



Managing Accessibility Testing

Slides & links: pz.tt/testing-ahg22

 @accessibilityoz

AccessibilityOz 



Meet our team



- Dyslexia
- Moderate vision impairment
- Epilepsy
- Migraines
- Severe vision impairment
- Physical impairment
- PTSD
- Crohn's Disease
- Multiple Sclerosis
- Cerebral Palsy

**It's not just
about vision
impairments**



About Gian

1998

Worked on first accessible
website in Australia

Created Australia's first automated
accessibility testing tool

Invited Expert to W3C
WCAG2 Working Group

Worked on Melbourne 2006
Commonwealth Games

Managed Usability and
Accessibility Services at Monash
University

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AccessibilityOz


Founded AccessibilityOz



Released OzPlayer



Released OzArt



Spoke at the United Nations
on web accessibility

Chaired ICT Mobile Site
and Native App Testing
Committee

Inducted into the Centre for
Accessibility's Hall of Fame
as Accessibility Person of the
Year 2019

2022



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About our products



Factsheets



Videos

More information: www.accessibilityoz.com

 [@accessibilityoz](https://twitter.com/accessibilityoz) | pz.tt/testing-ahg22



About our services



**Website &
Application Audits**



**Mobile
Testing**



**Accessible Word,
PDF & HTML**



**On-site & Online
Training**



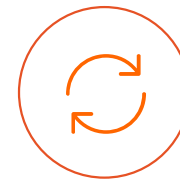
**Video
Accessibility**



**User
Testing**



**Support hours &
OzWiki access**



**Accessibility
during web
development**

Today's agenda

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Agenda

- Types of testing
- Questions to ask about testing
- Setting up testing
- Mobile testing
- VPATs
- Web accessibility in higher education

Access this
presentation and
all links at
pz.tt/testing-ahg22

 [@accessibilityoz](https://twitter.com/accessibilityoz) | pz.tt/testing-ahg22



Accessibility Basics:

[tinyurl.com/
mp8j63fb](https://tinyurl.com/mp8j63fb)

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Types of testing

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Types of testing

- Automated testing
- Manual testing
- Assistive technology testing
- Mobile and tablet testing
- User testing with people with disabilities
- Operating system and browser testing

Automated testing



Automated testing

- Can only test about 30% of all accessibility errors
- Page-by-page automated testing tools are usually free
- Spidering automated testing tools are usually not
- Has a bad reputation but can be very useful if used properly

Manual testing



Manual testing

- Absolutely essential when testing sites
- Manual testing is not the same as testing with assistive technologies
- Usually operate via test cases and testing methods

Manual testing methods

- SVR: Site Visual Review
- SMT: Site Manual Test
- SCR: Site Code Review
- KB: Keyboard
- CCA: Color Contrast Analyser
- PEAT: Epilepsy tool
- CSS: Style sheets disabled
- IMG: Images disabled
- TXT: Increase text size
- D: Device
- DKB: Device with keyboard
- DSY: Device with system settings

Assistive technology testing



Assistive technology testing

Screen readers:

- JAWS, NVDA, VoiceOver, ZoomText, Windows Narrator, ChromeVox, Adobe Read Out Loud, TalkBack, Read and Write Gold, BrowseAloud, ReadSpeaker, WindowEyes

Speech-recognition:

- Dragon Naturally Speaking, Windows Speech Recognition

Magnifiers (and inverse colors):

