

Usability testing and people with disabilities

Acknowledgement of country

I'd like to acknowledge the **Traditional Owners of the lands** on which I am presenting today.

In my case, this is the [Cammeraygal people](#) of the Guringai tribe of the [Eora nation](#).

I'd like to pay my respects to **Elders past and present**, and extend that respect to all First Nations people present today.

Some introductions

My name is Russ Weakley:

- 1995: Web Design and HTML.
- 2002: CSS.
- 2003: Accessibility.
- 2012: Component libraries and Design systems.

Some family:

- A father who is profoundly deaf.
- A brother who is legally blind.
- A son on the ADHD/Autism spectrum.

- I have Dyslexia/Dyscalculia.

Some initial thoughts

The importance of observing people in action

One of the most important things you can do if designing or building a product is to **spend time observing people**.

This could be anything from focus group sessions to interviews or **user testing sessions**.

I began this process in 1984 at the Australian Museum, doing basic user testing on **aspects of our exhibitions**.

In the digital world, this means observing people **interact with web content, web apps, native apps**.

And, you should engage with a diverse range of people, **including those with disabilities**.

But what does this engagement **actually mean**?

Discussions and interviews

- Talk to diverse groups of people.

- Find out how they interact with the digital world.
- Find out their needs and frustrations.

User testing

- Observe them in their own environments, using their own setups.
- Observe them doing "real world" tasks.

You will quickly realise

1. Everyone is unique.
2. Everyone approaches tasks in their own way.
3. It is dangerous to assume a group of people will all act in the same way.

I was lucky enough to **work with a mentor** who totally believed in this approach.

So, from early 2003 onwards, we met with many people with **a wide range of disabilities**.

We went to their houses or offices, we **asked them questions about their experience**, and we observed them in action.

A bunch of stories

This is going to be **a bit of a ramble**: some different stories from over the years.

Please stop me at any time if you have questions, comments or insights!

Side note: In most of these stories, I'm using **fake names** so as to protect the innocent!

1. Barry and colour

Take aways

- [Focus management](#) is critical for all users.
- Do not [use colour alone](#) to signify anything critical - links, error states etc

Any **questions or comments**?

2. Mary and the flyout menu

Let's look at [ZoomText](#) (Screen magnifier software) in action.

Take aways

- As before, focus management is critical for all users.
- Be aware that proximity is important and users may only see a portion of the screen.

Any **questions or comments**?

3. Mary and the invisible form fields

Take aways

- Colour contrast also also [critical for UI components](#), like inputs!

Any **questions or comments?**

4. Judith and tabbing

Let's look at a [Head wand](#) in action.

Take aways:

- Use [skip links](#) to allow users to bypass blocks of content that are repeated on multiple Web pages.

Any **questions or comments?**

5. Judith and the missing focus states

Take aways:

- Make focus states [clearly visible](#).

Any **questions or comments?**

6. Screen reader users and data tables

Take aways:

- [People used different methods to navigate pages](#).
- People may not be able to afford the latest technologies.
- People have a wide range of technical competency.

Any **questions or comments?**

7. Steve and Dragon

Let's look at [Dragon Naturally Speaking](#) in action.

Take aways:

- Steve can do everything that any other user could do, he just may need extra time.

Any **questions or comments?**

8. Bruce and his refreshable braille device

Let's look at a [Refreshable braille display](#) in action.

Take aways:

- While many people with disabilities may need additional time to complete tasks, this is not true for everyone.

Any **questions or comments?**

9. Damien and face tracking

Let's look at a [Controlling your mac with head movement and facial gestures](#).

Take aways:

- Be aware that some users cannot easily type.
- Autocomplete, dropdowns and date pickers are good for some users.

Any **questions or comments?**

10. Jeff and head trauma

Take aways:

- Be aware that some people may have trouble understanding or remembering complex tasks.
- Breaking complex tasks down into simpler tasks, and use clear instructions

Any **questions or comments?**

Final thoughts

If you are designing or building any digital product, you should test it as **early and often as possible**.

Preferrably with **real users**, but anyone is better than no one.

Make sure to include **a wide range of diverse audiences** - gender, sexuality, identity, ethnicity, socio-economic status etc.

Their lived experience could **provide you with valuable insights**.

Any **questions or comments?**