

HUMAN - CENTERED COMPUTING (HCC)



HUMAN-CENTERED COMPUTING AT AALBORG UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE
TECHNICAL FACULTY OF IT AND DESIGN

The objective of the Human-Centered Computing research group is to study, design, and develop interactive information and communication technologies for humans in their everyday and working lives.

RESEARCH

HCC CONDUCTS RESEARCH ON

- › Interaction design
- › Mobility
- › Visualisation and human control of systems
- › User experience
- › Value-driven software engineering
- › Sustainable use of energy
- › Application of machine intelligence
- › Engineering big data applications
- › Smart city
- › Digitalization
- › Interaction with sound
- › Agile software engineering

WHAT WE DO

The human-centered computing objective integrates a strong element of empirical research involving people. One part of the empirical research is experimental in the form of design, construction, and evaluation of interactive prototypes to explore and solve specific problems.

Another part is directed at the professionalization of systems and software development. This takes place through close collaboration with companies in improving their working practice and encompassing agile processes and the integration of agile development, usability engineering, and interaction design

EDUCATION

STUDY RELATED ACTIVITIES

HCC has the primary responsibility for:

- › Interaction design, BSc and MSc
- › BAIT, BSc
- › IT Design and Application, M.IT

HCC contributes in conjunction with DEIS and DPW to:

- › Computer Science, BSc and MSc
- › Software, BSc and MSc

COLLABORATION

WHO BENEFITS FROM OUR RESEARCH

The group has long been collaborating with companies on systems development and usability engineering and interaction design.

Collaboration includes both collaborative research, knowledge dissemination, further education, student groups' collaboration and students' placement.

EXTERNAL PARTNERS

Vestas Wind Systems, Adapt A/S, EnergiNord, Mjølner Informatik, Nordjyllands Trafikselskab, Systematic Software Engineering, B&O, Lego, Hardi, Nilfisk, MicroSoft Research, Aalborg University Hospital and Aalborg Municipality.

PUBLICATIONS

MOST IMPORTANT PUBLICATIONS

- › [Was it Worth the Hassle? Ten Years of Mobile HCI Research Discussions on Lab and Field Evaluations](#)
- › [Does size matter? Investigating the impact of mobile phone screen size on users' perceived usability, effectiveness and efficiency](#)
- › [Assisted Shifting of Electricity Use: A Long-Term Study of Managing Residential Heating](#)
- › [Managing e-government: Value positions and relationships](#)
- › [Using organizational influence processes to overcome IS implementation barriers...](#)
- › [Useful Business Cases: Value Creation in IS Projects](#)



AALBORG UNIVERSITY
DENMARK

KEY PROJECTS

DICYPs

The Center for Data-Intensive Cyber-physical Systems uses software and data to create smart solutions for the society.

ISOBEL

Interactive sound zones for better living.

ENERGY SYNCHRONIZING

Synchronizing energy consumption and supply in a 100 per cent renewable energy system.

BIG DATA VALUE CREATION

Research on how to create, measure and monitor benefits from big data analytics projects.

AGILITY & UX

On integrating user experience design activities in agile software development practices.

COOLNESS

Method to measure the perceived coolness of interactive products: desirability, rebelliousness and usability.

VIDEO PRESENTATION



CONTACT

RESEARCH GROUP HEAD

Peter Axel Nielsen, Professor
pan@cs.aau.dk

Mikael Skov, Professor
dubois@cs.aau.dk

www.hcc.aau.dk