PROGRAM

INTERNATIONAL CONFERENCE BIT.LY/CPH2022

DIGITAL HEALTH BEYOND COVID-19 LESSONS LEARNED

AUGUST
29-30, 2022

AAU
COPENHAGEN

novo nordisk fonden

Thank you to the Novo Nordisk Foundation for supporting the conference

June 28 2022

1.0 Background

In 2016, the Transatlantic Telehealth Research Network (TTRN) published a vision paper on digital health entitled "Personalized Telehealth in the Future: A Global Research Agenda". The aim of the paper was to develop a strong evidence base of successful, innovative digital health solutions that could lead to scalable and sustainable digital health programs. The coronavirus outbreak was first reported towards the end of 2019 and was soon declared a pandemic by the World Health Organization. Due to the unprecedented COVID-19 pandemic, treating patients remotely is no longer a matter of convenience. Remote treatment has become imperative for digital health stakeholders, organizations, and providers. There is a vital need to understand and provide care in a safe and secure manner. For digital health to be effective, it needs to become a routinely used part of our health system. This requires change in management practices and a redesigning of existing models of care. Two key questions emerge: What have we learned so far about implementing new digital health technologies? And what lessons can be learned that we can use to improve digital health care? In this light, the TTRN are issuing this call for an international conference, to be held in collaboration with the International Society of Telemedicine & eHealth at Aalborg University, the conference to be held in Copenhagen, August 29-30, 2022. The Novo Nordisk Foundation is supporting the conference, enabling us to invite distinguished scholars to hold keynote speeches and to award grants to youngers researchers to participate in the conference. Hope to see you at the conference.

Target group

The target group of the conference are younger and senior researchers within the fields of healthcare and health management, healthcare professionals, and managers within the healthcare system, including private firms working within digital health throughout the world.

2.0 Aims of conference

- To present and share experiences on research on implementation of the newest digital health technologies and services in the healthcare sector during the COVID-19 pandemic;
- To identify, communicate and compare lessons learned on digital health beyond COVID-19;
- To identify knowledge gaps and challenges for further research within digital health beyond the pandemic;
- To identify potential opportunities for exchange of knowledge and research collaboration in the field of digital health;
- To provide younger researchers within digital health the opportunity to present their work to a broad range of international scholars and colleagues.

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3.0 Organization of conference

Professor Birthe Dinesen from Aalborg University (AAU) is head of the conference that has an organizing and scientific committee. Members of the two committees are listed below.

Organizing committee

- Professor Kristian Kidholm, CIMT, Odense University Hospital, DK
- Director David Lindeman, CITRIS Health, UC Berkeley, USA
- Associate Director Gale Berkowitz, CITRIS Health, CITRIS, UC, Berkeley, CA, USA
- Director Frederic Lievens, International Society for Telemedicine & eHealth (ISfTeH), Brussels, Belgium
- Professor Birthe Dinesen, Laboratory for Welfare Technologies – Digital Health & Rehabilitation, Sport Sciences -Performance and Technology, Department of Health Science and Technology, AAU, DK

Scientific committee

- Professor Kristian Kidholm, CIMT, Odense University Hospital, DK
- Professor Lars Dittmann, Department of Photonics Engineering, Networks Technology and Service Platforms, Danish Technical University, DK
- Professor Heather Young, Betty Irene Moore Nursing school, UC Davis, CA, USA
- Associate Chief Nursing Officer Nancy Albert, PhD, CCNS, CHFN, CCRN, NE-BC, FAHA, FCCM, FHFSA, FAAN, Office of Nursing Research and Innovation, Cleveland Clinic Health System & Adjunct Professor AAU
- Associate Director Gale Berkowitz, CITRIS Health, UC, Berkeley, CA, USA
- Associate Professor, Helle Spindler, Department of Psychology and Behavioral Sciences, Aarhus University, DK
- Professor Birthe Dinesen, Laboratory for Welfare Technologies – Digital Health & Rehabilitation, Sport Sciences -Performance and Technology, Department of Health Science and Technology, AAU, DK

4. Proceedings

All abstracts and posters will be published at Journal of Medical Internet Research (JMIR) and after the conference you will be able to get 20% in discount on submission of manuscripts for publication in JMIR.

