

User Driven Innovation and Assistive Technology Development for Home and Near-home Care Situations and Settings

Invitation to a 1 ½ day workshop related to user driven innovation and assistive technology development in home care on June 9-10, 2009 at the Centre for Pervasive Healthcare, Aarhus University.

Introduction:

The healthcare sector in the western world stands in front of a major challenge. On the one hand the population of elderly – and their expectations regarding service from the public – will continue to grow in the nearest future. On the other hand public resources are scarce. At the same time research shows that we heal or recover better after an intervention if we stay at home. Elderly in e.g. an early stage of dementia benefits from remaining in a familiar environment: their homes.

Due to these trends innovative technology solutions implemented in the homes of patients and elderly – with proper organizational support – are perceived as potential solutions that will allow people to age or rehabilitate in their homes and at the same time save costs. The general idea is that technology should support, aid and provide safety to enable people to stay in their homes instead of in a hospital or elderly care centre. Current applications mainly exist in the domain of communication, rehabilitation, safety, memory and guide-functions. However, a private home is not built to serve as a care-providing space. To allow an apartment to turn into a space that assist people during all phases of their life, including scenarios of sickness, rehabilitation and special needs that emerge with age or by different disabilities, installation of infrastructure and special devices/systems has to be undertaken. This tends to include also apartment building maintenance/administration decisions and municipality. Furthermore, the introduction of technology in the home to assist the inhabitant and the caregiver, create the need to interact with advanced technology and to understand the impact of diverse actions in the apartment. This applies both for the person or persons living in the apartment as well as for the care personnel. Furthermore, the affected people (people living in the homes, care personnel, family and friends) might not have a profound knowledge, or even interest in handling advanced technology.

So-called Home-labs have been seen as one possible way to bridge the development (engineering phase) and the installation in people's homes (use phase), to allow new solutions to be tested in a controlled, home like environment with 'real' users and other stakeholders (e.g. care personnel) using the technology. In this context a Home-lab is a controlled lab-environment built as an apartment, with the difference that it is designed to facilitate easy reconstruction, post-construction installation of new technologies and easy monitoring to allow researchers and manufactures of home technology to evaluate use of novel technology in a controlled, but still home-like setting. How does a Home-lab position itself in relation to a normal offsite lab or a full-scale 'test bed' where technology is installed and tried out in real apartments? What role can a home-lab play in the product maturing phase of technological care solutions for private homes and what other methods can be used (separately or together) to facilitate the shift from the engineering to the use phase. Can e.g. Participatory Design and User Driven Innovation catalyze the process to shift from development to use and help us to understand and extract the needs of people in the different scenarios described above?

Workshop outcome:

The Workshop aim to investigate, share and discuss current state of the art and lessons learnt from different projects, both finalized and in-progress related to pervasive (healthcare) technology, home care and building for homecare; from a user (e.g. a person inhabit an apartment, family and care personnel), technology, organizational and economical perspective. The workshop will be a mix of presentations and discussions to enable networking among the participants and cross-fertilization among the different skills and backgrounds of the participants.

What are the challenges and possibilities with care in home or near-home settings? How can we develop solutions that 1) will work in such diverse settings as private homes and 2) be understandable, attractive and appealing for the end-users living in the homes and what role can user involvement fill in the development process? The workshop likes to investigate and expand the current perspective on the challenges and possibilities related to User Driven Innovation and Assistive Technology Development for Home and Near-home Care Situations and Settings; This to share knowledge and to set a common stage for discussions and further work. The first day discussions will provide input to the second day's group work where the participants should more deeply explore, discuss and then present their findings related to the first day topics.

Agenda:**Tuesday 9 June (Room: Ada-333)**

09:00 Welcome and Introduction (Erik Grönvall & Morten Kyng / CfPH)
SESSION 1: Project Presentations (20 minutes per talk + 5 minutes break)
09:30 Remote Rehabilitation Support (Thomas Hohn / CfPH)
09:55 Fall prevention in home care settings (Stefan Lundberg / KTH)
10:20 Coffee break
10:35 Vestibular Rehabilitation (Erik Grönvall / CfPH)
11:00 Wrap up and round table discussion
11:45 Lunch
SESSION 2: Human and technological factors in care at home
12:45 Does it work on Sundays? Health IT in the home (Stinne Aaløkke / CfPH)
13:10 Open Care Project (Stefan Wagner / Engineering College of Århus)
13:35 Coffee break
SESSION 3: Home Labs
13:45 KTH Home lab (Stefan Lundberg / KTH)
14:45 Katrinebjerg Home lab in a care network (Morten Kyng / CfPH)
15:10 Break
15:20 Discussion
17:00 End of workshop

Wednesday 10 June (Room: Ada-018)

09:30 Introduction & coffee
09:40 Summary of yesterday
10:00 Group work

- Home Labs: How to establish and run physical facilities
- Home-lab experiments and projects: Themes, participants and stakeholders

12:00 Group presentations and discussion of future collaborations
13:00 Lunch
14:00 End of workshop

The participation to the workshop is free, but we have limited the number of participants to 30. Interest to participate can be emailed to Erik Grönvall (gronvall@cs.au.dk) and (depending on number of interests) a rejection/confirmation email will be sent out.

Registration Deadline: 27/5 2009

Notification of participation: 29/5 2009

Workshop organizers:

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