- ZoomText, Windows Magnifier, MAGic

Mobile and tablet testing

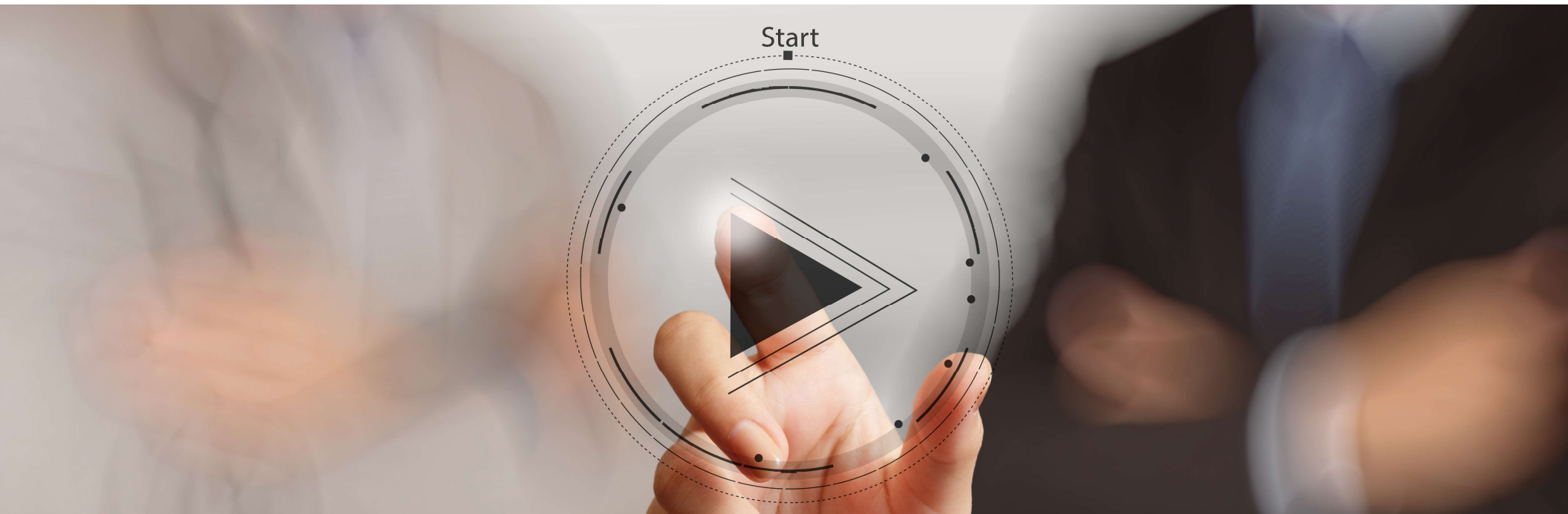


Mobile and tablet testing

- Mobile emulators **are not good enough**
- Look at Google Analytics and choose relevant devices
- Specific mobile tests: pinch zoom, landscape mode, inactive space, activation on touch

Why did we develop this methodology?

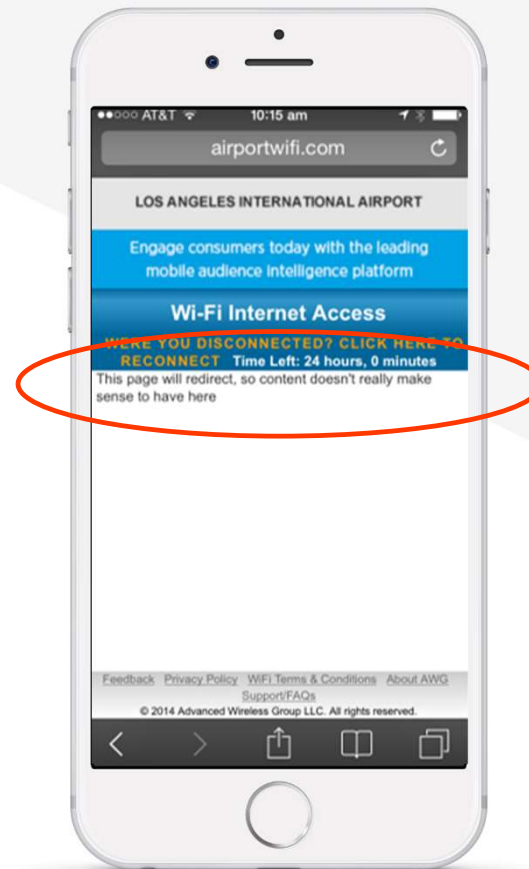
ICT Accessibility Testing Symposium has developed a methodology for evaluating the accessibility of mobile web sites. This document is an amalgamation of accepted mobile accessibility testing standards from around the world, including additional developments from the ICT Accessibility Testing Symposium's Mobile Sub-Committee.



