How do Older Adults Set Up Voice Assistants? Lessons Learned from a Deployment Experience for Older Adults to Set Up Standalone Voice Assistants

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Our final work has been accepted ⁶Electrical and Computer Engineering, Carnegie Mellon University by ASSETS '23 @NYC, stay tuned!

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Introduction

Standalone Voice Assistants (VAs) are promising yet setting up & onboarding are challenging!





Amazon Echo Dot (Voice-Only)

Amazon Echo Show (Voice-First Screen-Based)

Key Research Question:

How existing commercially-available, voiceonly, and voice-first screen-based standalone VAs currently support (or do not support) independent device setup and the onboarding process for older adults?

Participants

10 participants (age, M = 79.20, SD = 7.70) recruited from UCSD Health & The Vi @La Jolla;

ID	Age	Sex	Past Experience "I am familiar with VA"	TechPH (Enthusiasm)	TechPH (Anxiety)	MDPQ	CPQ
P1	90 - 95	F	Somewhat Agree (4)	3.3	3.3	3.3	3.9
P2	80 - 85	F	Strongly Agree (5)	4.7	2.3	4.8	4.8
P3	70 - 75	F	Somewhat Disagree (2)	3.7	4.7	2.4	4.3
P4	70 - 75	F	Strongly Agree (5)	3.3	4.7	4.3	4.4
P5	90 - 95	M	Somewhat Agree (4)	4.3	2.0	4.8	4.9
P6	75 - 80	M	Somewhat Agree (4)	4.7	3.3	4.4	4.5
P7	75 - 80	F	Somewhat Agree (4)	4.7	2.0	3.4	4.8
P8	75 - 80	F	Somewhat Agree (4)	2.0	4.3	5.0	4.0
P9	70 - 75	M	Strongly Agree (5)	5.0	2.0	4.1	4.9
P10	75 - 80	M	Somewhat Disagree (2)	4.3	3.0	1.0	4.3

Methods

Observation + Semi-Structured Interview

Guiding Questions:

Q1: Major challenges?

Q2: Values of the touchscreen for voice-first VA?

Findings

Device Form Factor Impacts Placing VAs in the Home

- Form-factor of the touchscreen for voice-first VA;
- Power cables & plugs;

Challenges with Instruction Manuals

- Seeking key information & small print size;
- Interactivity;

Affordances of the Built-In Touchscreen

- Issues related to typing;
- Visual feedbacks;
- In situ visual guidance;

"I think that people who are creating these [manuals] are making their own assumptions. They think it'll be easy for them to do this. But not necessarily... somebody needs to have a test drive with a user like what we're doing here." (P10)

Setting Up Amazon Echo Dot (Standalone Voice-Only VA)

Setting Up Amazon Echo Show (Standalone Voice-First Screen-Based VA)



