Abstract that do not have scientific background will be published in a PDF file accessible at the conference site: https://www.labwelfaretech.com/ttrn/cph2022/

5. Find your way around Aalborg University (Copenhagen Campus)

With the AAU Map app, you can easily find your way to seminar rooms, work spaces, canteens, libraries and other relevant locations at Aalborg University, Copenhagen Campus. The app makes it easy to navigate around AAU - simply use the search function and let the app guide you to an address or a specific room.

How does AAU map work?
AAU Map resembles other navigation apps via GPS. You can search for addresses or specific room numbers at AAU, and once you have entered a location, the route is shown on a map that guides you from your current position to your desired destination.

Download the AAU map app at the Apple App Store or Google Play. Read more here: https://www.en.its.aau.dk/app/aau-map/

6. Evaluation of the conference

After the conference, all participants will receive an online questionnaire for their evaluation of the conference.

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PROGRAM

Venue: Building A, A.C. Meyers Vænge 15, Aalborg University, Copenhagen

Monday, August 29, 2022

Venue: Room 1.008, Building A

Chair: Birthe Dinesen, Professor & Head of Laboratory for Welfare Technologies – Digital Health & Rehabilitation, Sport Sciences - Performance and Technology, Department of Health Science and Technology, Aalborg University (AAU), Denmark (DK)

8.00 *Registration, coffee & tea*

8.30 *Welcome* by Birthe Dinesen, Aalborg University

8.40 *Digital Health in the future,* opening remarks by Lars Hvilsted Rasmussen, Dean, The Faculty of Medicine, AAU, DK

8.50 Keynote 1: *Structurally embedding and implementing digital health into current health systems,* by Frederic Lievens, Vice Executive Director, International Society for Telemedicine & eHealth (IsfTeH), Belgium

9.05 *Is the Covid-19 pandemic a game changer for use of digital health?* by Egon Toft, Head of Research, Aalborg University Hospital, DK

9.15 Break

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| 9.30 Track A: Methods in digital health

Chair: Helle Spindler, Associate Professor, Department of Psychology and Behavioral Sciences, Aarhus University, DK

Venue: Room 1.001 | 9.30 Track B: Physical activity, digitalization and the pandemic

Chair: Rogerio Pessoto Hirata, Associate Professor **of** Sport Sciences-Performance and Technology, Department of Health Science and Technology, AAU

Venue: Room: 3.084A (3rd floor) | 9.30 Track C: Impact of digital health during the pandemic

Chair: Lars Dittman, Professor, Department of Photonics Engineering, Danish Technical University, DK

Venue: Room: 3.084B (3rd floor) |
|---|---|---|
| **9.35** *Digital Health and Compassion during COVID-19 pandemic* by Jane Clemensen, Professor, HC Andersen's Children's Hospital, Odense University Hospital, DK | **9.35** *Combination of online and in-person training reduced fall accidents in older adults during COVID-19 pandemic,* by Rogerio Pessoto Hirata, Sport Sciences-Performance and Technology, Department of Health Science and Technology, AAU, DK | **9.35** *Impact of telemedicine during the Covid-19 pandemic - The experience of a private medical center in Romania* by Octavian Andronic, PhD, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania |
| **9.50** *Key Aspects to Boost Digital Health Solutions in Latin America* by Regina Morán Reséndiz Lead Researcher Movement Health 2030, Universidad Panamericana, México | **9.50** *Future Patient - Telerehabilitation of Patients with Heart Failure Empower patients*, by Birthe Dinesen Professor, Sport Sciences - Performance and Technology, Department of Health Science and Technology, AAU, DK | **9.50** *Impact of Digital Literacy levels of Healthcare Professionals on perceived quality of care* by Amitesh Khare, MBBS, Department of Hospital Administration, All India Institute of Medical Sciences, New Delhi, India |
| **10.05** *Integrating psychosocial aspects in digital solution* by Helle Spindler, Associate Professor, Department of Psychology and Behavioral Sciences, Aarhus University, DK | **10.05** *Exoskeletons in the digital era: A way to improve the level of physical activity among elderly citizens,* by Pascal Madeleine, Sport Sciences - Performance and Technology, Department of Health Science and Technology, AAU, DK | **10.05** *How did the Internet pass the COVID-19 test?* By Lars Dittman, Professor, Department of Photonics Engineering, Technical University of Denmark (DTU), DK |
| **10.20** *Systematic Approaches for Telemedicine and Data-coordination for COVID-19 in Baja California, Mexico* by Christian Castillo, PhD, School of Medicine and Psychology Autonomous University of Baja California, Mexico (video) | | |
| **10.35 Discussion** | **10.20 Discussion** | **10.20 Discussion** |
| **10.50 End of session** | **10.50 End of session** | **10.50 End of session** |

