An introduction to Digital Accessibility

CLIENT NAME

Acknowledgement of country

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

In my case, this is the **Cammeraygal people** of the Guringai tribe of the Eora nation.
(Feel free to add the Traditional owners of your land into chat)

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

Intros

Add some quick intros in chat:

- What's your first name?
- What's your current role?
- How long have you been with MTIA?

My name is Russ Weakley:

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

Some housekeeping

This workshop is for you

- We can go as slowly or quickly as needed.
- Ask questions at any time!

How to ask a question

- Option 1: Use the "raise hand" icon.
- Option 2: Ask in chat - I may not see straight away.
- Option 3: Unmute and interrupt at any time.

Cameras on or off?

- Having cameras on at times helps with feedback.
- However, everyone has different comfort levels.
- I will prompt you when asking for feedback, so these are good times for the camera to be on.

A safe space

- Respect people's gender, identity, diversity.
- No judgement of people's knowledge or questions.
- Confidentially around shared stories.

Break?

We'll take a 10 min break around the hour mark.

Resources provided?

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

Exercises

We'll be using FigJam for some execises. You don't need an account!

What will we cover today?

1. [Why should you care about accessibility?](#)
2. [What is WCAG?](#)
3. [Types of disability](#)
4. [Let's meet some people](#)
5. [Accessibility profiles](#)
6. [How accessibility-mature is your organisation?](#)

1. Why should you care about accessibility?

Key reasons to care:

- Commercial incentives
- Reputation
- Legal responsibilities

Commercial incentives

Question:

Do you know the percentage of people in Australia who have some form of disability?

In Australia, the term **"Disability"** means:
"Any limitation, restriction or impairment which restricts everyday activities and has lasted, or is likely to last, for at least six months."

In 2018 the [Australian Bureau of Statistics](#) reported that there were **4.4 million Australians with a disability** or 17.7% of the population.

And the prevalence of disability **increased with age**;

- 11.6% of people aged 0-64 years had a disability
- 49.6% of people aged 65 years and over had a disability

It is well-known that these estimates may be low, as many people **do not identify themselves as having some form of disability**.

Globally, **people with disabilities** control around [$8 trillion in spending](#).

Can you afford to lose potential or existing customers **due to inaccessible products and services**?

Reputation

In 2015, the legal case [Gisele Mesnage vs Coles](#) was **settled out of court**.

While a financial risk is associated with legal actions like this, the possible **damage to an organisation's reputation** is a far greater risk.

If you receive a complaint via social media or any other channel, **the manner and speed of your response could have a massive impact** on the end result.

Question:

Should you get an accessibility complaint about any of your products and services, do you have and guidelines or policies in place?

Legal responsibilities

Question:

Do you know the rules around public-facing digital products within Australia?

All public-facing digital products in Australia are **required to comply with** the [Disability Discrimination Act 1992](#).

"The provision of online services through the web is a service covered by the DDA. Equal access for people with a disability is required by the DDA where it can reasonably be provided. This requirement applies to any organisation developing a website in Australia."

[Australian Human Rights Commission - Disability Discrimination Act Advisory Notes v4.1](#)

Any **questions or comments**?

2. What is WCAG?

Question:

What does the term "WCAG" stand for?

The World Wide Web Consortium (W3C) is the main organisation that **develops international standards for the World Wide Web**.

One of the standards produced by the W3C is the **Web Content Accessibility Guidelines** - often referred to as "WCAG".

- **WCAG 2.0** – released in Dec 2008
- **WCAG 2.1** – released June 2018
- **WCAG 2.2** – due later in 2022
- **WCAG 3.0** – expected 2023/24

WCAG is **structured** in the following way:

- 4 Principles
  - 13 Guidelines
    - 78 Success Criteria
      - Sufficient Techniques
      - Advisory Techniques
      - Failures

Principles

At the top of WCAG are **four principles** that provide the foundation for Web accessibility.

The four principles

- Perceivable
- Operable
- Understandable
- Robust

Guidelines

Under the principles are **13 guidelines** which provide the overarching goals to make content more accessible to users with different disabilities.

Success criteria

For each guideline, **testable success criteria** are provided to allow WCAG 2.0 to be used for conformance testing.

WCAG 2.1 includes **78 "Success Criteria"**.

These success criteria are **a checklist** that helps determine if the site/app can be considered "accessible".