**The documentation:
[www.accessibilityoz.com/
resources/mobile-testing/](http://www.accessibilityoz.com/resources/mobile-testing/)**

Test with real devices

I don't feel safe giving you
my credit card details...



Testing methods – Mobile Sites

There are four main testing methods in mobile site testing:

- **Devices:** test on mobile and tablet devices
- **Devices with assistive technology:** test on mobile and tablet devices with assistive technologies
- **Responsive Window:** test on responsively sized window on desktop
- **Desktop:** test on desktop

Testing methods – Native App

There are two main testing methods in native app testing:

- **Devices:** test on mobile and tablet devices
- **Devices with assistive technology:** test on mobile and tablet devices with assistive technologies

Mobile Site Testing Methodology Overview

Step 1: Identify devices

Step 2: Identify site type and variations

Step 3: Test critical issues

Step 4: Test mobile-specific issues

Step 5: Test mobile assistive technology and feature support

Native App Testing Methodology Overview

Step 1: Identify devices

Step 2: Define application functionality

Step 3: Test critical issues

Step 4: Test mobile-specific issues

Step 5: Test mobile assistive technology and feature support

**Virtual mobile
workshop:
8th December.**

**Check out the
AccessibilityOz
blog**

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User testing with PWD using AT





**Should only be done
once WCAG2 testing
has been completed
and the site is
mostly accessible.**

User testing with PWD using AT

- Who will you test with?
- How many people?
- What user journeys / tasks will be tested?
- What OS / browsers / devices / assistive technologies will be tested?
- What skills do the users need?
- Who will recruit the users?

User testing with PWD using AT

- Will the user tests be recorded?
- Who will facilitate the user tests?
- How long will be allocated to the user testing?
- How much will the users be paid?
- Where will the testing occur?
- How will the results be presented?

**Communicating
with people with
disabilities:**

**[tinyurl.com/
p7ue934u](https://tinyurl.com/p7ue934u)**

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Operating system and browser testing



Operating System and Browser testing

- Not every browser is the same!
- Not all content always appears in all browser sizes!
- Not all browsers support the same level of keyboard accessibility! Or inverse colors! (i.e. Chrome inverts colors in images too, FF/IE/Edge remove background images)



Questions to ask about testing

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Questions to ask about testing

- What is the aim of testing?
- Who will do the testing?
- How will the testing be conducted?
- When will the testing be conducted?
- What will be tested?
- How will the findings be presented?
- What testing tools will be used?

**What is the aim
of testing?**



What is the aim of testing?

- To find out if the site is accessible or not?
- To remediate any accessibility issues?
- To ensure there are no accessibility issues on launch?
- To address a user complaint?
- To address a DOJ complaint?

**Who will do the
testing?**



Choosing who will do the testing

Internal?

- Who has the skills required?

External?

- How to choose a consultancy.

**How will the testing
be conducted?**



Types of testing

- Automated testing
- Manual testing
- Assistive technology testing
- Mobile and tablet testing
- User testing with people with disabilities
- Operating system and browser testing



Exercise:

Choose one of your own sites and decide

- why you are testing
- who should do the testing
- how the testing will be conducted.

**When will testing
occur?**



Building a site

1. Conditions in the RFQ
2. Assessing RFQ response
3. Choosing the right people
4. Reviewing functional specifications
5. **Design evaluation**
6. Reviewing the Web Style Guide
7. **Template evaluation**
8. Training
9. **Final site audit**

Assessing RFQ responses

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When assessing RFQ responses

Consider an interview process where you can ask accessibility questions of developers to assess their knowledge. For example:

- ***What are the main accessibility requirements for forms?***
(A: visible field labels, coded with LABEL FOR and ID, HTML submit buttons, FIELDSETs with LEGEND elements for radio buttons and checkboxes)
- ***What are the main accessibility requirements for data tables?***
(A: TH or TH SCOPE or TH ID for table header cells, TD or TD HEADERS for table data cells, SUMMARY and CAPTION elements)

