



Category: Clinical Application of Technology

Workshop Title: Cognitive Rehabilitation for Dementia

Workshop Organizer(s): Arlene Astell

In person Speaker(s):

- Desai, Shital, York University
- Michaud, Rochelle, person living with early dementia

Virtual Speaker(s): TBA

Workshop Time: 08:15 - 09:45

Attendee Engagement: The workshop uses active learning to engage participants in addressing the two challenges proposed by the facilitators: how to leverage retained cognition of people with dementia and how to measure meaningful impact of digital cognitive rehabilitation for people with dementia. The workshop comprises a mix of whole group and small group activities, cutting across disciplinary boundaries to explore new ways of thinking and looking at existing digital functionality to rehabilitate cognition of people with dementia.

Abstract:

Dementia is a progressive neurological disorder, characterized by cognitive deterioration. Cognitive loss interferes with individual's ability to carry out everyday activities and remain independent. Maintaining people with dementia at home could reduce demands on family and health services. Technological innovations to optimize both cognition and functional abilities are urgently needed. This workshop explores two key issues in developing digital rehabilitation interventions with and for people living with dementia: leveraging maintained cognitive abilities; and measuring the impact of rehabilitative interventions.

1. To be beneficial technological interventions for dementia must optimise spared cognitive abilities. Crucially, rehabilitation efforts must not place excessive cognitive demands on the user. Specifically, the user must be able to access and interact with rehabilitation devices with minimal learning and cognitive load. In the first part of the workshop, participants will work in small groups to examine how existing technologies (e.g. tablets, mixed reality technologies) can be leveraged to meet the needs of people with dementia.

2. The other major challenge when working with people living with dementia is measuring the impact of rehabilitation interventions. While multiple cognitive tests exist for clinical and experimental applications, measuring cognition in the wild is less developed. The small groups will work with their examples from part (i) to iteratively consider: What meaningful impact would look like; What could realistically be measured; and How to go about measuring the identified impact. Participants will be guided to look beyond their traditional disciplinary boundaries and share ideas within their small groups and the larger workshop. By the end participants should:

Understand what meaningful impact of rehabilitation technologies means for dementia.

Have ideas for how to measure the impact of rehabilitation technologies for dementia.