The Preservation of Self-Image: Understanding the Technology Adoption Patterns of Older Adults

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Key Messages

1. Self-image has a direct impact on older adult's decision-making about technology. Older adults have a desired self-image of independence, competence, and self-reliance. However, many devices created for older adults continue to be abandoned due to the negative messages projected by these devices, including loneliness, dependence, and disability. Therefore, the design of current and future technologies must incorporate the perceptions, needs, and values of older adults to ensure that devices being created for this population promote self-images that are congruent with their desired identity.

2. Many older adults choose to reject or abandon a technology as a way to resist the negative reality of an aging or disabled identity. However, this can result in a person rejecting a technology that could potentially benefit them, e.g. mobility aid. To enable these individuals to accept their changing situation, older individuals and services must collaborate to ensure that recommended devices are addressing the individual's physical and social needs. This includes working collaboratively to choose a device that is the best fit for the individual and ensuring that the device continues to support their daily lives by regularly assessing the device's impact on the individual's physical and social well-being.

3. Overall, there is a clear misalignment between dominant social perceptions of aging and how older adults view themselves. As such, many devices are being created for older adults based on stereotypes and misconceptions. To mitigate some of these misconceptions and increase the adoption of potentially helpful technologies, it is recommended that devices are being commercialized or represented in a way that does not highlight negative stereotypes of aging or stigmatize device users.

4. There is a marked incongruence between the way key stakeholders perceive older adults and the way older adults perceive themselves. Therefore, it is crucial to inform decision-makers (e.g. developers, practitioners, policy developers, industry, etc.) of the findings of this scoping review to dispel misconceptions and raise awareness of the desirable identity of later life. It is also necessary that all stakeholders work collaboratively to incorporate technology into policy, health and social care practice, and infrastructures to support the current and future needs of older adults.

5. Aesthetics play an important role in older adult's decisions about stechnology, with devices that look fashionable or unobtrusive taking precedence over devices that look 'too medical'. To harness this preference, it is recommended that designers focus efforts on creating devices that are more aesthetically pleasing, including the option to personalize devices (e.g. custom colors).

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Executive Summary

This scoping review examines older adult's decision-making regards to technology adoption and how this is influenced by a desire to preserve and portray a self-image consistent with competence, independence, and self-reliance.

The findings confirm that self-image has a direct impact on the technology decision-making patterns of older adults; a relationship which provides further insight into why technology adoption rates are relatively low for older adults despite the rapid development of technologies/devices created for them. Technologies that do not support the desired identity of older adults, such as devices that reinforce an image of dependence, loss of control, disability, illness, oldness, or frailty are rejected because older adults do not perceive themselves as potential users of these devices, nor do they want to be associated with these negative connotations of aging.

Technology is crucially important in future service delivery for the aging population; therefore, the implications of this research are broad and apply to several different decision makers, all of whom are responsible for the present and future needs of older adults. These stakeholders include: older adults themselves, formal and informal caregivers, health care services, social care services, makers of technology, infrastructure markets, policy developers, and researchers.

The increasing proportion of older adults (i.e. the aging demographic shift) presents both new challenges and new opportunities for many sectors of society, including developing new products, services, environments, policies, and infrastructure to support the current and future needs of older adults. This includes the creation of versatile and innovative technologies that support older adults to live and age well.

However, the complex processes behind an older adult's decision to adopt (i.e. accept and regularly use) or abandon (i.e. reject or no longer use) technology remain underexplored, resulting in technologies not

being adopted at the rate at which they are being created. A large gap in the current body of literature concerns aspects of the decision-making process and other important factors relating to the individual, such as the messages conveyed by using these devices, how potential users feel about using these technologies in their daily lives, concerns about maintaining control and independence, lack of involvement in the decision-making process, and difficulty adjusting to or accepting their changing situation.

The authors identified five themes that help to clarify older adults' decision-making process regarding technology adoption as influenced by their desire to preserve and portray a self-image consistent with competence, independence, and self-reliance. The themes include: (1) independence and control is key; (2) assistive technology as a last resort; (3) the aesthetic dimension of usability; (4) perceived threats to self-image; and (5) resisting the negative reality of an aging and/or disabled identity.

(1) The valuing of independence is reinforced in our society through positive aging discourses where 'success' is framed as being self-reliant and in control of ones' lifestyle choices and behaviours. For many of the participants, the desire to remain independent was of the utmost importance, framing this as a cultural norm and an essential goal of aging well. Therefore, for many, threats to independence resulted in resistance to technologies that would otherwise help older adults function independently and safely in their communities.

(2) Many participants acknowledged that they would eventually consider adopting assistive technology, but only if no other choices were available to ensure their continued participation in meaningful activities. Older adults commonly acknowledged that although they were not presently using assistive technologies, they would, in the future, if they were to become "handicapped", "sick", "incapacitated", "lonely" or "demented"; all of which are terms that depict the negative connotations older adults commonly associate with the use of assistive technology.

(3) Aesthetics are an important dimension of usability that have the potential to directly influence older adults' decision-making regarding technology acquisition and use. Overall, participants across the studies included in this scoping review, conveyed the importance of 'non-medicalized', 'youthful', 'unobtrusive', and 'fashionable' technologies that do not otherwise provide obvious indicators of disability, decline, or dependence.

(4) Many participants would reject or abandon technology devices due to fears, some of which included: being taken advantage of, being pitied, and losing independence. The avoidance of devices that projected 'obvious' markers of disability, represented an intentional strategy to avoid pity, embarrassment, and/or social discrimination. Additionally, participants expressed fear that their reliance on helpful technologies would lead to further experiences of dependence, which was in direct contradiction to the self-image they desired to portray.

(5) Older adults frequently did not want to use assistive technology because it acted as a constant reminder of the dependency of old age or the negative reality of an aging and/or disabled identity. Older adults do not want to be perceived as a burden but they also do not want to be constantly reminded of the dependency of old age, which causes a dilemma where the adoption and use of technology is concerned. As such, many older adults resisted the use of assistive technology because they did not perceive nor did they want to perceive themselves as 'old enough' or 'disabled enough' to justify using it.

The findings of this review highlight several promising avenues for future research investigation. For example, there is a substantial need for more investigation into the design, development, and commercialization of various types of technologies in order to further understand and address this complex relationship. This includes learning more about the needs, values, and preferences of older adults; information that can then be applied to current and future technology creation. This should contribute to optimal usage of technologies that will improve health, mobility and safety, facilitate engagement in meaningful activities, enable social participation within the community, and promote quality of life and optimal well-being for older adults.