

Bridging the Digital Divide

Celebration Event Summary

Celebration Event

The Bridging the Digital Divide celebration event was held on Monday 24th November 2025.

38 people attended the celebration event (14 in-person and 24 online).

Thank you to everyone who was able to attend.

For those who could not attend, here is a **summary** of the project.





Acknowledgements

Funding

This project was funded by a Medical Research Future Fund Consumer-Led Research Grant and a UQ Foundation Research Excellence Award.

Research partners

Six (6) organisations have partnered on the project:

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

Research Team

This project involved **24 researchers** from the University of Queensland, La Trobe University, and the University of Sydney.

Our team also included:

- 8 lived experience advisors
- 11 co-designers
- 6+ representatives from partner organisations
- 20+ participants throughout the project

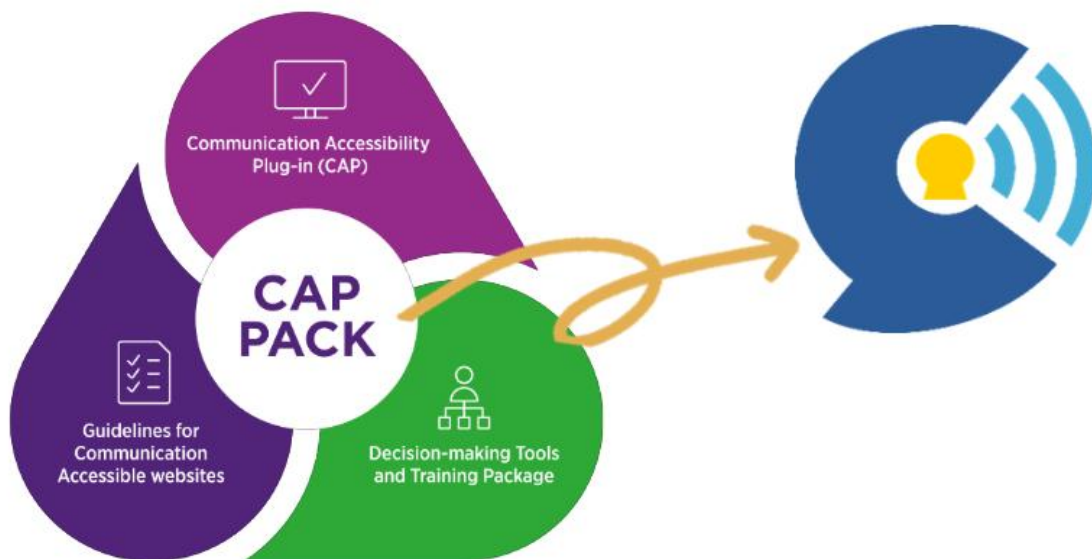
Project Overview

- The **web** is used to access many **services**.
For example, healthcare, banking, and social services.
- **Access to information and services** on the Internet is a **human right**.
- Using the Internet requires **writing, reading, and understanding**.
- People living with a **communication disability** can find it **harder to use** the web.

