

Preface

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AI4Function: A New Interdisciplinary Community

Artificial intelligence (AI) technologies are increasingly applied to drive innovation and improve care in diverse areas of medicine. In recent years, new areas of research have emerged at the intersection of AI technologies and the measurement and optimization of functional outcomes, with developments such as: (1) the use of wearable sensors to capture physical function; (2) natural language processing to analyze clinical observations of function; and (3) the development of AI-driven assistive technologies. These innovations have largely developed independently of one another, without the benefit of a common venue for researchers to share insights and exchange ideas about AI for function across disciplinary boundaries.

The First Workshop on Artificial Intelligence for Function, Disability, and Health (AI4Function) was organized to bring together members of the AI and health communities interested in function to chart the course of this emerging area of research. Authors were invited to submit both original research papers, for publication in the workshop proceedings, and abstracts describing work in progress or published elsewhere, for presentation in the workshop.

Nine submissions were made to the workshop, of which seven were selected after rigorous peer review for inclusion in the workshop. These proceedings include the five original research papers accepted for publication in AI4Function 2020.

The workshop was originally scheduled to be held in Yokohama, Japan, in July 2020, co-located with the 2020 International Joint Conference on Artificial Intelligence - Pacific Rim International Conference on Artificial Intelligence (IJCAI-PRICAI 2020). Due to the COVID-19 pandemic, we delayed the workshop to January 2021, held in a virtual format together with the host conference.


First Workshop on Artificial Intelligence for Function, Disability, and Health (AI4Function 2020), July 07–08, 2021, Online

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 CEUR Workshop Proceedings (CEUR-WS.org)

The workshop was held on January 7th and 8th, 2021. In addition to the papers included in these proceedings, the program included:

- Presentation of two abstracts: “Challenges of developing a natural language processing method with electronic health records to identify persons with chronic mobility disability,” by Nicole Agaronnik, Charlotta Lindvall, Areej El-Jawahri, Wei He, and Lisa Iezzoni; and “Building a Mobility Dictionary for Whole-Person Functional Assessment,” by Ayah Zirikly, Bart Desmet, Denis Newman-Griffis, Pei-Shu Ho, Jonathan Camacho Maldonado, Maryanne Sacco, and Julia Porcino.
- A keynote presentation from Dr. Hongfang Liu (Mayo Clinic).
- A panel discussion regarding next steps and future directions for AI research in function, disability, and health.

Program Committee

- Steven Bedrick, *Oregon Health and Science University*
- Jonathan Camacho Maldonado, *National Institutes of Health Clinical Center*
- Guy Divita, *National Institutes of Health Clinical Center*
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- Sunghwan Sohn, *Mayo Clinic*
- Robert Stewart, *King’s College London*
- Sumithra Velupillai, *King’s College London*

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