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Accessibility for Cognitive and Mentally Disabled Persons

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Abstract. This document provides a short description of my current work on how persons with mental and cognitive disabilities cope in the digital society.

1 The research area or sub-area of the work

Accessibility for cognitive and mentally disabled persons

1.1 A brief description of the research topic

Is the society digitally accessible for persons with mental disabilities? It is likely that the fast development of devices, services and techniques open up opportunities for a better life but it is also likely that different kind of obstacles may occur. Is there a digital divide between citizens in general and citizens with mental disabilities? And if so; what is the nature of this divide?

How can persons with mental disabilities take part in research studies and how can they take part in processes in order to change or produce new services or devices?

For further information about the topic, please see my paper 84 - Cognitive accessibility for mentally disabled persons, which has been accepted for publication and presentation at INTERACT 2015.

2 Description of the research problem

The problem is of two kinds. The first is to explore and describe how persons with mental illnesses could participate and benefit from possibilities created by what we in a broad term can call the digital society. The second is how to do this research in itself. Traditional methods for user participation needs to be adjusted end developed when users suffer from different kinds of mental health problems.

2.1 The research hypothesis

There is a gap between citizens in general and citizens with mental illness in terms of being involved in the digital society.

Persons with mental illnesses are often excluded from research in the field of HCI. This is especially true when it comes to main stream subjects.

2.2 Methods

The overall research approach follows the tradition of Action Research. More specifically the method is heavily influenced by the tradition of Participatory Design or the more Scandinavian version of Cooperative Design and we have therefore used an adapted form of Participatory Action Research.

In the study described in paper 84 - Cognitive accessibility for mentally disabled persons, we have used a concept called study circles. Study circles have a long tradition in the Nordic countries. A study circle is a group of adults that meet and discuss a specific topic. It is done by free will and in a democratic way. There is no teacher; instead a study circle has a leader who facilitates the discussions. The concept of study circles has been complemented with methods to visualize key findings and key conclusions.

In another study we work with persons that also have cognitive disabilities but in this cased caused by adhd, dyslexia, autism and intellectual disabilities. In the study we test different kind of data collection methods to evaluate how easy it is for the participants to take part.

3 A sketch of the proposed solution

The solution I am proposing is to work with a mix of data collection methods. I have started to create cognitive user test profiles based on how individuals say they can take part in research and development processes. So far we have tested 20 different data collection methods. By offering 3-5 methods it seems that every participant can pick at least one method that makes it possible for them to participate. This indicates that the design of research projects could benefit from offering different ways of participation.

3.1 The expected contributions of the PhD research

I expect taking part in the DC will help me to be more precise and to focus on the right thing. Having the opportunity to present and discuss my research and doing the same with others will help me to sharpen my arguments and to present my material with more rigor end relevance.

3.2 A statement of work to date and open questions/issues for discussion at the DC.

I would like to discuss methods of user participation when users have cognitive and mental disabilities. Those users can be difficult to involve both because of their problems but also because of the research community having difficulties in adapting methods that do work. A person with impairment cannot do much about the fact that there is an impairment but the research community should be able to do a lot to develop new methods or adapting old methods so users can be involved.

I would also like to discuss how HCI research in general could take cognitive accessibility into account. Systems, interfaces and devices are often too difficult to use and the potential for simplicity that lies hidden in a cleverly designed product or service is often lost.

Work to date is that one study is finished and will be presented at the Interact 2015. Another study is in year 2 of a 3 year project, where the work with testing data collection methods will end at 2 year mark (in august 2015). A third project where we will test methods for user participation together with homeless persons and the social service in Stockholm, Sweden has just started.