FEATURED JH AITC GRANT YEAR 1 Awardee:

Suppose you visit a clinic because you feel your memory isn’t as good as it used to be. You might undertake a cognitive function test or an MRI scan of your brain and be told that the results are “normal.” This perceived memory loss may still be a predictor of dementia onset even before the MRI is sensitive enough to pick up changes. A Johns Hopkins team at the Richman Family Precision Medicine Center of Excellence in Alzheimer’s Disease, in collaboration with experts from the Johns Hopkins Applied Physics Laboratory, is working to increase measurement accuracy from information available via MRIs to make more robust predictions. The team used machine learning to identify brain features in an MRI scan that predict future cognitive decline. When this machine learning model was applied to brain scans from patients from the JHU memory clinic, it successfully predicted cognitive decline two years later. The team will delve deeper into electronic medical records to identify individual risk factors for future cognitive decline with the goal of identifying patients at high risk and targeting interventions to prevent or delay dementia onset. The use of MRI scans coupled with data from electronic medical records will not just benefit the patients directly in the clinic, but also aid healthcare providers examining and monitoring them and drive insights that pharmaceutical companies may use in the development of dementia-preventing drugs. Information about the Richman Center can be found at https://www.hopkinsmedicine.org/inhealth/alzheimers.

TECHNOLOGY IDENTIFICATION AND TRAINING CORE:

The goal of the Johns Hopkins University Technology Identification and Training Care Core (JHU TITC) is to develop a science of translation of artificial intelligence for older adults by developing processes that identify and articulate the needs of older adults and their family caregivers, connect those needs to promising areas of AI/technology, and accelerate the refinement of these opportunities into tangible products that can be translated into practice. The JHU TITC works closely with the Stakeholder Engagement Core (SEC) to (1) identify promising AI/technology opportunities that can drive the solicitation and funding of pilot grants to support older adults and caregiver needs, and (2) disseminate stakeholder-informed knowledge through training tools to address the needs of older adults and their family caregivers through research and education programs. The JHU TITC has been active in reviewing the breadth of grant applications to our institution to identify key domains addressed and opportunities for further research. The JHU TITC also collaborates with the SEC to develop tools to identify older adult and caregiver needs and beliefs regarding the use of AI/technology to enhance their well-being.

The JHU TITC recently participated in the first meeting of TITC leaders across all three AITC sites. There was fruitful dialogue regarding the development of shared language for the categorization of AI/technology approaches. The leaders discussed planning for the a2 Collaborative Symposium for next year and participated in a robust discussion on the ethical implications of generative AI, particularly regarding concerns about its impact on populations living with cognitive impairment.

MONTHLY WEBINARS

For July, a prerecorded session is offered, featuring Dr. Phillip Phan presenting “Pitching Your Venture.”

It can be viewed at https://aitc.jhu.edu/monthly-webinars/ or by scanning the QR code below.

For August, Chris Chute will present “Data Sharing Vision.” Register for his talk by scanning the QR code below.

UPCOMING EVENTS

Deadline for preliminary applications for the Third Annual a2 Pilot Awards: July 31, 2023

Learn more at https://www.a2collective.ai/pilotawards or by scanning the QR code below.