

Dementia and Technology

Digital tools to support people with mild cognitive impairment or dementia at work E. Dixon, L. Gilman, K. Sakalidis, V. Owen, A. Astell. *Gerontechnology* 25(s)

Purpose Younger people who develop dementia or mild cognitive impairment (MCI) are usually still in the workforce when their cognitive changes start. Difficulties in the workplace frequently lead to people losing their jobs before diagnosis or soon after [1]. However, people with progressive cognitive disabilities are entitled to reasonable accommodations under Article 27 of the UN Convention on the Rights of People with Disabilities (UNCRPD). Existing digital tools could support various aspects of cognition and empower individuals to stay in the workplace, but little is known about their use by this population [2]. The aim of this study is to explore workplace challenges, identify where digital tools could be helpful, and test a prototype recommender system to match workplace needs to digital tools. **Method** The study comprises three parts. In Part 1 we conducted a one-hour, semi-structured interview with 11 people with Subjective Cognitive Decline, Mild Cognitive Impairment or early stage dementia to investigate the declarative knowledge, procedural skills, and strategies that direct their work performance, Part 2 comprised a step by step analysis of the task flows and critical points within those task flows for which the 11 participants would like support from assistive technology. We conducted reflexive thematic analysis of the data from Parts 1 and 2 and from these findings built a prototype technology recommender which we are testing in Part 3. Ten new participants are each completing a modified task flow analysis to inform their interactions with the recommender. Participants receive the recommended device and are trying these for three months, followed by an interview about their experiences of the recommender and the technology. **Results and Discussion** Participants in Parts 1 and 2 worked in a diverse range of jobs including manufacturing engineer, lawyer, free-lance writer, and chef. In addition to outlining specific workplace challenges each faced, the following themes emerged from the interviews: a) eagerness and competency of participants to self-explore emerging artificial-intelligence (AI) tools to accommodate challenges in their work; b) the lack of in-the-moment adjustability of these AI tools to their fluctuating abilities; and c) concerns that the use of these tools reveals the extent of their changes in abilities, amplifying self-consciousness and leading to abandonment of potentially useful tools. Part 3 data collection is currently underway with 7 participants, further 3 are being recruited and will be completed by May 2026. Overall, the findings from Parts 1 and 2 reveal that in the absence of employer provided accommodations, individuals are using digital tools, including AI to self-manage their cognitive disabilities. Part 3 data will provide insights into the usefulness and potential utility of a technology recommender for connecting employees with dementia or MCI with digital tools that could be adopted in the workplace.

References

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