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10.50 Break

Venue: Room 1.008, Building A

11.00 Keynote 2: *Promoting healthy aging in a digital world* by Heather Young, Professor, Dean Emerita and National Director for the Betty Irene Moore Fellowship Program for Nurse Leaders and Innovators, University of California, Davis Health, CA, USA

11.30 Keynote 3: *Digital health for vulnerable populations: From co-design to scaling and replication,* by Gale Berkowitz, Associate Director CITRIS Health, CITRIS, University of California, Berkeley, CA, USA

12.00-12.40 Lunch & networking

12.40 Poster sessions. Venue: Rotunden

Chair: Kristian Kidholm, Professor and Head of Innovation, Center for Innovative Technologies (CIMT), Odense University Hospital, DK

Posters will be available in paper form at the conference. Each presenter will have three minutes for presentation and two minutes for Q & A. Here are the posters for presentation:

- *Design and development of an e-learning patient education program for self-management support in patients with rheumatoid arthritis* by Line Raunsbæk Knudsen RN, MCN, PhD student, Department of Rheumatology, Aarhus University Hospital & Department of Clinical Medicine, Aarhus University, DK
- *Concurrent validity of linear accelerations measured by a low sampling frequency accelerometer in elderly patients with knee osteoarthritis* by Arash Ghaffari, MD, PhD student, Interdisciplinary Orthopaedics, Aalborg University Hospital, Aalborg, DK
- *Video consultations in primary care outside office hours by* Mette Amalie Nebsbjerg MD, PhD student, Research Unit of General Practice, Aarhus University, DK
- *Technology-based innovative healthcare solutions for improving maternal and child health outcomes in LMICs: a systematic review and network meta-analysis* by Md. Obaidur Rahman MSc, Phd, Department of Global Health Nursing, Graduate School of Nursing Science, St. Luke's International University, Tokyo & Center for Surveillance, Immunization, and Epidemiologic Research, National Institute of Infectious Diseases, Tokyo, Japan
- *Musculoskeletal complaints in relations to physical activity and psychosocial aspects among university students. A prospective study investigating the COVID-19 lockdown* by Mia Schmidt Nielsen, MSc Student, Sport Sciences – Performance and Technology, Department of Health Science and Technology, AAU, DK
- *Deep learning algorithm identifies bleeding episodes in the electronic health record* by Rasmus Søgaard Hansen, Md, Phd student, Department of Clinical Biochemistry, Odense University Hospital, Odense, DK

Venue: Room 1.008, Building A

13.20 Keynote 4: *Telenursing and telemonitoring during and beyond the COVID-19 pandemic,* by Tomoko Kamei, Professor, St. Luke's International University Graduate School of Nursing Science, Tokyo, Japan

