

International PhD Course

Transforming Healthcare Through Digital Innovation: Design, Implementation and Evaluation



Aalborg University
Copenhagen, Denmark



August 10 -12, 2026

Course objectives

The aim of the PhD course is to introduce research methods in transforming healthcare through digital innovation from design, implementation and to evaluation. The focus is on digital technologies such as wearables, video, social robotics, digital platforms, applications (apps), clinical decision systems, and technologies within artificial intelligence (AI).

Students will be able to:

1. Analyze clinical needs and translate them into digital health solutions
2. Apply user-centered and participatory design principles in the development of digital health technologies
3. Develop a structured concept proposal for a digital health intervention or program
4. Explain and understand key theories and frameworks in implementation science
5. Critically assess methodological strengths and limitations in implementation research

6. Identify relevant outcome domains when evaluating digital health technologies (clinical, organizational, economic, social, ethical)
7. Apply complex and multidisciplinary evaluation frameworks (e.g., Health Technology Assessment principles).
8. To get an international network

All days include lectures, problem based and interactive teaching and social activities. Students will have to write three pages report on a problem related to own Ph.D. study and give a presentation on the course where peer PhD students as well as faculty at the course will give feedback.

An important part of the course is that you have the possibility to expand you professional network and get to know new international colleagues. There will be social activities planned in the city of Copenhagen.

The course is organized in collaboration between an international and interdisciplinary group of researchers within digital health from Aarhus University, Odense University Hospital, UC Berkeley, UC Davis and Aalborg University.

Faculty

- ✓ Birthe Dinesen, Professor, Laboratory for Digital Health, ExerciseTech, Department of Health Science and Technology, Aalborg University (AAU), DK (Course Chair)
- ✓ Kristian Kidholm, Professor, CIMT – Center for Innovative Medical Technology, Clinical Department, Odense University Hospital and University of Southern Denmark, DK
- ✓ Nick Anderson, Cardiff Professor of Biomedical Informatics, Chief, Division of Health Informatics, Department of Public Health Sciences, School of Medicine, Chair, Health Informatics Graduate Group, UC Davis, USA
- ✓ Helle Spindler, Associate Professor, Department of Psychology and Behavioural Sciences, Aarhus University, DK
- ✓ Katherine Kim, Professor, UC Davis School of Medicine, Public Health Sciences & Senior Scientist for Health, UC Berkeley, USA



Citations from previous Phd students participating in the course

I experienced an open, curious, and internationally oriented mindset that allowed me to gain new perspectives and reflect on the challenges we face in Denmark. At the same time, it enabled me to build a strong international network and establish relationships that I have continued to draw on ever since.

-Claus Rehfeld -

I have participated in the international Phd course several times, and it continues to be one of the most valuable learning experiences in my work with digital health. It has provided me with a strong foundation for understanding what truly matters when developing, implementing, and evaluating digital health solutions. It brings together a diverse group of experts and researchers, creating a rich and comprehensive learning environment, while offering valuable opportunities to exchange ideas across countries. At the same time, you receive constructive feedback on your own research and gain insight into other healthcare systems.

-Pernille Christiansen -

Program

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| <p>Monday</p> | <p>Theme: Introduction and Design of Digital Health Technologies & Program development</p> <ul style="list-style-type: none"> - Welcome - Ignite talks – all participants present themselves in order to get know each other - Research methods (eg. co-creation) in the design of digital health technologies - Digital Technologies (wearables, video, social robotics, digital platforms, applications (Apps), clinical decision systems, technologies with artificial intelligence (AI), etc. - Program development - Problem based & interactive learning <p>Guided tour of Copenhagen - get to know each other and explore Copenhagen together. We will go out after the tour for dinner (own payment).</p> |
| <p>Tuesday</p> | <p>Theme: Research Methods in Implementation of digital technologies</p> <ul style="list-style-type: none"> - Digital transformation - Theories of implementation: From pilot to scale up - Problem based & interactive learning - Special Focus: Implementation of Artificial Intelligence in Organizations - Research Clinic: Problem exploration and peer feedback (each PhD student will have 10 minutes to present a research problem, followed by 10 minutes feedback from peers and faculty in the course) <p>Social dining in Copenhagen (own payment)</p> |
| <p>Wednesday</p> | <p>Theme: Complex and multidisciplinary evaluation frameworks of the impact of digital health technologies</p> <ul style="list-style-type: none"> - Complex interventions - HTA (Health Technology Assessment) <ul style="list-style-type: none"> o Health technology o Clinical outcomes o Patient perception and acceptance o Organizational aspects o Health economic evaluation o Ethical aspects - Problem based & interactive learning - Research Clinic: Problem exploration and peer feedback (each PhD student will have 10 minutes to present a research problem, followed by 10 minutes feedback from peers and faculty in the course) <p>Evaluation of PhD course Reception & end of PhD course</p> |

Social program

Monday evening August 10

Guided tour of Copenhagen - get to know each other and explore Copenhagen together. We will go out after the tour for dinner (own payment).



Tuesday evening August 11

Social dining & networking in Copenhagen (own payment)



Course location

[Aalborg University Copenhagen](#), A. C. Meyers Vænge 15, 2450 Copenhagen, Denmark (DK)

Student tasks and ECTS

We will encourage students to read the literature before start of the course. Each student will have to prepare a three-page report of their project and will receive feedback from peers participating at the course and faculty.

ECTS points in total: 2,5

Course fee

The course fee is 3135 DKK / \$482 / €420. The fee includes participation in the course, breakfast, lunch, coffee, sweets, and water every day, tour de Copenhagen and reception.

Registration & Payment:

You have to register at this link and pay <https://www.events.aau.dk/event/ttrn26phd>

Deadline for registration

Deadline is June 15, 2026

Questions about the Ph.D. course

Please send an email to professor Birthe Dinesen at: bid@hst.aau.dk

/March 15, 2026