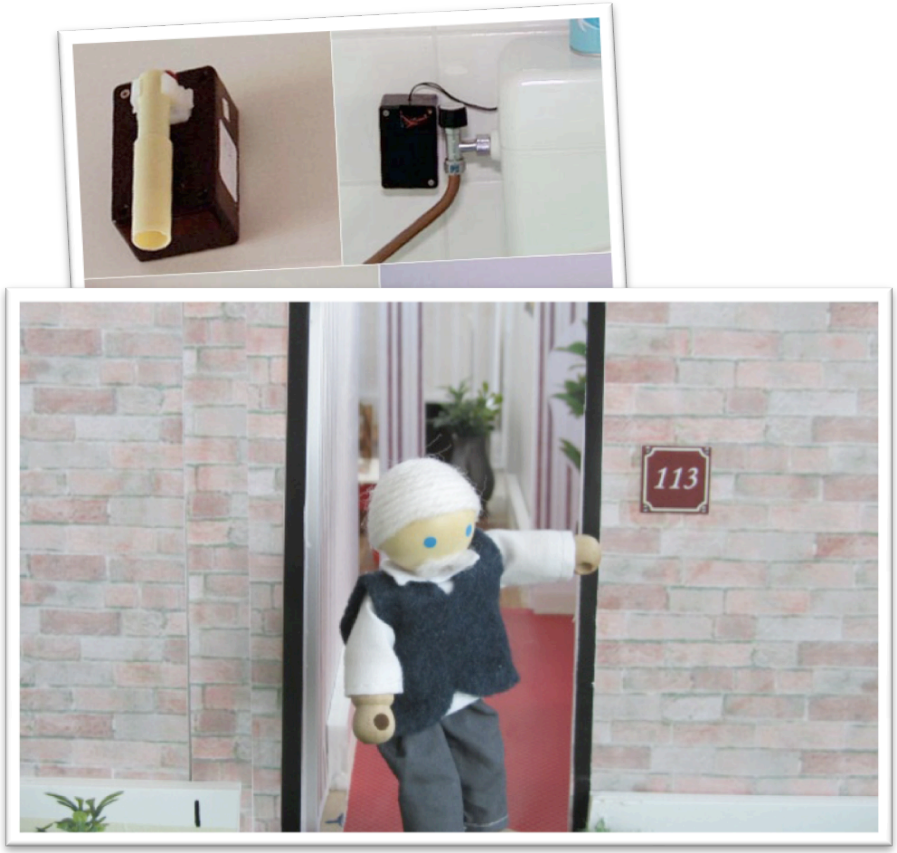


Project aim:

Collaboratively explore health solutions in real context with real users

User group:

Elderly people, people with dementia, patients (formal and informal care givers)

Tool/method:

Health-lab, a real-life testing environment: A large part of our research is carried out in a Living Lab setting, an environment and infrastructure where real users can be exposed to applications in their daily life. In The Netherlands, several Living Lab locations have been set-up as part of Health-lab, a program that focuses on innovative solutions for enabling people to live longer independently. In this program, people from diverse care institutions, research institutes and companies closely work together with end-users to co-create (technical) solutions. The program's first Living Lab for health innovation was Nursing home Naarderheem, in 2006. The current Living Lab setting involves apartments in different locations that were eventually equipped as AAL environments in which sensor-monitoring systems have been installed.

Mark in the timeline when the tool was used

Name: *Marije Kanis, Saskia Robben et al.*

Affiliation: *Amsterdam University of Applied Sciences & Health lab partners (Waag Society, Amsta, Gemeente Amsterdam, etc)*

Project aim:

Collaboratively explore new ideas for health care solutions in a micro living lab.

User group:

Elderly people, patients, people with dementia

Tool/method:

Workshop with Living Lab mock-ups and role-playing. A hands-on workshop was organised (during Picnic 2012) which was themed around co-creating and debating in a micro-Living Lab together. Living Labs are about real-world experimentation, innovation and co-creation, environments that enable us to tackle and experiment with real user challenges in health care, public space and much more. The focus was on our experience with co-creation as well as living labs. The workshop engaged in the co-creation process and Living Lab challenges through real-world design cases. Participants were each designed a role (e.g.patient with severe dementia, director) and provided with creative building material, so to encourage the active development of design concepts from different user perspectives in tangible real-world context.

Mark in the timeline when the tool was used

Name: *Marije Kanis, Ben Kröse & Mettina Veenstra*

Affiliation: *Amsterdam University of Applied Sciences*

Project aim:

To actively engage elderly people in the process of sensor monitoring

User group:

Elderly people et al.