When assessing RFQ responses

Consider providing a link to a page and asking them to provide the issues they would identify:

		PhD	MSc/Other
Active	Male	0	0
	Female	1	0
Concluded	Male	2	2
	Female	0	0

Contact details

* Required

Name *
Please enter your full name

Phone number *
Please enter your phone number

Do you own any pets? *
This is to determine whether the housing we provide is suitable

☐ One dog

☐ One cat

☐ One dog and one cat

☐ One dog and more than one cat

☐ One cat and more than one dog

☐ More than one cat and more than one dog

Design evaluation

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Design evaluation

Test the designs for issues such as:

- Appropriate source order (changes don't occur prior to the current focus)
- Visible field labels for fields
- Appropriate color contrast

Design evaluation

03.04.2012 The Conversation

Food fight: the battle for justice from paddock ...

Recent reports of a "salt-tolerant" wheat claimed the plant would "help tackle food shortages due to soil salinity". Saline soils, and other types of land degradation, are indubitably a problem across much of Australia's landscape and elsewhere.

01.04.2012 WA Today

Stand and deliver

Some leading companies say offering workers the chance to stand at their desks rather than sit is paying off. There is the beehive, the "ear chairs", the Ned Kelly lounge, the dinosaur bones, the secret forts, the lemon tree and about 6000 bankers.

01.04.2012 News - Nine MSN

Dogs in the workplace reduce stress: study

Employers looking to ramp up productivity in these dog-eat-dog times might consider letting their staff bring Fido to the office, a scientific study published Friday suggests.

1 2 3 4 5 6

Updates from Meltwater News

Subscribe to Latest News



The list of outages will automatically begin to filter once you enter

Filter outages by suburb:

Information updated: 27 May 2012 1:00pm

Suburb	Street
Advancetown	Nerang Murwillumbah Rd



BigPond ▾ Directories ▾  Powered by Google™



Template evaluation

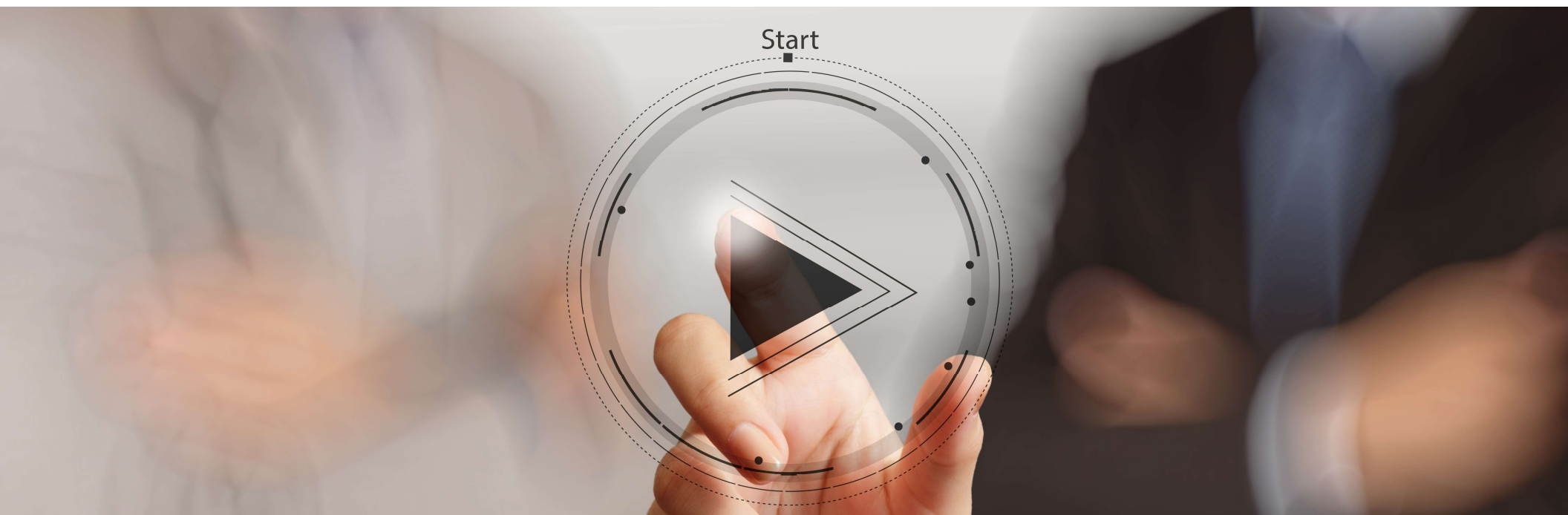
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Template evaluation

