A 101 to WCAG v2.1

Welcome back Brisbane!
Welcome!

We’re back and thank you for coming along!

Thank you to Gaia Resources for my time, and the Console Group for the venue, catering, drinks and help getting this group off the ground.

Let’s say thank you to Console :-)
Who am I?

My name is Morgan I’m from Gaia Resources.

I specialise in making web-based software for Museums and Environmental Companies.

My access background:

- Ran the Perth Meetup group from 2013-2015
- Organised (at the time) Australia’s largest accessibility conference - 1 August 2014 - 2nd Website Accessibility Camp
- Frequently got in the marketing department’s face for inaccessible ideas
My two cents (not guideline based at all)

- Accessibility is more of a mindset than a compliance exercise
- Things that are not compliant can still be accessible if done in good faith (next slide for an example)
- If the problem is too big, start somewhere, do something
- Don’t use it as excuse to not do something
My personal example
Nind (1831, p. 28)
During the winter and early spring they [the Aborigines] are very much scattered; but as summer advances they assemble in greater numbers. It is at that season that they procure the greatest abundance of game. It is done by setting fire to the underwood and grass, which, being dry, is rapidly burnt. . . . As soon as the fire has passed over the ground, they walk over the ashes in search of lizards and snakes, which are thus destroyed (p. 29) in great numbers, and those which have escaped in their holes are easily discovered.

Nind (1831, p. 32)
During the summer and autumn months, the natives derive a large proportion of their food from fish. They have no canoes, neither can they swim, . . . They can, therefore, only catch those fish which approach (p. 33) the shores, or come into shoal water. They have neither nets, nor hook and line, and the only weapon they use is the spear, with which they are very dexterous. In the mouths of streams or rivers, they take large quantities, by weirs made of bushes, but the most common method is pursuing the fish into shoal waters, and spearing them, or as they lie basking on the surface. During calms, they walk over the mud and sand-banks, in search of flat fish, which are easily detected while lying at the bottom. At night, too, they light torches of grass-tree, and thus see the fish at the bottom, apparently asleep, when they very rapidly spear them. By these methods, vast quantities are taken, but it can only be done in dead calms. Another common method is to sit on a rock, motionless, and occasionally throw into the water pieces of limpet, or other shell-fish, keeping the spear under water until the bait is seized by a fish, when they are almost certain of striking it.

Nind (1831, p. 34)
The fresh-water swamps abound with a species of cray-fish, called challows, very like those found in rivulets in England. The procuring of these is the employment of the women. In the summer months when the water is partly dried up, they find them in holes in the ground, a foot or more deep, the entrance being small, but sufficiently wide within for the arm to be thrust to the bottom; they are very abundant, . . . The natives roast them in the ashes, and eat them in large quantities.

Nind (1831, p. 36)
At the dry seasons of the year large districts are abandoned for want of water.
In summary

Definitive article, hidden in a PDF, potentially lost knowledge:

Turned into accessible and consumable information:
What is WCAG?

The Web Content Accessibility Guidelines (WCAG) are part of a series of web accessibility guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C), the main international standards organization for the Internet.

https://en.wikipedia.org/wiki/Web_Content_Accessibility_Guidelines

- Released WCAG v2.0 in December 2008
- Ratified as an ISO Standard in October 2012
- Public draft for WCAG v2.1 in March 2017, latest draft August 2017
Let’s start with WCAG 2.0

Four major areas:

- Perceivable
- Operable
- Understandable
- Robust

Three levels: A; AA; and AAA.
A (except 1.1.1) easy, AAA quite hard.

