

ABSTRACT

A brief overview about the development of the bachelor assignment.

Smart Homes is a company that develops smart, accessible, technological solutions and services in the personal living environment. They will soon purchase a Pepper robot at SoftBank Robotics. They want to deploy this robot at care institution TanteLouise. Smart Homes wants to adapt the Pepper robot to the Dutch market and is interested in its applications. The possibilities of the Pepper robot will be examined based on qualitative research. This makes it possible to conduct an in-depth analysis within a limited time frame. Location 'De Vossemere' will serve as a research location. They are an example for multiple healthcare institutions. The goal of this project is to develop a toolkit that will help care institutions gain insight into Pepper's possibilities through scenarios. The toolkit should provide insight into the values that stakeholders want to maintain and the bottlenecks that they encounter. In addition, the toolkit should show how an innovation like Pepper creates opportunities to hold on to all values, without causing these bottlenecks. Smart Homes acts as the lessor of the Pepper robot and can use this toolkit to generate the highest possible satisfaction about the robot, so that more and more healthcare institutions want to rent it.

By means of literature research, information will be obtained about participatory design, the Pepper robot, and the applications of technologies in care homes. The project is based on participatory design. Participatory design is a design process wherein the user is involved throughout the whole process. It refers to a large collection of attitudes and techniques based on the concept that the people who will ultimately use the product are entitled to have a voice in determining how the product is designed (Chapman, 2012). Different participatory design methods will be used to find out what requirements the toolkit must meet. The toolkit will eventually be tested with the caregivers of TanteLouise location 'De Vossemere'.

The toolkit gave successfully insight in ways that the Pepper robot could be useful for care homes. By investigating in the needs and values of the stakeholders, ideas are generated for applications of the Pepper robot. However, research showed that the toolkit still performed mediocre on the following aspects: being suitable for multidisciplinary stakeholders, providing a method to handle the different levels of creativity persons have, being time efficient, making the Pepper robot tangible. Research showed that making Pepper the facilitator of the toolkit, would help to solve the present challenges. Further research still needs to be done to further develop this digital toolkit. Software needs to be programmed, and toolkit must be further developed based on participatory design tests. Thereby the ideas that were generated as outcome of the toolkit still need to be tested with a real Pepper robot in a care home. The outcome of this future research will most certainly lead to iterative steps, making changes in the methodology of the toolkit. Overall, the conclusion is that the thesis provides answers to further develop a participatory design toolkit to investigate in the ways that the Pepper robot could be useful for care homes.

References

Chapman, J. (2012). Designers, visionaries and other stories: a collection of sustainable design essays. Earthscan.