14.00 Break

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14.20 Track D: Methods in digital health	14.20 Track E: Digital Patient education	14.20 Track F: Impact of digital health during the pandemic
Chair: Frederic Lievens, Vice Executive Director, International Society for Telemedicine & eHealth	**Chair:** Nancy Albert, Associate Chief Nursing Officer, Office of Nursing Research and Innovation, Cleveland Clinic Health System and Clinical Nurse Specialist, Kaufman Center for Heart Failure, Cleveland Clinic, and Adjunct Professor Aalborg University	**Chair:** Gale Berkowitz, Associate Director CITRIS Health, UC, Berkeley, CA, USA
Venue: Room 1.001	**Venue: Room: 3.084A (3rd floor)**	**Venue: Room: 3.084B (3 rd floor)**
14.20 *Online consultations in mental healthcare: Modelling determinants of use and experience. An international survey study at the onset of the pandemic* by Kim Mathiasen, Assistant Professor, Department of Clinical Medicine, University of Southern Denmark & Centre for Digital Psychiatry, Mental Health Services of Southern Denmark, DK	**14.20** *Evaluation of a Tailored Digital Literacy Intervention in Affordable Senior Housing* by Pauline DeLange Martinez, PhD, Public Health Sciences Department, UC Davis, Davis, California, USA	**14.20** *Video Counselling and Safety Planning App to Support Pregnant Women Exposed to Intimate Partner Violence in Denmark and Spain during COVID-19* by Karen Andreasen, PhD student, Department of Gynecology and Obstetrics, Odense University Hospital, Odense, DK
14.35 *Bleeding symptoms in children admitted with medical diseases – a cohort study based on artificial intelligence* by Signe Biørn, Student in Medicine, Department of Clinical Biochemistry and Pharmacology, Odense University Hospital, DK	**14.35** *Challenges and Opportunities of Use and Adoption of Telemedicine in for Diabetes Care and Management During COVID-19 and Beyond* by Rabab Altabtabaei, BS, Department of Information Science, College of Life Sciences, Kuwait University, Kuwait	**14.35** *Database on Evidence Based Telemedicine in a Hospital Setting* by Ida Wagner Svendsen, Msc, Centre for Innovative Medical Technology (CIMT), Odense University Hospital, Odense, DK
14.50 *Measuring client satisfaction with digital services: Validity and reliability of the a short-form digital tool* by Henrik Pedersen, PhD student, Department of Mental Health, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology (NTNU), Trondheim & Nidaros Community Mental Health Centre, Division of Psychiatry, St. Olavs University Hospital, Trondheim, Norway.	**14.50** *Digital communication between patients and healthcare professionals across disciplines and sectors after hospital discharge: facilitators, barriers and effects* by Lilli Worre, RN PhD student, Interdisciplinary Orthopaedics, Aalborg University Hospital, Aalborg & Laboratory for Welfare Technologies – Digital Health & Rehabilitation, Sport Sciences - Performance and Technology, Department of Health Science and Technology, AAU, DK	**14.50** *Keeping Telehealth an Equalizer in the Age of COVID* by James Marcin, MD, MPH, Professor, Pediatric Critical Care & Director, Center for Health and Technology, UC Davis Health, CA, USA
15.05 Discussion	**15.05 Discussion**	**15.05 Discussion**
15.25 End of session	**15.25 End of session**	**15.25 End of session**

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Venue: Room 1.008, Building A

15.30 Keynote 5: *Advancing distance health – innovations wanted,* by Nancy M. Albert, Associate Chief Nursing Officer-Research and Innovation, Cleveland Clinic, USA

16.00-17.00 Reception, networking, and celebration of the *"10 years anniversary for TTRN"*

There will be short talks from key persons from the TTRN.

