow sports case aimed at seeing the skiers, their culture and activity holistically in order to understand the phenomenon. The data from that case cannot be put into one of the lights in the scene of experiences. It covers them all:

- The World of product meanings: skiers have their experience about current wrist top computers, the meaning of video equipment in mountains.
- The World of humans: people's characters and motivations, interaction with other skiers, social life and its role in the culture of free rides and their attitudes and life styles
- The World of activities: understanding the different activities related to free riding
- The Physical world: mountains, snow conditions, packages, equipment
- The World of products: equipment, laptops, video cameras already in use

The scene is now lit and the product concept opportunities are there to be discovered.

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