Understanding Teenagers’ Motivation for Participatory Design

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Abstract
Participatory Design (PD) engages those who are affected by a future design artefact in the design process. Participatory Design literature mostly describe how users are engaged in the process and tools, techniques and methods for facilitating the process as one of mutual learning. Nevertheless, the study of how users are motivated in engaging with the design process is still uncovered. This paper examines how PD researchers motivates teenagers to engage in a Participatory Design project. By analyzing the core activities in a PD project, we will present the means used for motivating teens to participate in the design process.

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Teenagers; Participatory design; motivation; means

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General Terms
Design, Teenagers
Introduction

It is widely recognized within current IDC research that an element of user involvement is needed, for further understandings of the end users needs and wants. Especially Druin’s seminal work on Coorporative Inquiry [2, 3] and the Scandinavian approach to Participatory Design [6, 7] have gained acceptance in IDC. As we recognize the importance and applicability of both approaches, this paper mainly focuses on Participatory Design as we introduce an investigation of how teens are motivated to participate in these mutual learning processes. This effort comes about as we recognize that teens as a user group differs significantly from the blue-collar workers that PD originally was intended for [4]. The challenges in PD have evolved into how to motivate the participants to take part in the design process. In the following, we will provide a case study from a recent PD project in which we study how researchers motivate teens during the design process. The project mainly involved pupils (aged 12-14 and equality of the genders) from two different public schools. Each workshop engaged 16–80 pupils and 5–10 teachers and school administrators. We looked at what means the PD researchers used to motivate the teens during the design process.

Means of motivation

During the project the PD researchers used several means to motivate the participants. In figure 1 the means are classified and given a headline. The axis of x indicates if the motivation is an extrinsic or intrinsic cf. Csikszentmihalyi [1]. The axis of y indicates if the motivation is material or immaterial. The material was tangible artefacts’ that the participants were given to use during the workshops. The immaterial means were social values. In the figure the means is placed based on whether they are mainly a reward in itself or if they need a reward from the outside. In the following we will account for the means used in the project.

Encouragements

To motivate the participants the PD researchers used incitements as beverages, fruit and sweets. By giving sweets to the participants the aim was to indicate that the workshop wasn’t a school situation. The workshops were held at the participant’s schools and it was therefore necessary to do something they would never expect in a school situation. For the same reason some participants were awarded with cinema tickets and the participants got a free lunch for participating.
Tools
The PD researchers applied tangible tools to inspire the participants. Before the first workshop the participants had to draw a storyboard of a situation where they have had a good learning experience. The participants were given some cardboard cards, where they had to write down what motivated the leaning situations based on the storyboards. The cardboard cards were now used as motivational cards. In some of the workshops the participants had a box full of “tools to think with” that consisted of different types of primitive artefacts that could help inspire the participants to design a new type of product.

Technology
The use of modern technology encouraged the teens to participate in the process. During the workshops the participants used different types of technology. They used video cameras and iPads to film short video clips that they uploaded in a Facebook group.

Identification
Identifications were used to motivate the participants by giving them a sense of belonging to the project. Each participant got a T-shirt and when they wore their T-shirts they had free access to the workshop facilities. In later workshops the participants were given key hangers to indicate that they took part in the workshops and a nametag.

Cooperation
By cooperating in teams of peers the teens were motivated to take part in the workshops. In every workshop the participants were divided into smaller groups of approximately five participants. In some of the workshops the participants took part in a role-play where they were acting as ‘Narrifyers’ or ‘Toposnauts’. The role of a Narrifier was to find a good learning experience and find out what motivated them in this situation and write down some motivational cards. Each narrifier presented their motivational card while the others announced whether or not they agreed by making a thumb up or down. The narrifyers placed their motivational cards on the floor and by doing so; they made ‘the garden of motivation’. In the garden of motivation the participants could walk among the motivations and write down their names on the motivations they agreed with. A Toponaut was a role invented for the occasion. As astronauts explore outer space, the topanauts were sent off on expeditions to explore the local place, or ‘topos’ in Greek.

Endorsed as experts
An important motivation mean in every workshop, was that the teens was endorsed as experts. During the workshops the PD researchers continuously emphasised that the participating teens was not invited as ‘pupils’, but as experts. As stated at the opening workshop by the research manager “Teens are experts in their everyday lives. We cannot design future technology to teens without involving these experts”.

Performance
As a motivation factor the PD researchers tried to make clear to the participants that they were being listened to by replying to the participants’ comments in verbal and in the Facebook group. In every workshop the participants had to make presentations. It varied if the presentations were verbal in plenum, in writing in the Facebook group or if the participants made a video presentation they posed on the Facebook wall.
Discussion and conclusion

For analyzing the means of the project we will use Hedegaards’ hierarchy of dominant, meaningful and stimulating motives [5]. In this paper we discuss the motives she set up for teens. For the teen it is the acceptance by the peers and success that dominates his or her motives. 'Learning' and 'play' are meaningful motives and the stimulus motives is a subject that makes sense in a different context, but placed into a new activity in which it will try to motivate the new. The stimulating motives are not established but may change depending on the teens. By looking at the means from before, we can see if they fit into these motives. The encouragements, technology and Identification are known for motivating in other contexts than in a design process and can therefore be considered as stimulating motives. The meaningful motives are 'Learning' and 'play'. During the two projects the participants took part in a role-play and they used "tools to think with" that is based on their ability to play. For the teens the social values as acceptance by peers and success are the dominant values. In the figure 1 the endorsed as experts and performance is the social values that represents the participants’ social behaviour and how their surroundings think of them. The means used in the project are shared among the three different types of motives. If there is a majority in one of the categories it may be a problem for motivating the teens. If there is a majority of stimulating means it can cause a “here and now” motivation for the participants. It is fun to participate in the moment, but is easily forgotten. On the contrary a majority of the dominant means, can cause the participants not to be able to keep their spirits up to participate. In the project the means were distributed very evenly in the hierarchy. The means engaged the teens to participate in the workshops and therefore some effective tools in the PD toolbox.

References
