Position paper presented at the Designing for Co-designers Workshop held October 1st 2008 in conjunction with the Participatory Design Conference 2008. Bloomington, Indiana. Workshop documentation available online at: http://mlab.taik.fi/co-design-ws/

Faking the real thing?

Proxy technology assessment as a method for participative design

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ABSTRACT
When investigating the requirements for the design of an online community application that could enhance the 'sense of community' in an offline community, the common user and context requirements are, in our opinion, unable to map the specific social aspects. However, these are crucial to a community application where one can produce, share and distribute new content. Hence we introduce the 'social requirements', which we formulate through the use of the 'proxy technology assessment' (PTA). With this approach, we provide a selected community with technologies that resemble in different aspects the future technology, to be used in their home environment. The experiences and actions of the users enable the researcher to reflect upon the potential future use and adjust the product development likewise. Doing this co-creation exercise enables us to offer inspiration for a community network site for citizens.

KEYWORDS
Participative design, proxy technology assessment, social requirements, ethnography

INTRODUCTION
Since the rise in popularity of social network sites like Facebook and MySpace, sceptical users and researchers alike have been raising questions about the presumed 'social aspects' of these applications. The opinions can be roughly divided in two camps: on the one hand the fear that spending time online causes decreased social involvement (e.g. Haythornthwaite, 2002; Kraut et al, 1998), and on the other hand the belief that the internet can enhance social capital (e.g. Cummings, Heeks & Huysman, 2003; Papacharissi & Rubin, 2000). Although there is a continuous search for methods to investigate both views, the understanding of complex social structures of online and offline life remains difficult.

Traditionally, both designers and developers focus on user and technological requirement for steering their system development. The attention in those design requirements focuses on the individual in his/her personal environment. However, in order to grasp not only user, but also context as well as social requirements, it is necessary that the technology can be evaluated in the social and everyday environment of the user. The sooner this evaluation process can be deployed, the better. However, in the more classical approach researchers are confronted with the innovation paradox (Jacobs, 2004), meaning that user insights can not be based on the experience with the final product as this is still under development. Therefore different methods like cultural probing, prototyping, mock ups, ... are used in order to elicitate those insights as early as possible in the design process. Nevertheless, all of these techniques are limited in grasping the experience: a mock-up does not reflect the real interaction, a prototype is often bounded to its laboratory setting, and so on.
To reflect on the everyday usage of technologies that are still in the designing

process we developed the proxy technology assesment (PTA). However, the use of these devices is not a one-way-process in which the user simply adapts the technology to his life, since the user and his surroundings change as well at the same time. Through the use of proxy technology, it is therefore possible to detect the practices, conflicts and meanings within the community (Pierson, 2005). Proxy or probing technologies can be defined as *'existing technologies that resemble as much as possible the functionalities under development'* (Pierson et al, 2006: 2). It thus confronts the user groups in their home surroundings with existing resembling tools. In other words, PTA enables the researcher to get a grip on the social structures as well as the everday use with this technology to be.

The PTA method also helps to identify changes in user behaviour and the social structures and motivations (Pierson & Lievens, 2005). The approach stimulates the user's experience and practices, as well as the rationalisations about them. Respondents do not have to talk about abstract concepts because they all reflect upon the same concrete thing –avoiding the problem of each respondent imagining a different concept (Vermeir et al, 2008: 23). PTA therefore supports the product development by generating 'thick' descriptions (Pierson et al, 2006).

A multi-method social scientific research set up is a key element within PTA. This makes data triangulation possible and enriches the result. Hence proxy technologies are utilized in a supportive role for other interpretative research methods, as for example desk research, ethnographic observation, questionnaires, logging, diaries, cultural probes and in-depth interviews. To fully benefit from the opportunities the PTA offers, it is best used in an iterative way. We do think that this is an essential step in the process of participative design, since it aims at considering the end user as full participants in activities leading to both computer products and computer-based activities (Muller, 2002).

In the next section we will illustrate the set-up, the use and outcomes of this method, based on our experience from the European research project CITIZEN MEDIA (Sixth Framework Program)[1].

CASE

Our main focus in this project is the investigation of the different types of user requiremens, with an emphasis on social requirements. Not only do these refer to how people interact with the technology as such, also the interaction between the social relations in a community and the technology under development is taken into account.