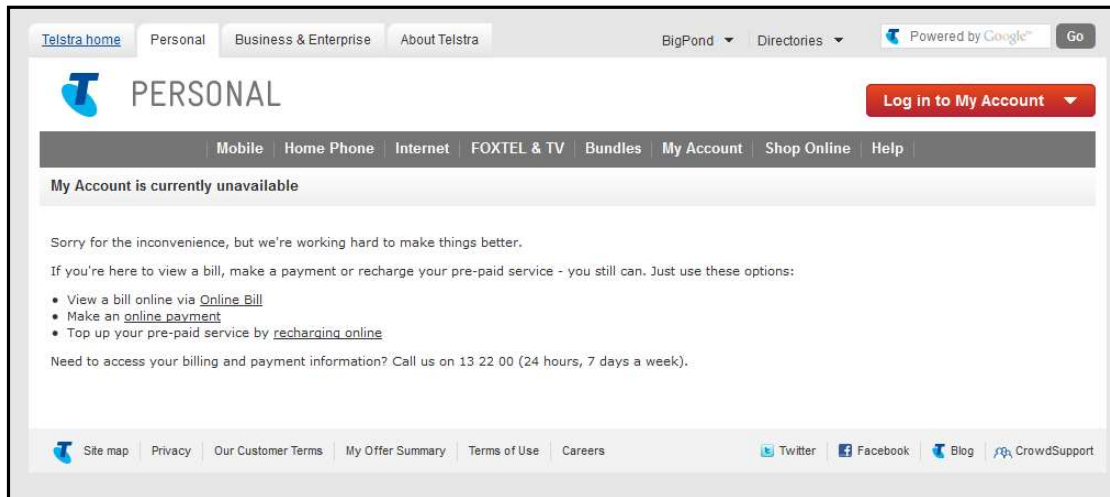
Have the templates evaluated for issues such as:

- Coded field labels (LABEL FOR and ID)
- Table headers
- Coded headings
- Hidden structural labels
- Correct layout with style sheets disabled
- Use of HTML5 and (overuse) of ARIA



ARIA videos:
www.accessibilityoz.com/resources/videos/

Template evaluation



[Open Feedback Dialog](#)
[Close Dialog](#)

Feedback

Can we get your email?

- You'll receive status updates on your ideas. (1-2 emails / month)
- You will never be spammed & can unsubscribe at any time.

[No, Thanks](#)

1. Submit an Idea

We've set up a feedback forum so you can tell us what's on your mind. Please go there and be heard!

1. 1,193 votes

How many votes?

