

Developing an Instructional Suite for the Amazon Echo to Support Novice Older Adults' Use

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Background

By 2034, older adults (65+) projected to outnumber children (<18) in the United States (U.S. Census Bureau, 2019)

With increasing age comes **demand for sufficient support for maintaining older adults' independence** when aging in place

Technologies like digital home assistants (DHAs; e.g., Amazon Echo) can help support older adults to improve their quality of life

May be especially beneficial for those living with mobility disabilities to help with not only activities of daily living but also controlling their environment (e.g., when connected to other tech like smart plugs, smart lights)

DHAs generally do not come with appropriate instructional resources designed with older adults in mind, making them difficult to learn for this population

Aim

To develop and maintain **up-to-date instructional protocols for older adults to help them set up and learn to use** the Amazon Echo Show and connected environmental technologies (Amazon smart plug, Philips Hue smart light bulb) to benefit from these devices

Design Method

Initial Task Analysis

Recording step-by-step details to accomplish task goals (e.g., setting up, using technology)
Ensuring all potential decisions and actions are covered accurately
'Chunking' steps to best accommodate older adults

Design Guides with Human Factors Principles

Ensuring content is appropriately designed for older adults. Examples include:

- Large font
- Supportive graphics
- Appropriate vocabulary and directions
- Logical order and easy to follow

Iterative User Testing

Conducting user testing with a variety of relevant individuals:

- Subject Matter Experts
- Older Adults without mobility disability
- Older Adults with mobility disability
- Target population for ongoing field trial

Continued Iterative Design

As guides are being used in a field trial to assess the utility and usability of digital home assistants (Amazon Echo) and connected technologies for older adults with mobility disability, **goals include:**

- Ensuring the guides are constantly updated to account for changes in the setup and use process for the technologies
- Guides inclusion as part of a "Digital Assistance in a Box" technology suite to best support participants in the field trial

Dissemination of the Updated Guides

Disseminating the revised guides to the general public as well as to our research partners:

- TechSage RERC
- University of Chicago

Interested in our guides? Access them here!



Philips Hue Smart Light Bulb

Amazon Smart Plug