The sense of community and the aim to to design an online application that could possibly raise this feeling in an existing offline community are central concepts in this research. Therefore it is necessary to know what the sense of community consists of. From literature, two crucial aspects can be derived: both the *belief in the community or the 'imagining'* (e.g. Reid, 1995) and the *commitment* to it (e.g. Meng, 2005) make up for this feeling.

We conduct this research in two existing offline communities with a clear social function. The first group is a neighbourhood community, with local contacts that form a basis for the social cohesion. This community consists of 87 families living in the same neighbourhood in the Belgian city of Hasselt (population 70.000). The investigation of the second phase focuses on a gay community, which is more action oriented and has an emancipating function. This community is based in the Belgian capital of Brussels and formed by fifty (mainly) male members in their forties and fifties. While the first case study has come to an end, the second study has recently started up and is therefore work in progress.

Both communities were equiped with different 'proxies' or technologies that resemble the future co-creative technology. The central proxy is a dedicated online community platform. For this we chose the Ning platform, as this social network site is specifically designed for supporting communities (Ning, 2008). To support the central proxy we handed enabling technologies to the user (like a videocamera, photocamera, computer, and so on) in order to create and publish content. These devices are defined as supporting proxies. To extend the selection of the supporting proxies, community members were given the opportunity to propose suggestions

[1] *This project researches both user generated content and user generated applications for average users (producing, distributing and sharing), and its possible linkages with social change.*

themselves. They were able to utilize the proxies at home for three months, at their own chosen frequency and intensity. During and after this testing period, different qualitative research methods were used to provide us with their feedback, and to ensure the participative design process.

Within the Citizen Media project we used both interpretative methods and objective metrics to research the usage of- and experiences with the proxies. First, we kept a website logbook in which we noted the actions on the website on a daily base: who posts what, are there any reactions, and if so, how are they, and so on. Second, we combined these logbook notes with the data from web analytics; in this case Google Analytics indicating the number of visitors, time spent on the website, favourite pages, ... This provided us with a detailed view on the community's behaviour on the website. In addition we attended to different community activities as part of the participative observation, which enabled us to collect information and observe the social structures in real life.
These data, thus collected via metrics and participative observation, were checked and deepened with use of various other research methods as profiling questionnaires, the conduction of five focus group discussions and ten in-depth interviews.

With the findings so acquired, recommendations could be made in the iterative process. During the research of the first community, we collected feedback about the proxy-website. The questions or practical problems of the community, captured in a logbook, were –whenever possible- solved immediately. This was necessary in order to remove as much technological barriers as possible, so that the Ning site could be fully appropriated as the central social proxy.

Equally important, it permitted us to detect user, context and social requirements. 'Trust', for example, turned out to be a *conditio sine qua non* for participation. Several community members made clear that they would not even start in the project if privacy (and thus their trust) could not be guaranteed. In order to respond to this question, an 'invitation only' system was installed at the community site. This meant that only people who received an invitation mail from a community member, could log on to the site. Besides the trust issue, some members also had practical problems with certain functions on the site and the supporting proxies. This was solved by providing a simple, hands on manual online, some weeks into the project. Through the iterative process, the website set up was altered and adjusted for the start of the second community. This makes it possible to investigate the different dimensions as well as the value of trust as a requirement.

CONCLUSION

The objective of the Citizen Media project is the development of a social network site that could facilitate or even enhance the 'sense of community' in an offline community. Therefore, we make use of the proxy technology assessment to detect different requirements. Through observation of happenings both online and offline, and via questionnaires, personal interviews and focus groups, we gain insight in the possible use of the technologies and services to be developed. During the whole investigation process, iterative moments are scheduled to integrate the findings in the research set up. This enables us to formulate technological recommendations based on the everyday use and feedback of the community members, which support and guide the participative design of online community applications.

Proxy technology assessment provided us with a strong indication of how the future technology could be used in everyday life. The method also turned out to be suited for reaching the difficult research target group of the 'non users', who have little or no media technologies at home. Since proxy technology assessment supplies them with adequate technologies, it is possible to investigate these community members as well regarding the use of new media.

The use of proxy technology assessment could therefore be described as 'faking the real thing'. Although the distributed technologies are not the same as the future product (and thus 'fake' from a literal and certainly technological point of view), through their similarity in functionalities (and thus affordances), they provoke comparable experiences and reactions in usage. By using 'fake' technology, real reactions and information about the possible everyday use of the future product are generated in the test community, which is the main objective of the PTA method. Hence PTA is not faking, but reflecting reality with regard to the different requirements as well as user experiences and practices.

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Web Resources

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