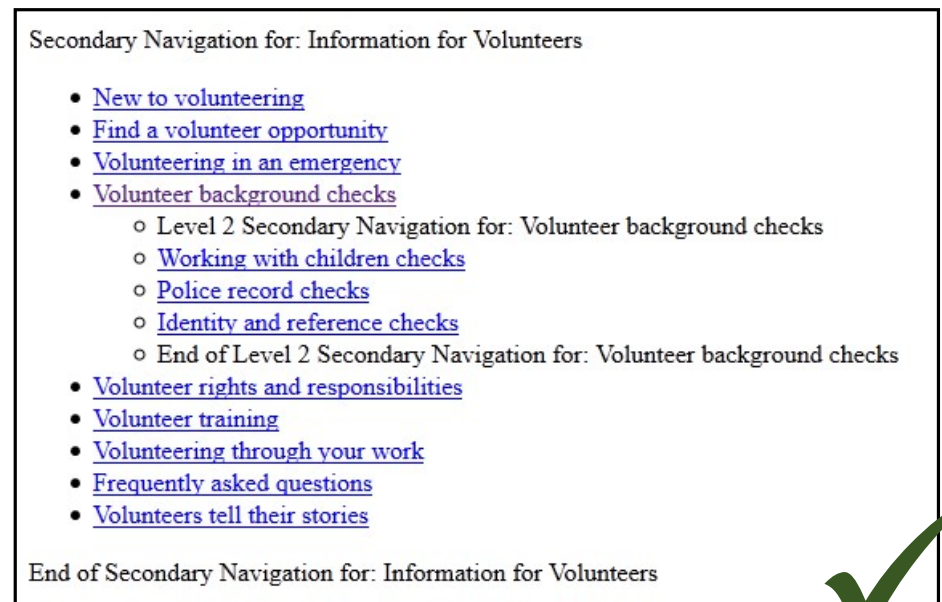
[Make myaccount reasonable to use](#)

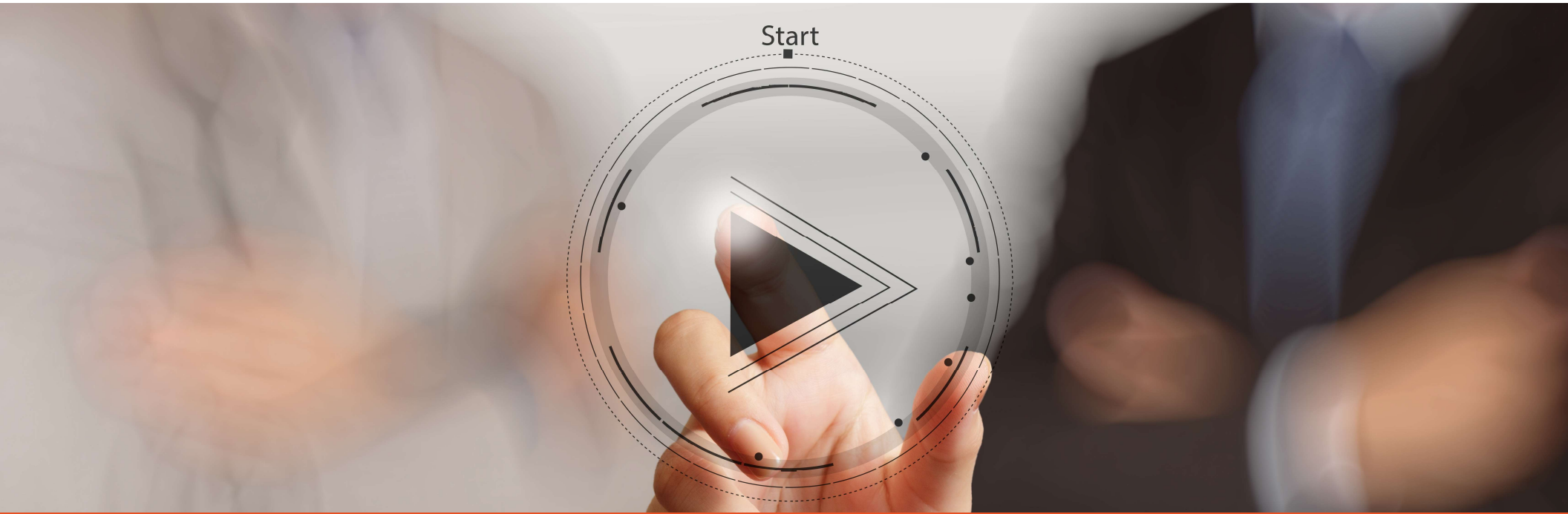
Template evaluation

CSS on:



CSS off:





Source Order vs Display Order vs Keyboard Order video



Demonstration: Turning off style sheets

Testing an existing web site / Final site audit

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Fixing current sites

1. Identify web sites, intranets, applications
2. Set priorities
3. Set timelines
4. Implement a contingency plan
5. Create policy
6. **Assess accessibility compliance**
7. Run training
8. Undertake accessibility fixes

Assess accessibility compliance

Decide what type of testing you want to complete:

- Automated testing only
- Homepage and template testing
- Limited-scope testing
- All site testing
- All site and all locations testing

**What will be
tested?**



Choosing what to test – pages

- All pages
- Some pages
- Directories that should be excluded
- Sub-sites

Choosing what to test – templates

- Home page
- Main pages
- Sub-pages
- Feature pages
- Search page
- Search results pages
- Form pages
- Table pages

Choosing what to test – processes

- Search results
- Form results
- Different iterations of one-page applications
- Login features

Choosing what to test – popularity

- Google Analytics
- Pages required by law
- Pages required by people with disabilities
- Contact Us page
- Search
- Location page

Choosing what to test – technologies

- Flash
- PDF
- Java
- JavaScript
- Word / PowerPoint / Excel
- Google Docs
- Social media

Choosing what to test – functionality

- Image galleries
- Slideshows
- Accordions
- Tabs
- JavaScript navigation
- Form validation

Choosing what to test – third-party

- Twitter feeds
- Video player
- Share features such as AddThis
- ForeSee surveys

**Social media
accessibility:
[tinyurl.com/
5c26ee7h](https://tinyurl.com/5c26ee7h)**

**Video
accessibility:
[tinyurl.com/
24n534m5](https://tinyurl.com/24n534m5)**





Exercise:
Using the previous
web site, decide
what should be
tested.

**How will the findings
be presented?**



What should the audit be ordered by?

- WCAG criteria?
- Category?
- Functionality?
- Who will fix it?
- Impact on users?
- Location?
- Occurrence?
- Ease of fixes?

How much information should be provided?

Mandatory:

- WCAG2 information
- Example location
- Example screenshot
- Example code
- Solution

Also consider:

- Mobile information
- Impact on users
- Location of all instances
- Corrected example
- Automated testing results

Walkthroughs

Absolutely essential if you want the site remediated.

Gives developers an opportunity to ask the “stupid” questions – are for you to catch errors before they are deployed across the site!



Exercise:
Using the previous web site, choose how to present the findings.

**What testing tools
will be used?**





Setting up testing

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Developing a scope analysis

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Scope analysis

- List all the pages that are to be tested
- List anything specific about the page that needs to be tested
- Specify how the page will be tested
- List anything about data entry / accessing certain content

Assigning tasks and timelines

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Assigning tasks

- Who is responsible for setting up testing from the client site? (dummy content, logins)
- Who is responsible for setting up testing from the testing side?
- Who is going to do what testing?

Assigning tasks

- What level of QA will be completed?
- Who is the Lead tester? (client liaison, accessibility source of truth)

Deciding timelines

- When can testing start?
- When is testing due?
- When is the report / results due?
- When will the walkthrough be conducted?



VPATs

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What is a VPAT

- Overview of the accessibility compliance of a product
- Owned and completed by the product owner
- Required by Section 508 refresh and all Federal Government projects

What is a VPAT is not

- An accessibility audit of the product
- Only for Government
- Only for web sites and applications
- Necessarily accurate

**How to read a
VPAT:**

**[tinyurl.com/
49c8up9c](https://tinyurl.com/49c8up9c)**

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Web Accessibility in Higher Education

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Why is accessibility different for higher ed?

Higher education:

- Many disparate units, doing many different things
- All types of technology, e-commerce, etc.
- Teeny-tiny budgets!

