

Role Playing Games for Concept Design of Mobile Services

A Participatory Design Session to Envision with Users Future Mobile Services

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ABSTRACT

Our research is carried out in an industry-funded project that investigates the service architecture for the nomadic Internet user of the future. In carrying out concept design we recognize, among others, the challenge of allowing the use context to influence design activities of mobile services. We consider user participation as a way to reduce the gap between design and use. We present a role playing game in a mise-en-scène made out of toys to envision and try out with users future mobile services.

Keywords

Mobile services, participatory design, role playing game

1. INTRODUCTION

In the design of mobile services and devices we recognize, among others, two challenges:

- 1) User participation, designing with users to reduce the gap between design and use.
- 2) The challenge of allowing the use context to influence design activities.

The designers can analyze directly the current use situation, which might differ from the future one. The future use context is influential at various levels, for example physical, social, and organizational. In mobile devices it is particularly changing as mobile users can continuously change environment and the mobile services may include remote interaction with other

nomadic users. How can we envision ideas and study the users in future situations?

Our research is carried out in an industry-funded project that investigates the service architecture for the nomadic Internet user of the future. Our part in the project is to develop future scenarios of use and prototyping of end-user services and devices. In our design, we developed participatory methods to take into account the context especially while generating use scenarios (Iacucci et al. 2000, Iacucci Kuutti and Ranta 2000).

Information gathering may include ethnographic observations and other techniques to gather contextual information. In our research, we devote particular attention to the objective of linking information about the context to the actual design activities as "every course of action depends in essential ways upon its material and social circumstances" (Suchman 1987).

Inspired by previous work in Scandinavian participatory design (Ehn and Sjögren 1991, Kyng 1995) we developed a role playing game in a mise-en-scène made out of toys.

2. THE ROLE PLAYING GAME

The basic principle of our games is to let participants play roles or act as themselves in given situations. The situations and the roles are taken from the user studies or are invented. According to the situation, varieties of places are materialized in a game environment through toys, labels and pictures. The players imagine what kind of devices or services could support their mobility and communication, discuss, and act out the ideas in the given situation. Such a game can be organized in different ways. The number of the players can vary from 3 to 7 participants. The story structure also varies according to the presence of the following: initial scenario or situation, plot or event lists, incidents cards, roles and goals of players. In other words, the group interaction can be organized around an initial scenario letting the players free to improvise, or can be influenced by predefined information and rules.

A designer can play as game master (similar to role playing games like Dungeons and Dragons). The master guides the unfolding of the game introducing incidents and deciding who plays. As in role games, the master is the interface to the environment representing the world with its opportunities and constraints. In this way, a designer has a direct influence in the game's unfolding. The games were played in a more or less detailed representation of the environment. The designers prepare with toys and other material a representation of places that are expected to be relevant in the game situation. Each place is filled up with as many details as possible.

The environment displays different places that players will probably visit with their toy characters during the game. The places are prepared around the room on bookshelf and tables. Some of the places contain rooms and other facilities to reflect the function of the place. In the central table a street map connects all the places and is also filled with toys such as a bus, taxis, bus stops, devices, toy characters and many other little toys. Each place has a printed sign showing its name and a graphical symbol and is filled with as many contextual characteristics as possible. An *event list* is prepared for the players to go through during the game. The list is displayed on the wall to help players be aware of

passing time and planning how to carry out all the events within the playtime. There is a box with *incident cards* to introduce some surprises and dynamism into the game. During the game, the master can ask one player to pick up a card describing an upcoming incident. To improve usage of toy objects and help players to be innovative, a *magic box* containing different toys and inspiring objects like glasses is offered to the players, gloves etc. A *micro magic box* contained inspiring objects the same size as the toy characters.

At this stage, we partially display the physical context and we manage to include social, cultural and organizational aspects. The physical context is explicated through:

- the relative position and distance of places
- visual labels recalling the type of place
- the artefacts contained in each place

The enactment of the players stages partially social and cultural context. This is possible because the players are the users themselves, thus they bring in real socio-cultural aspects. Finally, the organizational dimension is taken into account during the unfolding of the game through the player enactment and through a carefully prepared plot and events.

3. REFERENCES

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