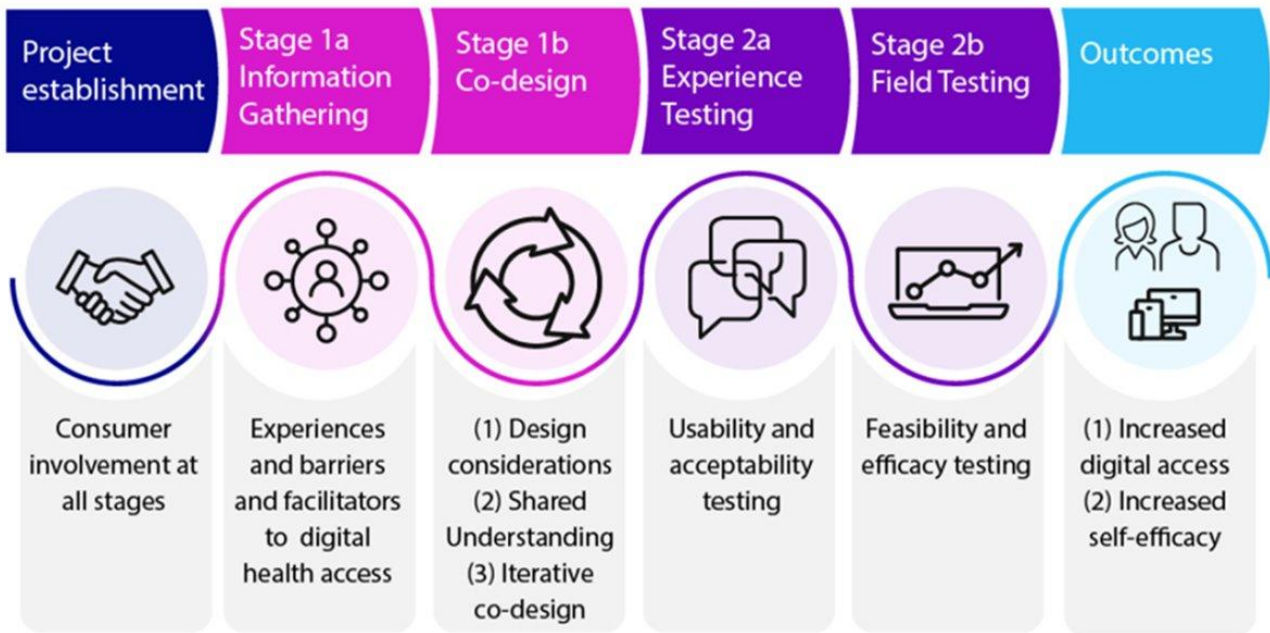


We aimed to **co-design**:

1. A **web-browser extension** to make web pages more **aphasia-friendly**.
2. A **training package** to help users **customise** the browser extension.
3. **Guidelines** for creating communication-accessible websites.



The project used **Experience-Based Co-Design** and **Human-Centred Design** methods. There were six stages in the project:



Experience Gathering and priorities for improvement

The **first stage** of the project aimed:

- To understand people with aphasia's **experiences** with **accessing** healthcare, information, and support **online**.
- To understand family member's and health professional's **experiences** with **providing support**.
- To **identify priorities** for improving web accessibility for people with aphasia.



We completed **eight (8) focus groups** with:

- Nine (9) people living with aphasia
- Eight (8) family members
- Ten (10) health professionals



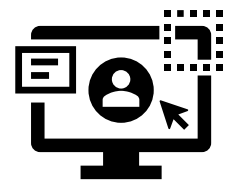
During the focus groups, participants were asked to:

1. **Share experiences** with web use or providing support for web use.
2. **Share ideas** on what would help with web use.
3. **Choose the most important ideas** to help with web use.

We identified **six (6) key experiences**:

1. **User-centred design for people with aphasia**

- **Awareness** and understanding of aphasia can help with accessible web design
- Important to be able to **customise software** to suit users



2. **Confidence building through support and practice**

- Confidence with technology impacts motivation to get back online
- Having **opportunities to practice** helps build independence



3. Challenges to online service access

- Filling out forms
- Password management
- Family members need help for finding information and support.



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

- Spelling can be hard.
- Assistive technology is not always successful.



5. Written information online is overwhelming

- Text-to-speech can help but only if the rate can be changed to suit user preferences.



6. Finding new ways to connect

- Finding information and connection with peers on social media, YouTube, and research opportunities.





The **top five (5) priorities** for improving web use were:

1. New technologies and tools

Example: Improved speech recognition

2. Communication-accessible website design

Example: Reduce distractions

3. More learning and support resources

Example: Guides for finding information and support

4. Inclusive and tailored technology

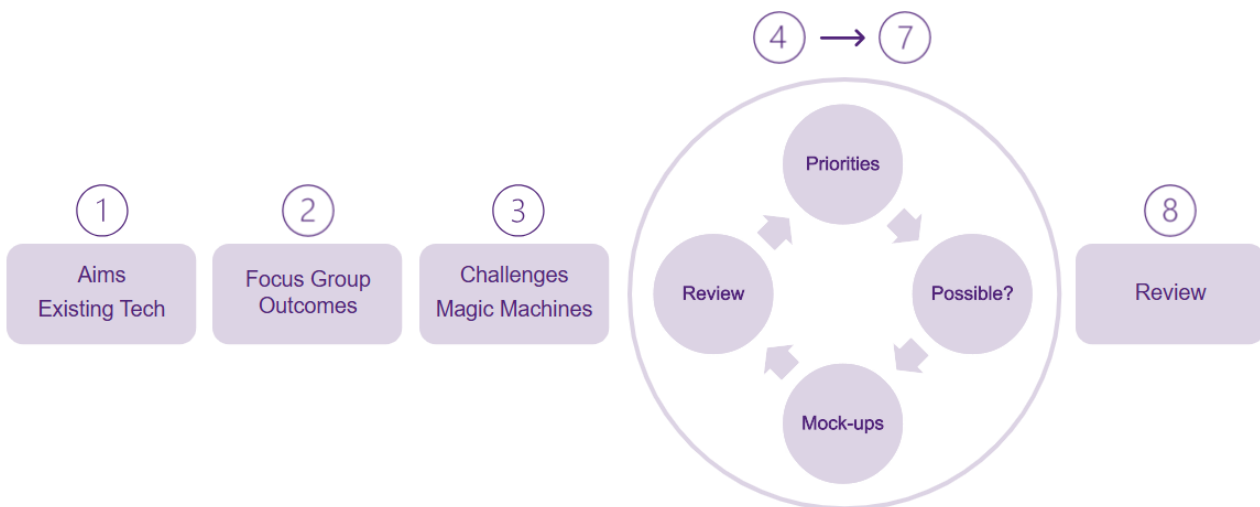
Example: Resources for culturally and linguistically diverse users

5. Help from a real person

Example: Easily connect to a real person for help

Co-designing the browser extension

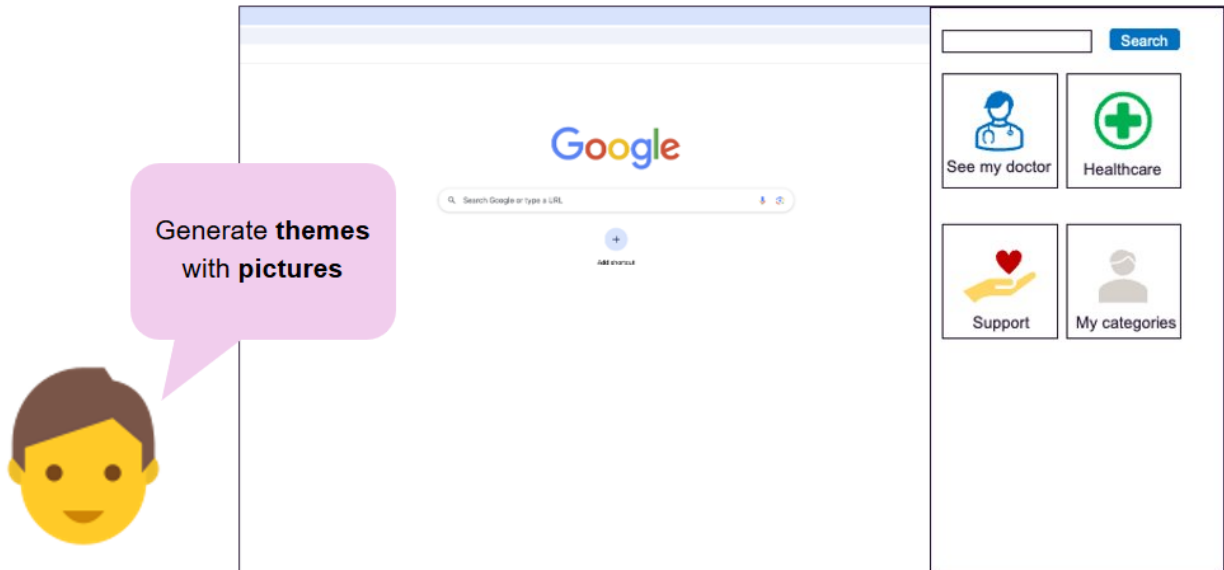
- Our co-design team was made up of **19 people**:
 - 5 people with aphasia
 - 3 family members
 - 3 health professionals
 - 2 research partners
 - 6 research team members
- We ran **8 co-design workshops** over 16 weeks.



