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Changes to the **AHRC** **DDA** Web Advisory Notes

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About me

- Started in accessibility in 1998
- Worked on the first accessible Australian web site
- Worked as the Melbourne 2006 Commonwealth Games accessibility specialist
- Spent six years working on the W3C Web Content Accessibility Guidelines, 2.0



Accessibility in the Web Development LifeCycle



Accessibility in the WDLC

“...creating accessible web content should be an integral part of the web design cycle, and accessibility features should be incorporated into all aspects of the design process.”



Accessibility in the WDLC

- Choose the right developer
- Review key documents
- Design evaluation
- Training (content authors and developers)
- Template evaluation
- Audit



UN Convention of Human Rights for People with a Disability



UN Convention of Rights

“While the Australian Government has primary responsibility for meeting Australia’s obligations under the Convention, all sections of society, including industry, educational institutions, and community organisations, must play an active role in upholding the rights established by the Convention...”



UN Convention of Rights

“Accordingly, any failure to provide full access to the web and other internet-based technologies for people with a disability may be seen as a violation of human rights.”



Multiple formats



Multiple formats

“There are wide variations in the accessibility of different file formats, and some formats are generally considered to be more suited to a particular type of content than others. Feedback that the Commission has received from users and web accessibility experts suggests that traditional HTML is the most universally accessible format.”



Multiple formats

“Other formats have advantages and disadvantages that should be considered when deciding which format to use. For example, the RTF format is considered to be more generic, but it is less suited than Microsoft Office Word to representing complex tables so that they can be navigated successfully by screen-reading software.”



Multiple formats

“In general, material will be accessible to the greatest number of users when it is published in multiple accessible formats.”



Inaccessible documents



Inaccessible documents

“It should also be borne in mind that some content cannot be made accessible online to some people with a disability, especially if it is inherently graphical in nature.”



Inaccessible documents

“Organisations that make such content available online need to consider strategies for making it accessible, for example, by *providing text descriptions of pictorial content*, or using *qualified contractors to produce tactual maps and diagrams on request*.”



PDFs



PDFs

“The Commission’s advice, current October 2010, is therefore that *PDF cannot be regarded as a sufficiently accessible format* to provide a user experience for a person with a disability that is equivalent to that available to a person without a disability, and which is also equivalent to that obtained from using the document marked up in traditional HTML.”



PDFs

“The Commission will *review the accessibility of PDF documents again in 2013*, by which time it is expected that the provision, support, and utilisation of accessibility features will have improved.”



Document security



Document security

“Some file formats provide mechanisms for enhancing the security of documents by preventing unauthorised editing, copying, or printing. Some of these mechanisms are not compatible with accessibility for people with a disability, and document authors should ensure that security features do not prevent access to the document by assistive technology.”



Document security

“If there are concerns about ensuring the authenticity of material published on the web in multiple formats, then a *statement should be included that specifies which format is to be regarded as definitive or authorised*, and noting that additional formats are being provided to maximise access.”



People with cognitive disabilities



Cognitive disabilities

“It should be emphasised, however, that accessibility of web content cannot always be achieved solely through compliance with WCAG 2.0.”



Cognitive disabilities

“In addition to these Guidelines, web designers and authors will need to make themselves familiar with a range of tools, resources, and emerging best-practice solutions, as they meet their accessibility goals and responsibilities under the DDA and the Convention. *This is particularly the case in areas that are not comprehensively addressed in WCAG 2.0, such as the needs of people with cognitive disabilities.*”



The role of the accessibility specialist



Accessibility Specialist

“The Commission strongly encourages web designers to use expert advice and information that is up to date with web content publishing and access challenges and solutions. A number of Australian companies and organisations provide consultancy and design services with specialisation in accessibility.”



Accessibility Specialist

“There is currently no national accreditation system for expertise in this area, so potential clients of such services should use standard assessment practices such as speaking with referees and examining samples of their work.”



Ten common failures



Ten common failures (1 – 3)

1. “Failure to include appropriate text descriptions (such as “alt-text” labels) for images;
2. Failure to provide accessible alternatives when using a visual CAPTCHA;
3. Failure to use technologies (such as Flash and JavaScript) in ways that are accessible;”



Ten common failures (4 – 6)

4. “Failure to use HTML features appropriately to indicate content structure such as the hierarchy of headings;
5. Failure to explicitly associate form input controls with their labels;
6. Failure to ensure sufficient difference between foreground (text) colour and background colour;”



Ten common failures (9 – 10)

9. “Failure to ensure that web pages can be used from the keyboard (that is, without the mouse);
10. Failure to alert the user to changes on a web page that are triggered automatically when selecting items from a dropdown menu.”