Accessibility Roadmap

**Map out what
you need to do**

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Phase A: Quick wins

1. Build an accessibility committee
2. Develop Disability Reference Group
3. Appoint an accessibility champion
4. Hire additional Disability Services staff
5. Conduct an Accessibility Stocktake
6. Address accessibility issues identified in the Accessibility Stocktake
7. Develop accessibility resources
8. Provide a communication method for staff and students to comment on accessibility

Phase B: Develop an Accessibility Plan

1. Write an Accessibility Statement
2. Develop an Accessibility Action Plan
3. Add Accessibility to University Policies and Procedures
4. Communicate the Accessibility Plan, changes to University Policies and Procedures

Phase C: Make accessibility fixes

1. Ensure all future University web sites and applications are accessible
2. Create an inventory of ICT (software, websites, classroom technologies, videos)
3. Identify web sites and applications to be tested
4. Conduct testing – purchase an automated accessibility testing tool
5. Contact vendors
6. Undertake fixes

Phase D: Develop accessibility knowledge

1. Provide training for web staff, Faculty and Disability Services
2. Run frequent Accessibility sessions
3. Develop case studies
4. Attend conferences



**What about
when there's
no budget?**

Presentations, articles and webinars

Conferences (and slides): a11yoz.com/conferences

Presentations and webinars: a11yoz.com/presentations

Articles: a11yoz.com/articles

3PlayMedia Webinars:
3playmedia.com/learn/webinars

Medium articles: medium.com/tag/accessibility

Mailing lists, Twitter

ATHEN: athenpro.org/content/mailing-list

WebAIM: webaim.org

WAI Interest Group: w3.org/Mail

Twitter: #a11y

Testing tools, instructional videos, examples

WAVE: wave.webaim.org

CCC Developer videos: a11yoz.com/videos

Accessibility Switchboard: accessibilityswitchboard.org

Accessibility Factsheets: a11yoz.com/factsheets

Accessible products

GrackleDocs: grackledocs.com

Accessible slideshow:
github.com/accessibilityoz/accessible-slideshow

OzPlayer (free in some circumstances): oz-player.com

AblePlayer: ableplayer.github.io/ableplayer

EasyChirp: easychirp.com

Free conferences and meetups

Global Accessibility Awareness Day (3rd Thursday of each May): accessibility.day

Web Accessibility Meetups:
meetup.com/topics/web-accessibility

A11y camps

- Australia
- Bay Area
- Boston
- Guelph
- London
- Montreal
- Ottawa
- Seattle
- Toronto
- Washington DC



**If you have a
teeny-tiny
budget**

Conferences

CSUN Assistive Technology Conference – Anaheim, CA
– March: csun.edu/cod/conference

Digital Accessibility Legal Summit – Washington, DC /
Online – November: accessibility.legal

AccessU – Austin, TX / Online – May:
knowbility.org/programs/john-slatin-accessu-2023

Conferences

ICT Accessibility Testing Symposium – Washington, DC
– May: ictaccessibilitytesting.org

Accessing Higher Ground – Denver, CO – November:
accessinghigherground.org

M-Enabling Summit – Washington, DC – October:
m-enabling.com

Paid options

IAAP Webinars:

accessibilityassociation.org/s/Webinars-Overview

OzWiki: a11yoz.com/ozwiki

Testing tools: a11yoz.com/ict17

Resources

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Resources

- Accessibility Factsheets
- WebAIM
- WAI IG mailing list
- WebAIM mailing list
- OzWiki
- WCAG2 Techniques
- PEATWorks
- Deque University
- SSB University
- IAAP
- 3PlayMedia
- Revised 508 Standards Toolkit



Thank you for coming today

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I'm speaking each day at AHG

Tomorrow: Social media accessibility

Thursday: Updates to the mobile methodology

Friday: How to create accessible video

AND

The Exhibit Hall

Further Resources



Factsheets



Videos

More information: www.accessibilityoz.com

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**Mobile
Testing**



**Accessible Word,
PDF & HTML**



**On-site & Online
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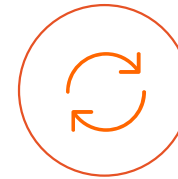
**Video
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8th December.
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blog
Code:
MOBILEA11Y50**

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your feedback**
[surveymonkey.com/r/
/feedback-ahg22](https://surveymonkey.com/r/feedback-ahg22)

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Q&A

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