

The Assisted Living Project

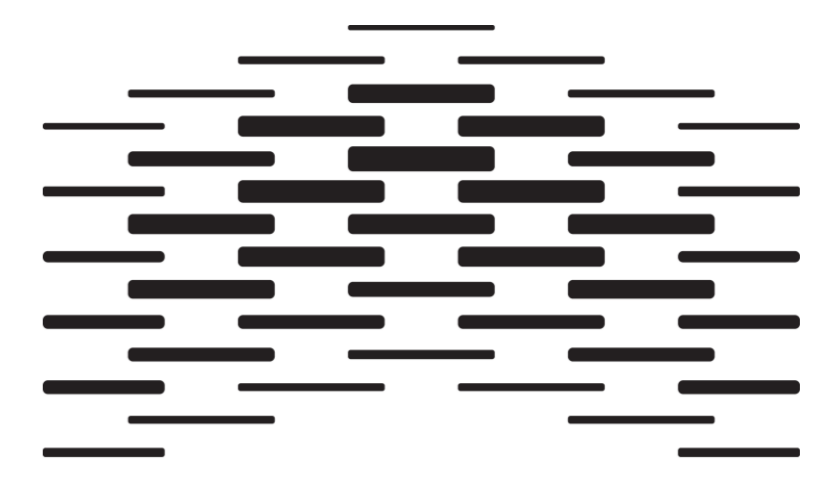
Responsible innovations for dignified lives at home for persons with Mild Cognitive Impairment or dementia

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Abstract

The Assisted Living project is a transdisciplinary research in the fields of ICT, health science, social science and ethics. It aims to develop Assisted Living Technology (ALT) for people with Mild Cognitive Impairment and Dementia (MCI/D). One of the objectives of the project is to build knowledge and experience on how to realize Responsible Research and Innovation (RRI) in the field of welfare technologies. The focus of the technology work is to develop self-learning solutions and hence systems that over time adapt to individual users' needs, behaviour and preferences. More information can be found in the project website [1].

1. Introduction

Main goal: to develop **self-learning assisted living technologies** that will **increase the quality of life** of persons with MCI/D based on RRI framework, so that they can **age well with dignity and independence** at their own home.

Motivation

Currently, nearly **36 million people suffer from dementia** globally and 70.000 in Norway. In 2050, it is estimated that 100 million people will have dementia.

Definitions

Assisted Living Technology (ALT): technologies that aim to maintain the independence of individuals by supporting everyday activities and living.

Mild Cognitive Impairment (MCI) [2]: decline in cognitive abilities (e.g. memory, decision making, problem solving, and comprehension).

Dementia [3]: severe decline in cognitive abilities.

Responsible Research Innovation (RRI) [4]: framework adopted by the research programme Horizon 2020. Six key dimensions: engagement of citizens, gender equality, science education, open access, ethics and governance.



Project Partners



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Associated Partners



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2. Research Questions and Discussions

Can **useful self-learning systems** be realized for people with MCI/D?

Can such systems operate in accordance **with users' wishes and preferences**, even when the users are not in the position to safeguard these aspects themselves?

Will such systems prove **safe** and useful for this specific group?

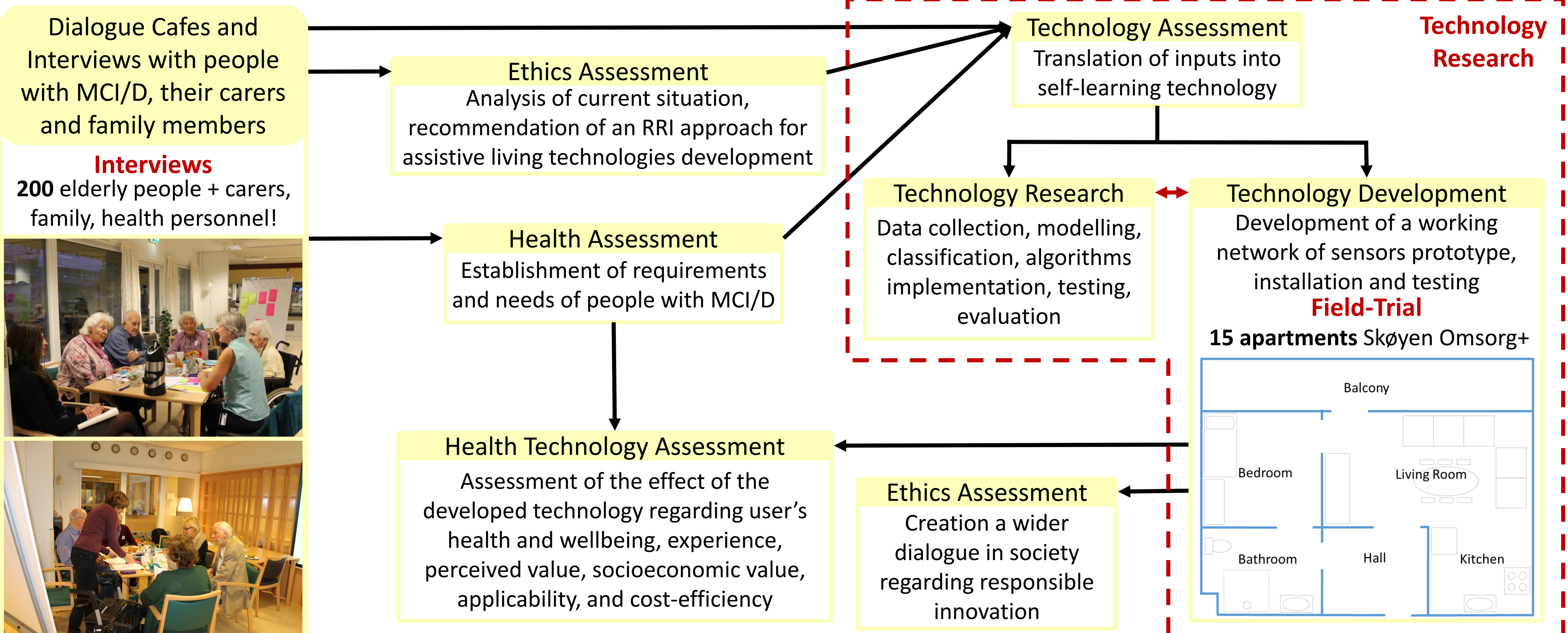
What are the **limitations**?

How can we build such systems?

What are the **future** possibilities?

What **algorithms** work best and why?

3. Interdisciplinary Research



References

[1] The Assisted Living Project website. <https://assistedlivingweb.wordpress.com> , 2016

[2] European Commission. Responsible Research and Innovation, 2014. Available in https://ec.europa.eu/research/swafs/pdf/pub_rri/KI0214595ENC.pdf

[3] Winblad et al. Mild Cognitive Impairment - beyond controversies, towards a consensus: report of the International Working Group on Mild Cognitive Impairment. 2004. Journal of Internal Medicine.

[4] World Health Organization. Dementia: a public health priority. 2012.