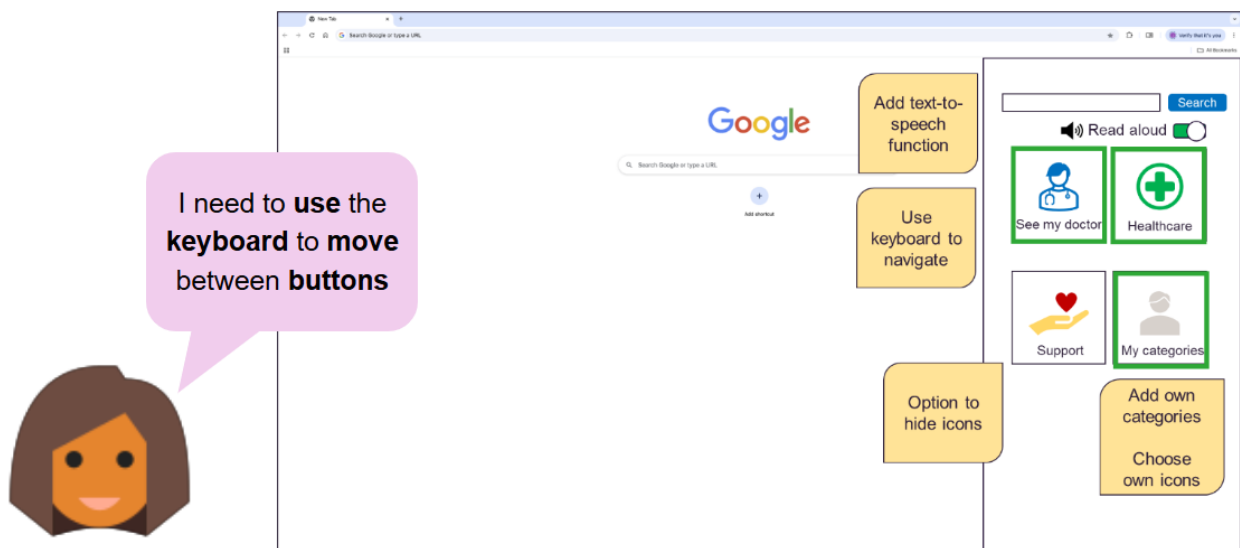
- In workshops 1-3, we discussed **co-design aims**, **experiences** of using web shared in focus groups, key **challenges** of using the web, and brainstormed potential **solutions**.
- In workshops 4-7, we discussed **features to be prioritised** in the extension, **possibilities** for development, and created **design mock-ups** (a way to **visualise** what the final product will look like).

Example of a **design mock-up**:

- One co-designer suggested to have themes with pictures to help with searching.



- Other **co-designers gave feedback** on the mock-up (shown in yellow boxes).



We identified **four (4) key priorities** from the co-design workshops:

- Reduce distractions
- Help with reading and understanding information
- Help with word finding when searching
- Allow the user to customise settings

Developing the extension:

- After co-design, we developed the browser extension.
- The development process took **18 weeks**.