Transitioning to WCAG2



Transitioning to WCAG2

Government

“All Australian government websites should comply with the timelines and conformance requirements of the NTS, whether or not they are specifically mandated to do so. In particular, *state and territory governments are strongly encouraged to comply with the AA conformance level that applies to Commonwealth Government websites.*”



Transitioning to WCAG2

Non-Government

“Non-government websites and web resources whose development commences after July 1 2010 should comply with WCAG 2.0 to a minimum of AA-Level conformance;”



Transitioning to WCAG2

Non-Government

“Existing non-government websites or web resources that undergo substantial change in the period July 2010 – December 2013 should comply with WCAG 2.0 to a minimum level of AA conformance;”



Transitioning to WCAG2

Non-Government

“All existing non-government websites and web content should comply with WCAG 2.0 to a minimum level of AA conformance by December 31 2013.”



Accessibility supported technologies



Accessibility supported

“WCAG 2.0 does not provide a list of accessibility supported technologies, since such a list is likely to require regular updating and is likely to have local variation.”



Accessibility supported

“The Commission will be working with the Australian Government Information Management Office (AGIMO) and other stakeholders to develop more detailed advice about technologies (and features of technologies) that are considered to be accessibility supported in the Australian context.”



Accessibility supported

“Until such advice is available, web developers should give serious consideration to *using those technologies that are known to be compatible with **WCAG 1.0***. In cases where this is not practical, they should seek expert accessibility advice before using other technologies.”



Limits on the obligation to comply with the DDA: Web Advisory Notes



Limits on obligation to comply with the DDA

“The advice provided in these notes is intended to give effect to the requirement of the DDA for access to be provided without unreasonable barriers that exclude or disadvantage people with disability. *In some (but not all) circumstances, obligations under the DDA to provide equal access are limited by the concept of unjustifiable hardship.*”



Limits on obligation to comply with the DDA

“Where issues of unjustifiable hardship have to be decided, section 11 of the DDA requires the courts to consider all relevant circumstances of the case, including...”



Limits on obligation to comply with the DDA

- “The nature of the benefit or detriment likely to accrue, or be suffered by, any persons concerned;
- The effect of the disability of a person concerned;
- The financial circumstances, and the estimated amount of expenditure required to be made, by the person claiming unjustifiable hardship”



Limits on obligation to comply with the DDA

- “The availability of financial and other assistance to the person claiming unjustifiable hardship; and
- In the case of the provision of services, or the making available of facilities—any relevant action plans given to the Commission under section 64 of the DDA.”



More information



http://www.hreoc.gov.au/disability_rights/standards/www_3/www_3.html

<http://www.gianwild.com/2010/11/28/australian-human-rights-commission-updates-their-web-advisory-notes/>



What is Policy Tester?

- Achieve compliance with regulatory and internal standards
- Obtain assessments and establish governance during application development and content creation to mitigate risk and reduce cost

Web Accessibility:

- WCAG
- Section 508
- AccessiWeb

Web Privacy:

- Data collection practices
- PII collection
- 3rd party linking
- GLBA, COPPA, HIPPA

Web Content Quality:

- Broken links, spelling errors
- Metadata
- Content inventory

Benefits

- Mitigate risk related to regulatory non-compliance
- Reduce the cost for achieving compliance by providing automated assessments
- Establish governance during application development and content creation
- Provide visibility for Management and Legal
- Enable collaboration among all stakeholders

Product features & capabilities

- Web portal style interface
- Enterprise-class architecture designed to scale assessments
- Central repository, which enables creating an inventory of your Web properties
- User roles and access permissions
- Centralized test policy for Accessibility
- High-level dashboards displaying status and compliance risk



Product features & capabilities (cont.)

- Manual and automatic Web site explore
- Browser plug-in for Accessibility testing
- Detailed compliance reports
- Advisories and education
- Issue management
- Defect Tracking Systems integration
 - RTC, RQM, CQ, HPQC, etc.
- Content Management Systems integration
 - Interwoven TeamSite, Documentum, etc.
- REST-style API

The screenshot shows the IBM Rational Policy Tester interface. At the top, it displays 'Web Content Accessibility Guidelines 2.0 Level AA Compliance' with a 'Last Updated' timestamp of 12/9/2009 9:45:34 AM. Below this is a summary table with columns for Checkpoint, Description, and Quantity. The table lists various checkpoints such as 1.1.1, 1.2.3, 1.3.1, 1.4.4, 2.1.1, 2.4.6, 2.4.7, 3.1.1, 3.1.2, 3.2.1, and 3.2.2, each with a corresponding description and a quantity value.