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Tuesday, August 30, 2022

Venue: Room 1.008, Building A

Chair: Birthe Dinesen, AAU

8.00 *Coffee and tea*

8.30 Keynote 6: *Telemedicine and remote rehabilitation for cardiac patients in the post COVID-19 era,* by Hiroyuk Daida, Professor, Dean, Faculty of Health Science, Jutendo University, Japan

8.45 Keynote 7: *Challenges for Danish hospitals in the digital transformation - and how we handle them in practice?* Professor Kristian Kidholm, Head of Innovation at Center Innovative Technologies (CIMT), Odense University Hospital, DK

9.00 Track G: AI and social robots	9.00 Track H: Methods in digital health	9.00 Track I: Entrepreneurship and innovation: the pandemic as a game changer
Chair: Lilli Worre Høpner Jensen, Ph.D. student, Interdisciplinary Orthopedics, Aalborg University Hospital & Laboratory for Welfare Technologies – Digital Health & Rehabilitation, Sport Sciences-Performance and Technology, Department of Health Science and Technology, AAU	**Chair:** Jane Clemensen, Professor, HC Andersen's Children's Hospital, Odense University Hospital, DK	**Chair:** David Lindeman, Director CITRIS, UC Berkeley, CA, USA
Venue: Room 1.001	**Venue: Room: 3.084A (3rd floor)**	**Venue: Room: 3.084B (3rd floor)**
9.05 *"Hi, Robot"- social robots for elderly care during COVID-19* by Birthe Dinesen, AAU, DK	**9.05** *Video consultations in general practice: tendencies and lessons learned from the first COVID-19 lockdown period* by Elisabeth Assing Hvidt, MA, PhD, Research Unit of General Practice, Department of Public Health, University of Southern Denmark, DK	**9.05** *How can universities use surrogate entrepreneurs to foster more innovation and entrepreneurship?* by Argyro Nikiforou, Assistant Professor, DTU, DK
9.20 *Telehealth frontiers: social robots in developmental and behavioral pediatrics"* by Veronica Ahumada, Director of the Technology and Social Connectedness Lab, UC Davis & Assistant Professor, Department of Pediatrics, UC Davis, CA, USA	**9.20** *Effectiveness of Telegenetic Counseling for People with Suspected Hereditary Cancer and Families: A Systematic Review* by Yuriko Shibuya, RN, MSN, St. Luke's International University, Japan	**9.20** *Hospitals as Innovation Hubs,* by Valeri Daussin, senior commercial project manager, Aalborg University Hospital, The North Denmark Region, DK
9.35 *Testing the social robot LOVOT´s interaction with mentally impaired/autistic adults: preliminary findings* by Laila Gregersen, Development Consultant, Team Strategy and Development, Jobs and Welfare, Aalborg Municipality, DK	**9.35** *Out of adversity comes opportunity: Smart-Colpo national program for elimination of carcinoma cervix in post COVID-19 world* by Dr. Anjali R1 MS, DNB, Senior Resident, Department of Obstetrics and Gynecology, All India Institute of Medical Sciences, New Delhi, India	**9.35** *The Covid-19 pandemic as a gamechanger within Digital Health* by to be announced
9.50 Discussion	**9.50 Discussion**	**9.50 Discussion**
10.20 End of session	**10.20 End of session**	**10.20 End of session**

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10.20 Break

Venue: Room 1.008, Building A

10.40 Keynote 8: *Global Digital health Innovation during COVID-19: Lessons from Lighthouse and ACTIVATE,* by David Lindeman, Director Health, CITRIS, University of California, Berkeley, CA, USA

10.55 *Tele-palliation - a new way forward for palliative care?* by Jarl Voss Andersen Sigaard, consultant, PhD student, Hanne Aagaard Christensen, RN, Sanne Broch Skov, RN Palliative Team, Hospital Southwest Jutland, Esbjerg, DK

11.10 Keynote 9: *Experiences with digital health during COVID-19 in Denmark,* by Morten Elbæk Petersen, CEO Sundhed.dk and Q &A

11.40-12.40 Lunch and networking

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Make your choice after lunch and attend the poster session or the roundtable discussion, please see below.