Each Success Criteria has a compliance level of either: **"A", "AA" or "AAA"**.

WCAG 2.1

- **30 level "A"** (minumum level of conformance).
- **20 level "AA"**.
- **28 level "AAA"** (maximum level of conformance).

To be "AA" compliant, sites **must meet all "A" and "AA"** Success Criteria.

This means that websites and web apps **must comply with all 50 of these Success Criteria**.

WCAG 2.2

- 9 new success criteria
  - 2 Level A, 5 Level AA, 2 Level AAA
- 2 updated success criteria
  - 1 renamed, 1 new level

Any **questions or comments**?

3. Types of disabilities

Disabilites are often grouped into **five broad categories**:

- Visual.
- Auditory.
- Physical.
- Cognitive, learning, and neurological.
- Speech.

1. Visual

A. Low Vision:

- [Macular degeneration](#).
- [Glaucoma](#).
- [Diabetic retinopathy](#).
- [Cataract](#).

B. Monochromacy:

- *Rod monochromacy*: inability to distinguish colours.
- *Cone monochromacy*: inability to distinguish colours.

B. Dichromacy:

- *Protanopia*: absence of red retinal photoreceptors.
- *Deuteranopia*: absence of red retinal photoreceptors.
- *Tritanopia*: absence of blue retinal photoreceptors.

B. Anomalous trichromacy:

- *Protanomaly*: poor red–green hue discrimination.
- *Deuteranomaly*: mildly affected red–green hue discrimination.
- *Tritanomaly*: poor blue–green and yellow–red/pink hue discrimination.

C. Blindness

- Blindness.
- Legally blind.

D. Other visual-related conditions

- [Photosensitive epilepsy](#).

2. Auditory

Auditory disabilities:

- Hearing loss.
- Hearing impaired.
- Deafness.

3. Physical

A. Traumatic Injuries

- Spinal cord injuries that affect upper body.
- Loss or damage to limb(s).

B. Full-body Diseases & Conditions

- [Arthritis](#).
- [Spina Bifida](#).
- [Cerebral Palsy](#).
- [Muscular Dystrophy](#).
- [Multiple Sclerosis](#).
- [Parkinson's Disease](#).
- [Locked in syndrome](#).
- [Amyotrophic Lateral Sclerosis](#) (ALS).

C. Arm, Hand and Finger Disorders

- [Osteoarthritis](#).
- [Lymphedema](#).
- [Trigger Finger](#).
- [Thromboangiitis obliterans](#) (Buerger's Disease).
- [Rheumatoid Arthritis](#).
- [Boutonnière Deformity](#).
- [Dupuytren Contracture](#).
- [Compartment Syndrome](#).

D. Other motor-related conditions

- [Chorea](#).
- [Tremors](#).
- [Myoclonus](#).
- [Dystonia](#).
- [Ataxia](#).
- [Tic disorders](#).

4. Cognitive, learning, and neurological.

A. Intellectual disabilities

- [Fragile X Syndrome](#).
- [Down Syndrome](#).
- [Autism spectrum](#).
- [Fetal Alcohol Spectrum Disorder](#) (FASD).
- [Williams Syndrome](#).
- [Prader-Willi Syndrome](#) (PWS).
- [Phenylketonuria](#) (PKU).

- Cerebral Palsy (in some circumstances).

B. Learning disabilities

- Dyscalculia (related to numbers/maths).
- Dyslexia (related to reading).
- Aphasia (related to understanding language).
- Attention Deficit Hyperactivity Disorder (ADHD).
- Non-Verbal Learning Disabilities.
- Language Disorders.
- Auditory processing disorders.
- Sensory processing disorders.

C. Memory impairments

- Dementia
- Alzheimer disease
- Limited short-term memory
- Missing long-term memory

5. Speech

- Apraxia of speech (AOS).
- Cluttering (also called "tachyphemia").
- Dysarthria.
- Speech sound disorders.
- Stuttering.
- Selective Mutism.

Disabilities are varied and complex

Disabilities are varied and changing:

- Disabilities may be spectrums
- Some people have multiple disabilities or conditions.

- Some disabilities change over time.
- Some disabilities change day to day.

Any **questions or comments**?

4. Let's meet some people

Assistive technology is a term for **assistive, adaptive, and rehabilitative devices or software** for people with disabilities or the elderly population.

Let's meet some people and see how assistive technologies have allowed them to **interact with the digital world**.

