



AALBORG UNIVERSITY
DENMARK

The Laboratory for Welfare Technology

- Telehealth and Telerehabilitation Research



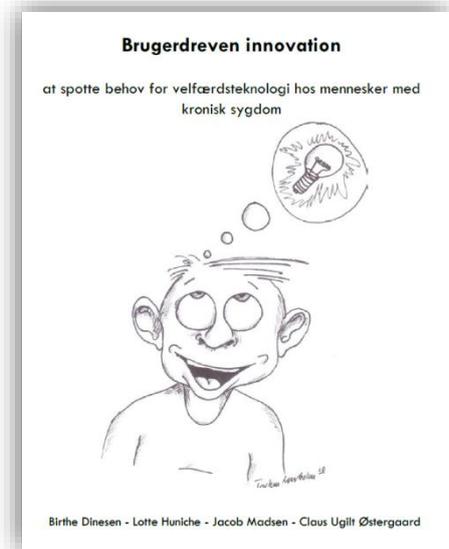
The Laboratory for Welfare Technology at Aalborg University is part of SMI in the Department of Health Science and Technology. The Lab focuses on developing, testing, implementing and evaluating the effects of new welfare technologies and on various forms of care, treatment and rehabilitation within telehealth and telerehabilitation for patients/users in the social and healthcare services of the future. The research is problem-oriented, interdisciplinary and is carried out in cooperation with national and international collaborating partners.

User-driven innovation as point of departure

User-driven innovation is the starting point for our research. We work in close dialogue with users, patients, family members, health professionals, social service workers, technology firms and researchers to develop ideas for new technologies and to test, evaluate, refine and implement these.

Research areas

- Innovation of prototypes and proof-of-concept for new, customized, “smart” and cost-effective welfare technologies and programs within telehealth and telerehabilitation in the healthcare and social service sectors.
- New tools, methods and technologies for motivating users and patients to enable them to monitor and care for their own illness, health and well-being.
- Testing, implementing and researching the effects of new telehealth and telerehabilitation technologies and programs across sectors on a large scale.



Research program and projects

From 2015 to 2020, the Lab will focus on the research program entitled "Future Patient: Individual and Intelligent Welfare Technologies and Services". The overall objective of the research program is to develop and test individual and intelligent welfare technologies and services. The target groups of the Future Patient research program are patients with heart failure and patients who have undergone knee surgery. In addition, we are carrying out several other research projects in cooperation with a number of national and international partners.

Future Patient: tele-rehabilitation of patients with heart failure

The purpose of this study is to investigate whether the monitoring of several parameters, such as physical activity, sleep, night pulse, blood pressure, pulse, weight and asking questions about symptoms and well-being can help to identify deterioration of condition at an earlier stage and teach patients to control their disease in a more individualized and optimal way.



Future Patient: telerehabilitation of patients after knee surgery

The purpose of the study is to develop and test telerehabilitation technologies and to develop a telerehabilitation program for patients who have had recent knee surgery.



iTrain

The purpose of this study is to develop and test a telerehabilitation program for patients with chronic obstructive pulmonary disease (COPD) in a multi-center randomized clinical trial, a cooperative endeavor between Norway, Australia and Denmark.



Video Support

The aim of the Video Support project is to develop, test and explore the possibility of using online video communication for the rehabilitation of mentally vulnerable citizens.



MyHeart: gamification for heart patients

The purpose is to develop and test an interactive animation tool for heart patients that can motivate, engage and teach them and their families about the importance of rehabilitation.



National cooperating partners

The research group is working with several Danish universities, hospitals, municipalities, NGOs and private companies.

International partners



The research group has initiated and cooperates with the Transatlantic Telehealth Research Network (TTRN), a consortium consisting of the Center for Information Technology Research in the Interest of Society (CITRIS) at UC Berkeley; the UC Davis Health Center; the Cleveland Clinic; Partners Connected Health, Harvard Medical School; the Centre for Innovative Medical Technology (CIMT) at Odense University Hospital; Aarhus

University; the Technical University of Denmark and Aalborg University. In addition, we collaborate with the Norwegian Centre for Integrated Care and Telemedicine (Tromsø, Norway) and with La Trobe University (Melbourne).

What kinds of cooperative arrangements are available?

The Laboratory for Welfare Technology welcomes all kinds of research, including student projects, doctoral dissertation research and advanced research projects. We have regular guest lectures, workshops and seminars, and you can follow the latest research findings from the lab on our website www.labwelfaretech.com



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