12.40 Poster sessions: Venue: Rotunden

Chair: Kristian Kidholm, Professor & Head of Innovation at Center Innovative Technologies (CIMT), Odense University Hospital, DK

Posters will be available as hard copy at the conference. Each poster presenter will have 3 minutes for presentation and 2 minutes for Q & A. Here are the posters for presentation:

- *Home Based monitoring with Thermography for detection of postoperative infection* by Marie Fridberg, MD, PhD student, Interdisciplinary Orthopaedics, Orthopaedic Surgery Department, Aalborg University Hospital & Department of Clinical Medicine, AAU, DK
- *Identifying parental needs when caring for a child or adolescent with cancer: a participatory design study* by Camilla Littau Nielsen RN, MHS, PhD student, Hans Christian Andersen Children's Hospital, Odense University Hospital, Odense & Department of Clinical Research, Health, Sciences, University of Southern Denmark, Odense, DK
- *Reliable IoT for Healthcare Technologies* by Kalpit Dilip Ballal, PhD student, Department of Electronics and Photonics Engineering, Technical University of Denmark & Laboratory for Welfare Technology – Digital Health & Rehabilitation, Sport Sciences - Performance and Technology, Department of Health Science and Technology, AAU, DK
- *The Heart Game: a new tool for digital patient education for patients with Heart Failure* by Lisbeth Gade Hamborg, MSc & Rikke Jankuhn Petersen, MSc, Laboratory for Welfare Technology- Digital Health & Rehabilitation, Sport Sciences -Performance and Technology, Department for Health Science and Technology, AAU, DK
- *Opportunities and limitations when using telepresence robots for primary school students with school absences by Lahila Fanta Diab,* Laboratory for Welfare Technology- Digital Health & Rehabilitation, Sport Sciences -Performance and Technology, Department for Health Science and Technology, AAU, DK
- *Concurrent validity of linear accelerations measured by a low sampling frequency accelerometer in elderly patients with knee osteoarthritis* by Arash Gaffari, Interdisciplinary Orthopaedics, Aalborg University Hospital, Aalborg, DK
- *Digital Health: learnings form clinical trials before, during and after COVID-19* by Jacob Guy Diemar, Senior Digital Health Associate, Digital Technologies, Lundbeck, DK

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12.40 Round table: *The pandemic, digitalization, and equality for health*

Venue: Room 1.001

Moderator: Nancy M. Albert, Associate Chief Nursing Officer-Research and Innovation, Cleveland Clinic, USA and Adjunct Professor at AAU, DK

- Heather Young, Professor, Dean Emerita and National Director for the Betty Irene Moore Fellowship Program for Nurse Leaders and Innovators, University of California, Davis Health, CA, USA
- Frederic Lievens, Vice Executive Director, International Society for Telemedicine & eHealth, Belgium
- Helle Spindler, Associate Professor, Department of Psychology and Behavioral Sciences, Aarhus University, DK
- Gale Berkowitz, Associate Director CITRIS Health, CITRIS, University of California, Berkeley, CA, USA
- Hiroyuk Daida, Professor, Dean, Faculty of Health Science, Jutendo University, Japan
- Egon Toft, Head of Research, Aalborg University Hospital, DK

13.40 Break

Venue: Room 1.008, Building A

14.00 Panel discussion: *Digital Health on Prescription*

Moderator: Andreas Pihl, MD, Roche Diagnostics A/S

- Jesper Grønbæk, Founder & CEO Health Tech Hub Copenhagen, DK
- Michael Hejmadi, Specialist Family Medicine, Cofounder CMO Fiona Locker. Writer of Last Doctor Standing. Innovator, DK
- Gunnar Gislason, Head of Research the Danish Heart Association, Clinical Professor in Cardiology, Copenhagen University Hospital Gentofte, DK

14.45 Closing discussion: *Digital health beyond COVID-19: What are the lessons learned? What are future research areas?* By David Lindeman, Nancy Albert, Kristian Kidholm and Birthe Dinesen

15.15 Reception and Networking

15.45 End of conference

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Facts about the conference

Financial support for the conference has been provided by Novo Nordisk Foundation.

Q&A
For questions about the conference please contact:

- Research Assistant Emma Thunbo Hansen, AAU email: emmath@hst.aau.dk and mobile +45 22340055

- Professor Birthe Dinesen, AAU email: bid@hst.aau.dk and mobile +45 20515944

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