

Introduction to digital accessibility

Mable

Acknowledgement of Country

I'd like to acknowledge the Traditional Owners of the lands on which we meet today, the Cammeraygal people of the Eora.

We pay our respects to Elders past and present, and extend that respect to all First Nations people present today.

Add some quick intros in chat:

- What's your current role?
- How long have you worked at your current organisation?

My name is Russ Weakley:

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

Feel free interrupt and **ask questions** any time!

Resources provided?

A version of the slides and any other associated resources will be provided at the completion of the session.

What will we cover?

- [Accessibility testing tools](#)
- [Measuring the importance of issues](#)
- [Prioritising how issues will be addressed](#)
- [Exercise: Accessibility user profiles](#)

Accessibility testing tools

There are a wide range of accessibility testing tools that can be used to **identify and address accessibility issues**.

All accessibility testing tools have **limitations**.

They can **only detect about 25% to 30%** or so of accessibility issues. The remainder of issues require manual checking, by a person.

If an accessibility testing tool passes a website, this **doesn't necessarily mean the site is accessible**.

Most accessibility testing tools **cannot detect the following**:

Broad concepts

1. Poor usability
2. Lack of or poor keyboard accessibility
3. Incorrect reading order
4. Improper use of HTML elements

Content-related concepts

1. Poor use of page titles, headings, link text or alt-text

2. Poor form labels, instructions or error messages
3. Lack of or poor quality of captions or transcripts

Accessibility testing tools **should not replace**:

- Expert reviews
- Accessibility audits
- Inclusive user research and testing

However these tools are still very useful when reviewing the accessibility of digital products - as long as we are **aware of their weaknesses**.

I'm going to quickly run through **a long list of possible tools**.

Automated accessibility platforms

- [OzArt](#)
- [Tenon](#)
- [Monsido](#)
- [UsableNet AQA](#)

Browser extensions

- [Axe](#) (Chrome extension)
- [Accessibility Insights for web](#) (Chrome, Edge extension)
- [WAVE](#) (Chrome extension)
- [Web Developer extension](#) (Chrome, Firefox, Opera extension)

Bookmarklets

- [A11y audit bookmarklets](#)
- [JavaScript Bookmarklets for Accessibility Testing](#)

Colour and contrast tools

- [Colour Contrast Analyser by TPGI](#)
- [Contrast Ratio by Lea Verou](#)
- [WebAIM Color Contrast Checker](#)
- [Tanaguru contrast finder](#)
- [Stark](#)

Automated mobile tools

- [iOS Accessibility Inspector](#)
- [Android Accessibility Scanner](#)
- [Axe for Android](#)
- [Android Studio - Lint](#)

Content testing tools

- [Readability Test](#)

Screen readers

- JAWS (Windows)
- NVDA (Windows)
- VoiceOver (MacOS and iOS)
- TalkBack (Android)

Personal favourites

Extensions

- [Axe](#) (Chrome)
- [Accessibility Insights for Web](#) (Chrome and Edge)
- [ColourBlindly](#) (Chrome)
- [Colour Contrast Checker](#) (Chrome)
- [SkipTo Landmarks & Headings](#) (Chrome)

Bookmarklets

- [Reveal Focus Order](#)
- [List images](#)
- [List links](#)
- [WTFocus](#)
- [Show focus styles](#)

Discussion

- Have you used any of these tools in the past?
- What did you like?
- What did you dislike?

Measuring the importance of issues

There are three common ways to determine **the importance of accessibility issues**.

1. Issue impact

How much has the issue impacted the user's ability to accomplish the task.

What is a “task ”?

- A process (Filling in a form)
- A micro-process (Choosing a date)

- **Critical:** User cannot proceed with the task
- **High:** User can proceed but the experience may be impacted
 - User must use an alternative method to complete task

- Alternative method may be more frustrating or required additional time

2. Task criticality

How critical is it to the business if the task can't be completed.

3. Issue frequency

How many times the issue has occurred across the tested pages/processes.

Which would you address first?

Issue 1:

- Critical issue - the user cannot proceed
- Very low impact for the business - on a page with little traffic

Issue 2:

- High impact issue - the user can proceed but experience impacted
- Affects core business revenue - users cannot get a quote

Which of these would be **the most important to address?**

Let's rate some issues

Example 1: How would you rate this issue?

A keyboard-only user cannot choose an item from a primary navigation dropdown menu as the entire menu is not keyboard accessible.

1. Issue impact:

- Can the user proceed with the task?
- Is the experience is impacted?

2. Task criticality:

- How critical is the task to the business?

3. Issue frequency:

- How many times across the site?

Example 2: How would you rate this issue?

A user fails to fill in a required form field as this was not flagged to the user, so they are presented with an error message.

1. Issue impact:

- Can the user proceed with the task?
- Is the experience is impacted?

2. Task criticality:

- How critical is the task to the business?

3. Issue frequency:

- How many times across the site?

Discussion

- How do you currently measure the importance of issues?

Prioritising how issues will be addressed

There are many ways to **prioritise how your team addresses issues**, depending on their knowledge, and the limitations of their systems

Method 1:

By criticality of issues - e.g. addressing all critical issues first.

Method 2:

Whether the issue exists within a design system - and can therefore be resolved across multiple instances.

Method 3:

By focussing on issues that are easy to resolve.

Method 4:

By the ability of your team. Do they have the knowledge to resolve the issue?

Method 5:

By limitations of systems. What can be fixed within the system in the short, medium and long term?

A mix of methods

Of course, you could use a mixture of any of these methods to suit the needs of your team.

Discussion

- How do you currently prioritise issues?

Exercise: Accessibility user profiles

How can we plan, design and build for **all the different types of disabilities**?

One solution is to create a set of **user profiles** that follow the broad categories we just reviewed.

1. A person with no vision
2. A person with low vision
3. A person with reduced colour vision
4. A person with limited movement
5. A person with different learning or cognition
6. A person with reduced or no hearing

Accessibility user profiles **should not replace**:

- Expert reviews
- Accessibility audits
- Inclusive user research and testing

However, they help teams to focus on **different types of people and their individual needs**.

For example, how would each of these user profiles **engage and interact with the following scenarios?**

- A user-journey (e.g. Getting an insurance quote)
- A process (e.g. Making a payment)
- A page (e.g. Filling in a form)
- A component (e.g. Choosing a date from a date picker)

Each of the 6 profiles **may have specific needs** when adding a date to a form field.

Will the profile understand **the purpose of the field** from the label, instructions and UI?

Do they need to **see the field in high contrast**, or magnified?

Can they interact with the date picker **using keyboard-only**?

Will each aspect be **correctly announced to screen readers**?

These profiles have the greatest impact when used during the **early stages** of design, development and testing processes.

Let's do an activity to **build some accessibility user profiles** based on [Gov.UK](#).

Questions/discussion?