Mental Health and AI, Budapest, November 27, 2024
Report

The international hybrid workshop on *Mental Health and Artificial Intelligence (MEHAI)* was held on November 27, 2024, with the support of the Active Assisted Living (AAL) Programme, the Faculty of Electrical Engineering and Informatics (VIK) at BME, as well as the HCAIM, PANORAIMA, and AI EDIH projects.

The workshop featured 16 presentations (one of which was online) across five sessions:
- Prevention and early detection of mental decline
- Needs and opportunities for digitalization
- Solutions and further possibilities with AI
- Human-centred AI
- EU's AI Act and its impacts

On the workshop website https://hcaim.bme.hu/events/mental-health-and-ai/, the full program is available in English and Hungarian. Except for one, all presentations were held in English.

A total of 139 participants registered for the free event in advance, with 86 opting for in-person attendance and 53 for online participation. According to attendance sheets and screenshots, 62 people attended in person, and around 20 participated online. Among the in-person attendees were two foreign students studying in Hungary, while approximately half of the online participants joined from abroad.

The event was opened by Professor Sándor Imre, Dean of BME VIK. He recalled that research and education in machine learning began at the Faculty around forty years ago, and health engineering education started thirty years ago. Over the past decades, faculty staff and students have been engaged in numerous projects, ranging from early expert systems to imaging, modelling, and the measurement and preservation of mental health. These projects have contributed to the research and development of methods and tools that aid medical diagnostics and therapy. The rapid development of artificial intelligence (AI) in recent years has given these efforts tremendous momentum, presenting enormous opportunities as well as significant risks. Therefore, in addition to technical and scientific knowledge, the Faculty places increasing emphasis on the human aspects of AI applications, particularly within the framework of the Human-Centred AI supplementary master's program (HCAIM).

In the first session, presenters – physicians – discussed the importance and possibilities of preventing and detecting mental decline early, as well as the significance of digital solutions, including AI applications. The second session covered the needs for digital solutions in elderly care, as presented by social service professionals, and ongoing developments of applications designed to support online screenings and diagnostics. The third session featured presentations on research and development efforts utilizing machine learning and AI to aid in diagnosing mental decline. The fourth session focused on the human aspects of AI applications, including ethical considerations and the education of these aspects. Presenters also reviewed the outcomes of the recently concluded HCAIM project and the objectives of the upcoming PANORAIMA project. The final, fifth session included two presentations on the European Union's AI Act and its implications, while the third

presentation introduced the AI EDIH project, which offers free training for SMEs and public institutions.

During the breaks, participants had the opportunity to test the MentalFitness application. Discussions were held with several attendees regarding the usability of the MentalFitness application in various contexts, such as general practitioner offices, senior clubs, home environments, preventive purposes, and impact assessments. In some cases, new professional connections were established.

Presentations and images of the event can be accessed on the workshop website:

Presentations – Photos – Screenshots

Professor Sándor Imre, Dean of BME VIK

The audience and dr. Béla Pataki

Katalin Mátics, Head of Social Services in Újbuda

… and the audience

Dr. Ákos Szőke, Multilogic

… and the audience