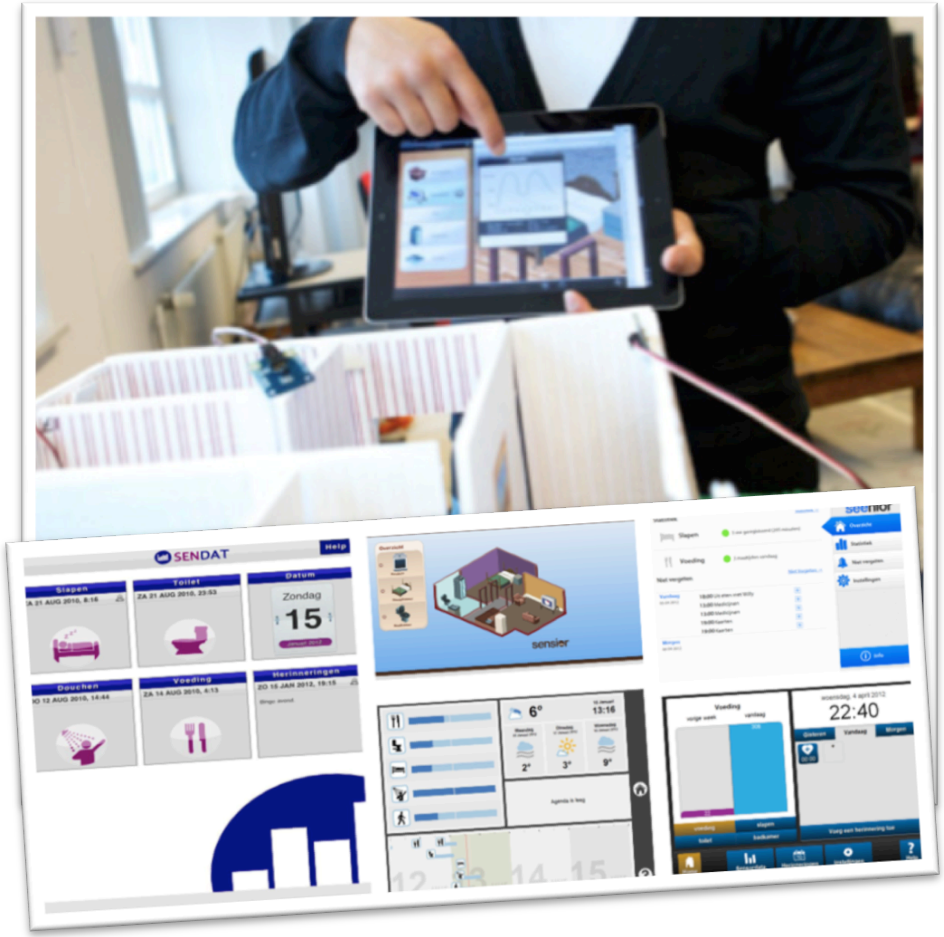
Tool/method:

Interactive dollhouse: Sensor-equipped dollhouses were developed for increasing people's understanding of the existence and desired workings of ambient monitoring technology in the home. The dollhouses, scale models of the different sensor equipped homes, were developed and used to engage elderly users in residential monitoring. The scale models have been equipped with simple sensors that are able to track movement and so simulate the actual monitoring environment. The models were used as an elderly-centered research and design method in different settings. In study sessions it was used to identify elderly people's needs and attitudes towards applying ambient sensor systems for monitoring daily activities in the home. The dollhouses were used for different purposes: as an explanatory, discussion, study and co-creation tool.

Mark in the timeline when the tool was used

Name: *Marije Kanis et al. (i.c.w. students Senior Create-IT project, Vivium Naarderheem, Healh-lab and Waag Society)*

Affiliation: *Amsterdam University of Applied Sciences*



Project aim:

Better engage users in the process of sensor monitoring by visualizing sensor output

User group:

Elderly people | Care specialists

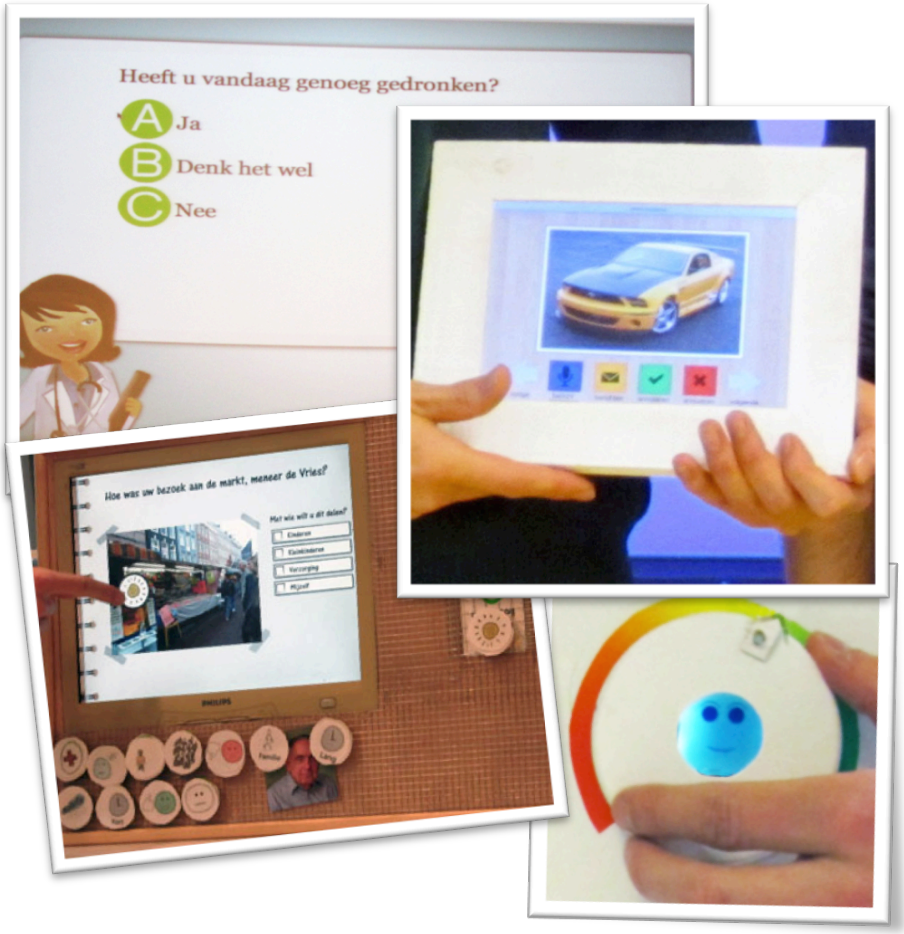
Tool/method:

Interactive visualizations. To better engage users in the process of sensor monitoring, our students built various apps for displaying live monitored sensor activity data. The users were actively involved in the iterative design and evaluation of these applications. The interactive visualizations were also evaluated with occupational therapists and tested in a field study. Interactive visualizations were built for elderly people, but also for formal care workers (occupational therapists, physiotherapists and GP) so they could also make better sense out of the data. In this way, elderly users were able to better understand the data collected and had more control over their data. The interactive visualizations enabled formal care workers to better spot relevant deviations in sensor patterns and so better aid vulnerable people in alarming situations.

Mark in the timeline when the tool was used

Name: *Marije Kanis & Saskia Robben (i.c.w. Margriet Pol, Shirley Niemans, students Communication and Media Design, Judith Hageman, Anne Bimmerman,,* Judith Hagen, Natasja Wagelaar, Mike Trinh & *Mario Boot)*

Affiliation: *Amsterdam University of Applied Sciences*



Project aim:

Enable the elderly user to provide input on how they are doing.

User group:

Elderly people

Tool/method:

Working prototypes designed for/ and with elderly people. Technology designed to assist and care for elderly people, such as in the field of Ambient Assisted Living (AAL), often fails to directly incorporate input from elderly people. For example, ambient monitoring systems that typically focus on the automatic tracking of the daily activities and status of elderly people with sensors in the home, do not directly ask how the elder is doing. Although implicit information solely derived from sensors can be relevant, for example for signalling disease at an early stage, there is also a need for incorporating explicit user input. For this purpose, through iterative sessions, a wide range of applications -such as an interactive television quiz, an interactive photo frame, a tangible mood board and a HowUfeel button- were developed enabling elderly people to give status updates on how they are doing.

Mark in the timeline when the tool was used

Name: *Marije Kanis & Saskia Robben (i.c.m. Frank Kloos, Students Communication, Media & Design, Amber Mollee & Rossy Lazarov)*

Affiliation: *Amsterdam University of Applied Sciences.*

Project aim:

Obtain richer input from the elderly user in real-life settings

User group:

Elder user (might be extended to other user groups)

Tool/method:

Commercial implementation and field test of Mood dial: The Mood dial is a tangible device for the explicit communication of how you are feeling. With the tangible, radial button a person can indicate how (s)he feels by turning the switch from left (not feeling well at all) to right (feeling very well), while a smiley face is changing accordingly from very happy to very sad. The tool enables the elder user to explicitly capture one's feelings in a simple and dynamic way. The Mood dial was found to be mostly suited for further implementation with a commercial sensor system, because of its perceived low costs, simplistic, attractive and tangible form. The Mood dial was implemented and tested in the real homes of users that had already commercial sensor networks installed.

Mark in the timeline when the tool was used

Name: *Marije Kanis, Saskia Robben (i.c.m. Students Communication Media Design, Patrick Post & Andraniek Matshkalyan Van Dorp Zorg en Welzijn)*

Affiliation: *Amsterdam University of Applied Sciences*

Project aim:

Useful and usable (technical) solutions for (elder) user.

User group:

Elderly people and (other) people with cognitive and sensory impairments

Tool/method:

Multidisciplinary teams, including occupational therapists.

Democratic inclusion of people with cognitive and sensory impairments, such as older adults has been recognized as challenging and needing a different approach. From our research experience, a multidisciplinary approach involving occupational therapists in such processes could help to increase common understanding between elderly people and other parties. In our multidisciplinary research, occupational therapists were a valuable contribution in recruiting, dealing and interacting with elderly people. They were involved in many studies and helping in democratically assessing acceptance issues when regarding a sensor system for monitoring elderly people's daily activities.

Mark in the timeline when the tool was used

Name: *Marije Kanis, Saskia Robben, Margriet Pol et al!*

Affiliation: *Amsterdam University of Applied Sciences (i.c.w. Health-lab Partners, Vivium Naarderheem)*