CommuniKey

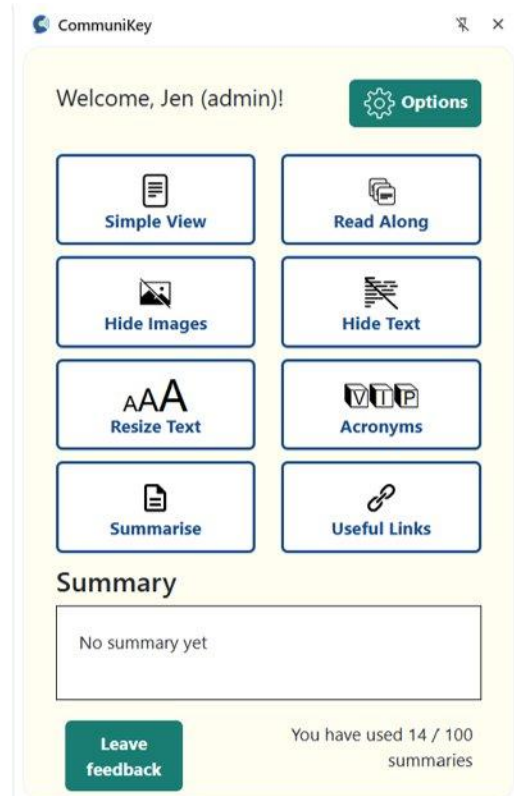
- *CommuniKey* stands for communication key.
- Browser extension to help people with communication disability unlock the web.
- Co-designing, developing, and testing *CommuniKey* included **over 1200 hours of consumer involvement**.



“Unlock the web”

- *CommuniKey* has eight (8) features to help with **reading** and **understanding information** online.

- **Simple View:** Reduces distractions on a web page.
- **Read Along:** Breaks information up into smaller segments and reads the text aloud.
- **Hide Images:** Removes images.
- **Hide Text:** Removes text.
- **Resize Text:** Makes text bigger.
- **Acronyms:** Defines acronyms in its full form.
- **Summarise:** Uses artificial intelligence to create customisable summaries of the web page.
- **Useful Links:** Shows shortcuts to the About Us, Contact Us, and Help pages.



- Users can also **set their preferences** by going to **Options**.

Usability Testing

After developing *CommuniKey*, we **tested** it to make sure it was **easy to use**. This is called **usability testing**.

We tested the browser extension with:

- Eight (8) people with aphasia
- Five (5) family members
- Six (6) health professionals

During the testing sessions:

- Participants completed tasks together **step-by-step**.
- Participants were **not given instructions**. This allows us to see how **intuitive** it is to use the browser extension.
- Participants **rated how easy** it was to complete each step.

We received lots of **positive feedback**:

- Summarise is helpful.
- Customisable text-to-speech options are good.
- Simple View is good for reducing distractions.
- Word highlighting in Read Along is good.
- Acronyms will be useful for understanding.



Some usability issues identified:

- The meaning of some **icons** was **not clear**.
- The wording of some **messages** was **not clear**.
- Users were unsure how to **close options page**.

These usability issues have been **fixed** in an **updated version** of the browser extension.

Field testing

- A **field test** is a testing a new software in the **real world**.
- 17 participants recruited for the field test
- Participants are asked to:
 - **Test *CommuniKey*** on their computer for **2 weeks**
 - **Complete surveys** about self-efficacy and digital health literacy before and after using *CommuniKey*
 - Attend a **focus group** or **interview** to share their experiences



- Preliminary results
 - 8 participants completed field test
 - 1303 interactions with the browser extension (i.e. number of times a user clicked on the browser extension)
 - 121 summaries generated
 - **Most used** feature: Summarise

- Some early feedback:
 - *CommuniKey* is **easy to use**
 - Some participants only used 1 or 2 features
 - Some participants wanted it on their **tablet or smartphone** – more convenient.

Next steps for *CommuniKey*

- Accessibility audit
 - Centre for Accessibility Australia will provide support to **check** that *CommuniKey* meets **international accessibility standards**



- **When will *CommuniKey* be available?**

- Soon!
- We are talking to UniQuest about **intellectual property** and how *CommuniKey* can be **transferred** to the “**real world**”.
- We need to think about a **funding model** to support the use of **AI tools** (e.g. for the Summarise feature).



- Future research

- Application submitted to the auDA (au Domain Administration) **Community Grant** program.
- The grant aims to enhance the utility of the Internet for the benefit of the Australian community.
- Supports digital innovation and **digital inclusion** – including for people with disability.





Contact us

If you have any questions, comments, or would like to see more, please contact the **Bridging the Digital Divide** team.

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**Thank you for all your support and contributions to this
research project!**