- [Screen reader software](#) (eg. JAWS, NVDA, VoiceOver).
- [Refreshable braille displays](#).
- [Screen magnifier software](#).
- [Head wand](#).
- [Quadstick - Sip and Puff](#).
- [Head switches](#).
- [Dragon Naturally Speaking](#).
- [Dynavox - Mouse emulation](#).
- [Steve's Story](#).

These are just some examples of a **broad range of Assistive Technologies** in use today.

Any **questions or comments**?

5. Accessibility profiles

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

One simple solution is to focus on **user profiles or personas** that can be used to represent different disability sets.

This means you can **focus on a small set of user types**, rather than a huge list of specific disabilities and impairments.

These user profiles or personas can then be used **throughout ever stage of your process** to ensure inclusion.

We're now going to **do an activity** to build out some accessibility profiles, based on Gov.UK.

6. How accessibility-mature is your organisation?

The W3C has a very detailed document called the W3C Accessibility Maturity Model that provides a **framework for measuring accessibility maturity**.

There is a **much simpler model** that allows you to quickly determine the accessibility-maturity of your organisation.

Let's all go to the [Acacado maturity model](#) and **try it out**.

That was a **high-level, organisational view** of maturity. Let's dive deeper!

I'm like you all to **answer a series of questions** in chat.

And these questions are **not designed to shame** your organisation, or individuals.

So, **it doesn't matter** if the answer are all either:

- *"No"*
- *"I don't know"*

These questions will **help to**:

- Define your current level of accessibility maturity
- Provide a roadmap for areas of improvement
- Decide highest priorities to focus on for our next session

1. Key documents

For these first questions, I'm going to ask whether you **know if some key**

accessibility documents exist.

But I'm also going to ask if **you'd know where to find them**.

Knowing the exact location of key documents is a sign of **shared knowledge across the team**, and a higher level of maturity.

1.1: Does your organisation have any sort of **commitment to accessibility/inclusion**?
If yes, would you know where to find it?

1.2: Does your organisation have a **public accessibility statement**?
If yes, would you know where to find it?

It presents information about the target level of web accessibility for the website and the methods used to achieve those targets.
It acknowledges any areas of the website where accessibility targets have not been met.
It is a powerful declaration of commitment.

1.3: Does your organisation have a **definition of "Supported technologies"**?
If yes, would you know where to find it?

This is a list of technologies (browsers, operating systems and assistive technologies) that you have tested your products with and can declare will work as expected with your product.

1.4: Does your organisation have **accessibility guidelines for digital product procurement**?

If yes, would you know where to find it?

2. Knowledge / Skills

2.1: Are all roles **aware of the importance of accessibility**?
PM's, PO's, BA's, IM's, QA's, Designers, Engineers

2.2: Have designers, engineers and QA's received **role-specific accessibility training**?

2.3: Have all key roles been trained in **how to test for accessibility**?

2.4: Have **accessibility champions** have been established within teams?

3. Processes

3.1: Do you have processes for **accessibility-related complaints** from the public?

3.2: Have [accessibility responsibilities](#) been **defined for all key roles**?

3.3: Are regular **accessibility design reviews** in place?

3.4: Are **accessibility requirements** included as part of:

- Sprint planning?

- User stories?
- Estimates? (Fibonacci, T-shirt sizing)
- Definitions of done?

3.5: Have **disability profiles or personas** been established, and are they in use?

4. Testing

4.1: Is **accessibility testing** conducted by:

- External experts
- Inhouse experts
- QAs
- Key roles within teams

4.2: Do teams have **automated accessibility testing tools** in place?

4.3: Are regular **accessibility audits** conducted on products before and after launch?

4.4: Are **people with disabilities** included in key processes?

5. Procurement and hiring

5.1: Is accessibility considered as part of all **digital product procurement**?

5.2: Is accessibility skills/knowledge considered as part of **recruitment**?

6. Different mediums

6.1: Are there processes in place to make sure **internal and external Word documents** re accessible?

6.2: Are there processes in place to make sure **internal and external PDF documents** re accessible?

6.3: Are all **email communications** accessible

6.4: Are all **social media communications** accessible? (Alt text, captions / transcripts etc)

7. Some questions for you, as managers

7.1: Are all digital managers aware of **standards and requirements that you need to comply with** for your digital products?

7.2: Do all digital managers have the **remit to stop something from going live** if it is not accessible?

Time for questions/discussion?