

Improving web accessibility for people with aphasia: Experiences and priorities from people with lived experience and health professionals



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Background and aims

Access to information on the web is now considered a human right. However, people living with aphasia face inequities, that extend beyond having the necessary equipment, when accessing information and services online. Some common challenges include navigating the web, searching for information, reading and understanding written information, booking and attending medical appointments, and the management of passwords and other security features. New solutions, guidelines, and training resources are needed to support digital access for people living with aphasia.

This study aimed to:

1. Understand experiences of people with post-stroke aphasia for using the web to access information, healthcare, and support services.
2. Understand experiences of family members and health professionals for providing support for accessing the web.
3. Identify key priorities for improving web access for people with aphasia.
4. Establish design principles to guide the design and development of a web browser extension to support web accessibility.

Methods



Participants: Eight focus groups were held with people with post-stroke aphasia (n = 9), family members (n = 7), and health professionals who work clinically with people with aphasia (n = 10). All participants lived in Australia, were proficient in English to participate in group discussions, and were able to provide informed consent.



Procedure: All focus groups were held online. Separate focus groups were held for each participant group, with no more than 5 participants in each group. A focus group guide was developed to explore experiences, barriers, and facilitators of using the web to access information, healthcare, and support services online. The nominal group technique was used to identify priorities for improving web accessibility for people with aphasia. Miro board was used for recording ideas. Reflexive thematic analysis was used to analyse the experience data. Inductive qualitative content analysis was used to analyse the prioritisation data.



Facilitating inclusion: Questions were sent out prior to the focus group. During the focus group, questions were presented verbally and visually. Participants with aphasia could have a support person attend the focus group with them. All researchers completed training in using supported communication techniques.

Experiences of using the web



Written information is overwhelming

- Too much information
- Complex language

“Everything that comes up on the screen on the internet is all related with words and the difficulties are because, ah, firstly recognising words at all, comprehending collections of words into a meaning, and then dealing with them.” (Peter, Family member)



Searching is hard when you can't find the right words

- **Assistive technology** was not always successful

“A lot of times, I can't more than two or three [letters] and I don't know it.” (George, Person with aphasia)



Challenges to accessing online services

- **Form-filling** and **password management**
- Finding **relevant information** and support services

“I find it hard to, uh, you know, having to fill in a form every time I go into, uh, initiating, uh, Telehealth... it's, uh, annoying.” (Lucas, Person with aphasia)

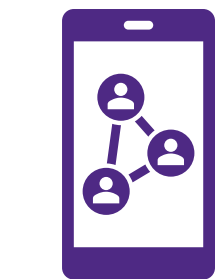
“It's a big pit of things and you just don't know where to start.” (Anne, Family member)



Confidence building through support and opportunities to practise

- **Repetition** and familiarity improved usability

“You're usually there with them, and you can show them, “Okay, this is the one that it is,” direct them, and then they sort of learn that pattern in that process.” (Lucy, Health professional)



Finding new ways to connect

- **Social media**, **YouTube**, and university **research** as alternate sources of information

“His life at the moment is, ah, YouTube on TV... he's fascinated when it, um, profiles him and gives him a whole lot of other subjects.” (Anne, Family member)



User-centred design informed by aphasia awareness

- **Customisation** to suit individuals

“Everyone with aphasia is different and having flexibility to do things in various different ways, I think is an important factor in helping people access.” (Josie, Health professional)

Key priorities for improving web accessibility

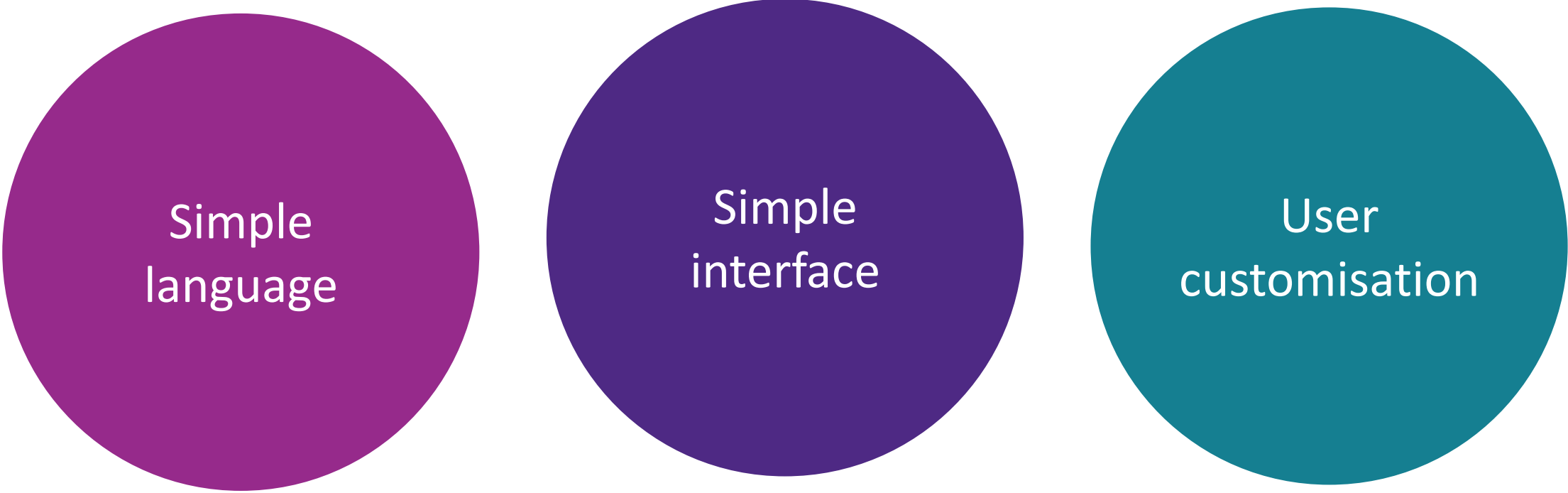


The **top 5 priorities** for improving web accessibility for people with aphasia included:

1. Tailored technology
2. Communication-accessible interfaces
3. Simplify language
4. Support for finding help that is available
5. Technology to support word finding

Design principles

The key priorities were mapped onto three **design principles**:



Discussion and next steps

Strengths: Inclusion of key end-users to enable diverse perspectives to be heard.

Limitations: When generating ideas for improving web accessibility, participants' ideas were limited by their existing knowledge of technology.

Next steps: Conduct a series of co-design workshops to iteratively design, develop, and evaluate the browser extension and training tools.

Author Affiliations:



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Australian Aphasia Association, Australian Disability Network, Centre for Accessibility Australia, National Disability Insurance Agency, Services Australia, Stroke Foundation

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