1.1 Provide Text alternatives

1.1.1 Non-text Content

1.2 Alternatives for Time based media (eg captions)

1.2.1 Audio and video

1.2.2 Captions

1.2.3 Audio description

1.2.4 Captions (live)

1.2.5 Audio description (pre-recorded)

1.2.6 Sign Language Preferred

1.2.7 Extended Audio Description

1.2.8 Media Alternative (pre-recorded)

1.2.9 Audio-only (live)
1.3 Adaptable (meaningful sequence, works without style)

1.3.1 Info and relationships

1.3.2 Meaningful sequence

1.3.3 Sensory Characteristics

1.4 Distinguishable (contrast, resized)

1.4.1 Use of colour

1.4.2 Audio control

1.4.3 Contrast (minimum)

1.4.4 Resize text

1.4.5 Images of text

1.4.6 Contrast (enhanced)

1.4.7 Low or no background audio

1.4.8 Visual presentation

1.4.9 Images of text (no exception)
2.1 Functionality accessible via keyboards

2.1.1 Keyboard

2.1.2 No Keyboard

2.1.3 Keyboard (no keyboard)

2.2 Enough time to perform functions

2.2.1 Timing Adjustable

2.2.2 Pause, Stop, Hide

2.2.3 No timing

2.2.4 Interruptions

2.2.5 Re-authenticating

2.3 Seizure free content

2.3.1 Three flashes (red/green)

2.3.2 Three flashes
2.4 Navigable - help users find content, headings are semantic, location in the site visible.

2.4.1 Bypass blocks

2.4.2 Pages Titled

2.4.3 Focus Order

2.4.4 Link Purpose in context

2.4.5 Multiple ways

2.4.6 Headings and labels

2.4.7 Focus visible

2.4.8 Location

2.4.9 Link purpose

2.4.10 Section headings
3.1 Readable and understandable

3.1.1 Language

3.1.2 Content sections in EN

3.1.3 Unusual words defined

3.1.4 Abbreviations

3.1.5 Accessible to lower secondary education

3.1.6 Pronunciation guides

3.2 Predictable (eg consistent navigation)

3.2.1 On Focus does not change context

3.2.2 On Input does not change context

3.2.3 Consistent navigation

3.2.4 Consistent identification

3.2.5 Mechanism to turn off context changes
3.3 Input assistance

3.3.1 Error messages

3.3.2 Labels provided

3.3.3 Error suggestion

3.3.4 Error Prevention on legal, financial pages

3.3.5 Content-specific help

3.3.6 Error prevention on general pages

4.1 Compatible with assistive technology

4.1.1 Parsing code

4.1.2 Name, Role, Value
Why WCAG 2.1?

Long time between v2.0 (2008) and now.

2.1 more of an incremental change than rework, in fact 2.0 does not change; plug holes in 2.0, rework later. This means:

- There is some overlap
- Compliance with 2.1 means you are compliant with 2.0
- More focus on new devices and accessible behaviours on those devices

Thoughts from Dr Scott Hollier: [http://hollier.info/wcag21draft/](http://hollier.info/wcag21draft/)
What’s new WCAG 2.1

Three brand new guidelines in WCAG 2.1:

- Guideline 2.5 - Pointer Accessible
- Guideline 2.6 - Additional Sensor Inputs
- Guideline 2.7 - Speech

Make point (cursor area) at least 44 x 44px

Make application orientation agnostic

“Where an active control has a visible label, the accessible name for the control includes the text string used for its visible label.”
New success criteria in 2.1 - Level A

This: http://adrianroselli.com/2017/08/whats-new-in-wcag-2-1.html - this is the best overview I found researching this talk.

New Level A success criteria:

- 2.2.7 Accessible Authentication (recalling information)
- 2.4.11 Character Key Shortcuts (keyboard shortcuts do not rely on characters)
- 2.7.1 Accessible Name (as above)
- 3.2.6 Accidental Activation (accidental activation, e.g up keys, and being able to reverse that activation process.)
New success criteria in 2.1 - Level AA

- 1.4.10 Zoom content - zoom to 320px without site degrading functionality
- 1.4.11 Graphics Contrast - more refined definitions on graphic elements
- 1.4.12 User Interface Component Contrast - more refined definitions
- 1.4.13 Adapting Text - more refined definitions of loss of content when refining controls
- 1.4.14 Content on Hover or Focus - definition of activities that occur on hover, tap and keyboard focus
- 2.2.6 Interruptions (minimum) - easily reversible
- 2.5.1 Target Size - pointer is 44 x 44px (special exceptions allowed)
- 2.6.1 Orientation - works in any orientation
- 3.2.7 Change of Content - programmatic notification of change of content
New success criteria in 2.1 - Level AAA

- 1.3.4 Contextual Information - “In content implemented using markup languages, contextual information for controls, symbols, and regions can be programmatically determined using a publicly available vocabulary.”
- 2.5.2 Target Size (no exception) - no exceptions
New success criteria in 2.1 - More coming

WCAG 2.1 is still in draft, so more coming.
What’s a common sense approach?

If you don’t feel like reading lots of documentation here’s a few tests you can run without referencing the guidelines:

1. Unplug mouse / trackpad and use your keyboard
2. Turn off images
3. Turn off CSS
4. Turn on high contrast mode via the OS
5. Click on field labels in forms
6. Look for full-text alternatives
What resources can help?

- WebAim - http://webaim.org/
  - AccessIQ - http://accessiq.org/
- WAVE - http://wave.webaim.org/
- Tools listed by W3C: https://www.w3.org/WAI/ER/tools/
Cute new resources with colours

Simple for checking colour contrast: http://webaim.org/resources/contrastchecker/

Generating colour schemes: http://colorsafe.co/

Colour combinations: http://clrs.cc/a11y/
Over to the crowd

What are your experiences?

Tips and tricks? Favourite tools? Authors / Bloggers?

What do you want to hear about in future Meetups?

What format do you want?

Speakers and topics?
Cheers mate!

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