PROGRAMME

Date: 27/09/2022

Time: 12.00-18.00 hrs

Location: Omnia, Wageningen Campus

12.00-13.00	Drinks & bites, networking interaction with demos
13:00-13:15	Welcome & Introduction to AI for Health and Preventive Health working groups of the EWUU alliance
13:15-13:40	Keynote speaker Maarten van Smeden, Associate Professor at the Julius Center for Health Sciences and Primary Care (UMCU): "Guideline for high-quality diagnostic and prognostic applications of AI in healthcare" - Presentation & Q&A
13:40-14:05	Sander Bakkes, Assistant Professor and Game Researcher at the Faculty of Science (UU): "AI in games for health" - Presentation & Q&A
14:05-14:30	Lydia Afman, Associate Professor Human Nutrition & Health (WUR): "It is digital twin: Me, My Diet and I" - Presentation & Q&A
14:30-14:55	Masi Mohammadi, Professor Smart Architectural Technologies (TU/e) and Scientific Director at DEEL Academy: "Smart healthy neighbourhoods" - Presentation & Q&A
14:55-15:30	Break with bites and drinks, networking and interaction with demos Read below about the demos!
15.30-17.00	Parallel breakout sessions:

Breakout session 1: Utrecht AI Labs - AI for Healthy Living

Facilitator:	Laurence Frank, liaison officer AI for Health, EWUU
Short description:	This session shows how the Utrecht AI Labs are set up and organised. Next, some projects of one of the labs, AI for Healthy Living, are presented.
Presenters:	• Thomas Dohmen, Director Utrecht AI Labs (UU) • Dr. Hanna Hauptmann, Researcher and coordinator of the AI Lab for Healthy Living (UU)

Breakout session 2: AI research, development and implementation in the healthcare setting

Facilitator:	Harry Pijl, Program Manager Board of Directors UMCU
Short description:	Artificial intelligence (AI) and machine learning solutions are transforming the field of healthcare. Healthcare institutes have accumulated vast data sets in the form of health records and images, population data, and clinical trial data. AI technologies are well suited to analyse this data and uncover patterns and insights that can be used to both optimize and

improve the healthcare of today and in the future. Let our presenters take you through a cross section of AI developments in the hospital setting.

Presenters:
- Sam van Beuningen, Senior Researcher / Jeffrey Beekman, Prof. Cellular models (UMCU)
- Eline de Groot, PhD Student in Neonatology department (UMCU)
- Teus Kappen, Chief Science Information Officer/ Anesthesiologist (UMCU)

Breakout session 3: Leveraging AI for healthy and sustainable living and society

Facilitator: Martine van der Mast, Programme Director of Institute for Preventive Health , EWUU

Short description: AI could play a crucial role in addressing the most fundamental challenges of our society. Get examples from our presenters on the role that AI could play, and is playing, in achieving healthy and sustainable living and society.

Presenters
- Guido Camps, Senior Researcher at Human Nutrition & Health (WUR)
- Spencer Moore Jr., Chair and Professor at Health and Society (WUR)
- Ricardo da Silva Torres, Professor in Data Science and Artificial Intelligence of Wageningen Data Competence Center (WUR)
- Alexander Klippel, Chair of the Laboratory of Geo-information Science and Remote Sensing from Environmental Sciences Group (WUR)

Breakout session 4: The Future and the Now of the Healthcare, and the challenges on the way in between

Facilitator: Dasha Alexeeva, TU/e programme manager & liaison officer at AI for Health and Institute for Preventive Health, EWUU

Short description: The presenters of the session will provide deeper insights into the digital twin technology as a game changer for healthcare and will talk about the existing challenges at the panel discussion.

Presenters:
- Shane O'Seasnain, Director Program Board EAISI (TU/e)
- Shauna O'Donovan, Assistant Professor, Biomedical Engineering & Computational Biology (TU/e)
- Theo Arentze, Professor, Built Environment (TU/e)
- Lydia Afman, Associate Professor Human Nutrition & Health (WUR) will take part in the panel discussion

Breakout session 5: Inclusive training datasets for text mining purposes

Facilitator: Rens van de Schoot, Professor at UU and coordinator of the SIG on Active Learning

Short description: Using three use-cases, (ASReview, OpenAlex) the presenters will demonstrate the importance of high-quality training data for text mining purposes. The discussion will focus on the importance of inclusive training datasets covering more than just the western world. Jointly we will establish a set of requirements for inclusive training data.

Presenters:
- Ayoub Bagheri, Assistant Professor in the area of Applied Data Science (UU)
- Jelle Teijema, Maintainer of Makita, an open-source simulation toolkit for text mining (UU)
- Tijmen Altena, CTO IDfuse/Impacter
- Anastasia Giachanou, Assistant Professor in the area of Applied Data Science (UU

17:00-17:15 Break with drinks

17:15-17:30 Closing words

17:30-18:00 Drinks, networking and interaction with demos

About the demos

During the Summit on Ai and Predictive Health, three demos will be showcased:

Eindhoven University of Technology (TU/e)
Demo with a real-time simulation of the human body in virtual reality (VR).
Put on the VR-headset and give it a spin!

This demo will allow everyone to freely navigate and explore an anatomically accurate 3D-model of the human body, its organs, and its natural function in a fully immersive 3D environment. The demo is collaboration of Sharecare and Biomedical Engineering department of the TU/e and shows how AI and immersive technologies can contribute to exploratory healthcare knowledge for educational purposes.

Utrecht University (UU)
The Active Learning for Systematic Reviews (ASReview) project, published in Nature Machine Intelligence, implements different machine learning algorithms that interactively query a researcher screening textual data with a minimum of records to be read by a human. ASReview LAB will save time, increase the quality of output and strengthen the transparency of work when screening large amounts of textual data to retrieve relevant information. The tool is used often by medical specialists to aid their work. One example we often give is the people at the Kinderformularium, who use the tool to quickly update their dosage recommendations which is based on screened records.

Wageningen University & Research (WUR)
The bite counter is an algorithm to count bites from meal video recordings automatically. The current standard method is manual video annotation, which is time-consuming and prone to errors. The bite counter aims to assist researchers in analyzing their data more quickly while providing more objective measurements. In the future, automatic analysis will expand eating behavior research and allow real-time interventions to promote healthy eating behaviors.