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Exploring a Gap in Self-Aware Aging: A Perspective from Embodied Information Science (Lightning Talk)

Abstract or Résumé:

A plethora of information is available regarding *healthy aging* lifestyle choices and how to adapt to lifestyle changes that are associated with aging. Preliminary literature review findings suggest that there is a gap in the informational landscape regarding information services that can help older adults understand, on their own, where they are on their highly individualized life's journey; these services would include information on how to navigate challenges regarding maintaining an independent lifestyle and potentially losing the ability to make informed decisions.

1. Introduction

Promoting the idea of what is commonly called *healthy aging* (e.g., NIA 2022), government agencies, not-for-profits, and commercial entities (including health insurances and aged care providers), encourage older adults to engage in activities associated with healthy aging lifestyle choices (e.g., NIH 2022). This includes emphasizing the importance of nutrition, physical activity, cognitive activity, and social engagement in the community. Advice on strategies to effectively navigate and adapt to health changes that are typically associated with aging is also commonly provided. Mayo Clinic (2023), for example, highlights nine to-be-expected changes in older adults' bodies, including changes to cognitive health.

Anecdotal evidence from a variety of sources including personal experiences in caring for family members, conversations with people who care for aging relatives, and conversations with professionals who are involved in organizing or delivering aged care, suggests that there is a gap in the aging-related informational landscape related to helping older adults understand where they are on their life's journey given that aging "*is a highly individualized process and is influenced by lifelong factors that shape the entire course of a person's development*" (Diehl & Wahl, 2010, p. 348). We are exploring this gap as information scientists who are interested in embodied cognition and embodied information behavior (Lueg, 2014). In a nutshell, "*cognition depends upon the kinds of experience that come from having a body with various sensorimotor capacities [and] these individual sensorimotor capacities are themselves embedded in a more encompassing biological, psychological and cultural context*" (Varela et al 1991). The embodied cognition perspective may help us understand how the fact of an aging body relates to older adults evolving perception of themselves. From a *scaffolding minds* point of view (Clark, 1997), family, friends, neighbors, and support services helping an older adult with everyday tasks may be interpreted as a kind of (reverse) scaffolding.

2. Methods

We are conducting comprehensive literature searches to determine the information available for older adults interested in self-aware aging. The searches are across scholarly databases that include the National Library of Medicine, IEEE Xplore Digital Library, ScienceDirect, Scopus, and Library & Information Science (EBSCO). Newspaper and magazine articles from The New York Times, Time Magazine, The Washington Post, Forbes. Sources like the Pew Research Center are

also screened for relevant articles. We also cover websites of government agencies, insurance companies, retirement communities, and healthcare clinics that specialize in aging. We employ keyword searches and qualitative methods to extract relevant articles from the sources mentioned. The search criteria focus on discussions of technologies, systems, services, and programs helping aging adults understand and track their changing bodies, and how to navigate potential effects of these changes. Literature searches also include the dynamics of power in digital health and care technologies (Dalmer et al 2022). Articles that meet the criteria are extracted for further analysis.

3. Preliminary Findings and Outlook

Ample scientific and other information about the aging process and the prospect of *healthy aging* is readily available. Older adults' perceptions and awareness of their age and the aging process are a topic of theoretical and empirical inquiry in social gerontology, life span psychology, and life course sociology (Diel et al., 2021). Findings from our ongoing literature review suggest that there is a gap in information services that an older adult could use *on their own* to understand where they are on their highly individualized aging journey, and to *gauge where they are in life* and how they could prepare for a potential future where physiological and cognitive decline may lead to the inability to make informed decisions with regard to their livelihood and care. We see this as a challenge for information scientists who work in areas including human information behavior, human-centered design of smart technologies, privacy, and health services.

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