

Application Fields and Innovative Technologies

Exploring Older Adults' Privacy Preferences through Co-Design of Private and Public Dashboards in AAL Environments H. Jo, M. Brehmer, J. Wallace, P. P. Morita. *Gerontechnology* 25(s)

Purpose Smart home or Ambient Assisted Living (AAL) technologies use unobtrusive sensors to support aging in place by monitoring safety and health in the home (1). However, adoption remains limited in part because older adults are concerned about who can see their information (e.g., health data, activities of daily living) and in what context (2). Although dashboards are common in AAL environments, many do not distinguish between private and public display modes, resulting in the same data being shown to all audiences. This study examines how older adults prefer to share different types of health data across private and public displays and how dual-dashboard designs can improve perceived control, comfort, and willingness to adopt AAL technologies. **Method** This exploratory qualitative study involves sixteen older adults aged 65 years and older. Four focus group sessions, each consisting of four participants, introduce four dashboard contexts: (A) a personal device (private), (B) a family-access device (private), (C) a clinician console (public), and (D) a publicly visible screen (public). Guided discussion and a card-sorting activity using mock-up dashboards are used to elicit decisions about which types of information participants would share, hide, or classify as context-dependent (i.e., requiring specific conditions for sharing). Five common health data types are examined: identifiable video, anonymous video, audio, vital signs, and activity data (3). Focus group discussions are designed to be audio-recorded and analyzed using an inductive thematic analysis approach to identify patterns in sharing preferences across data types, display contexts, and intended viewers. **Results and Discussion** Preliminary insights indicate clear distinctions in older adults' willingness to share information across dashboard contexts, shaped by perceived data sensitivity, identifiability, and richness. Identifiable video and audio data are consistently viewed as highly sensitive, whereas activity and vital sign data are more acceptable in clinician or family-accessible contexts. Comfort with data sharing also varies by intended viewer, with greater openness toward clinicians and close family members than toward visitors or publicly visible displays. Several data types emerge as context-dependent, with sharing contingent on factors such as health status, emergencies, or the availability of granular privacy controls. These insights illustrate how older adults actively differentiate between private and public information in AAL settings and highlight the role of dashboard design in shaping trust and perceived control. Incorporating dual-dashboard approaches that align with user expectations may support more privacy-conscious and acceptable AAL systems, thereby enabling more older adults to age in place.

References

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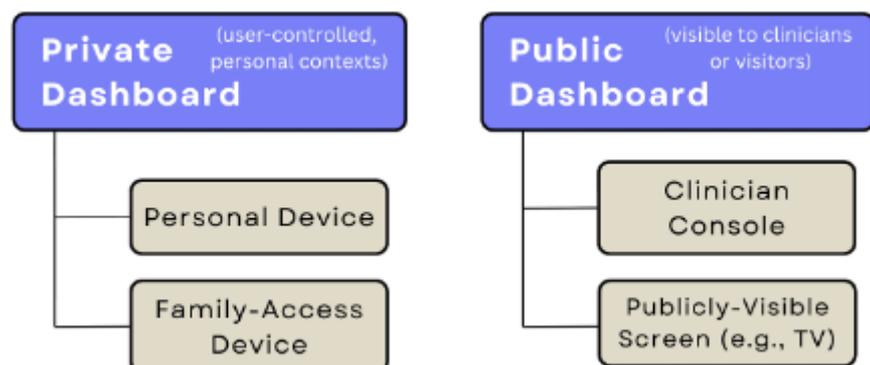


Figure 1: Four dashboard contexts used in the focus groups, categorized as private or public based on who can view the displayed information.