Checkpoint	Description	Quantity
1.1.1	All non-text content that is presented to the user has a text alternative, except for these situations: controls, time-based media, text, sensory experience, CAPTIO...	324
1.2.3	An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alt...	1
1.3.1	Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text.	706
1.4.4	Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality.	584
2.1.1	All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying func...	161
2.4.6	Headings and labels describe topic or purpose.	59
2.4.7	Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible.	1
3.1.1	The default human language of each Web page can be programmatically determined.	2
3.1.2	The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminat...	51
3.2.1	When any component receives focus, it does not initiate a change of context.	2
3.2.2	Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before us...	1

The screenshot shows the 'About Issue: 2029' window in the IBM Rational Policy Tester. It displays a table with columns for Issue, Status, Page, Page, Element, # of Line Numbers, Check, Check, Level, and Grad. The issue 2029 is listed as 'Open' and is associated with the element 'http://www.alforumutual.com/object, id="subscribe"'. Below the table, there is a 'General Information' tab and an 'Advisory' section. The advisory text explains that all OBJECT elements should contain alternative content to serve as a fallback if the object's media is not supported. It provides an example of an OBJECT tag and its corresponding alternative content, along with a 'Rationale' section explaining the importance of this for users whose browsers do not support the OBJECT tag or the media type of the object. Finally, it lists 'Guideline references' including WCAG 1.0 checkpoint 1.1, WCAG 2.0 checkpoint 1.1.1, WCAG 2.0 checkpoint 1.2.3, Section 508, Part 1194.22, Paragraph a, and AccessWeb 4.1.

Support for WCAG 2.0 and WAI-ARIA

IBM. Rational. Policy Tester

Vio Onut | Help | Support | About | Log Out

Training | Jobs & Reports | Administration

Jobs & Reports > ASE > Altoro > Corporate > QS of Corporate > Web Content Accessibility Guidelines 2.0 Level AA Compliance

Setup | Progress | Results

Export | Email

Accessibility Issues
 Broken Links
 File Inventory
 Filtered Links
 Pages
 Pages with Unfilled Forms
 Section 508 Compliance
 Web Content Accessibility Guidelines 2.0 Level A Compliance
Web Content Accessibility Guidelines 2.0 Level AA Compliance

Summary | Group | Show | Search | Layout

There are 806 distinct violations of W3C WCAG 2.0 Level AA Guidelines appearing in 806 places across 13 pages of the site

All items | Group: Checkpoint

Items 1-25 of 27

Action: Export to Excel | Apply

Go to page: 1 of 2 | Apply

	!	Checkpoint	Description	Quantity
<input type="checkbox"/>		1.1.1	Non-text Content: All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, exce...	76
<input type="checkbox"/>		1.3.1	Info and Relationships: Information, structure, and relationships conveyed through presentation can be programmatically determined...	319
<input type="checkbox"/>		1.3.2	Meaningful Sequence: When the sequence in which content is presented affects its meaning, a correct reading sequence can be prog...	13
<input type="checkbox"/>		1.3.3	Sensory Characteristics: Instructions provided for understanding and operating content do not rely solely on sensory characteristics ...	25
<input type="checkbox"/>		1.4.1	Use of Color: Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or disti...	136
<input type="checkbox"/>		1.4.3	Contrast (Minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:	13
<input type="checkbox"/>		1.4.4	Resize text: Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss ...	10
<input type="checkbox"/>		1.4.5	Images of Text: If the technologies being used can achieve the visual presentation, text is used to convey information rather than im...	20
<input type="checkbox"/>		2.1.2	No Keyboard Trap: If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be move...	3
<input type="checkbox"/>		2.2.1	Timing Adjustable: For each time limit that is set by the content, at least one of the following is true:	16
<input type="checkbox"/>		2.2.2	Pause, Stop, Hide: For moving, blinking, scrolling, or auto-updating information, all of the following are true:	14
<input type="checkbox"/>		2.3.1	Three Flashes or Below Threshold: Web pages do not contain anything that flashes more than three times in any one second period, ...	4
<input type="checkbox"/>		2.4.1	Bypass Blocks: A mechanism is available to bypass blocks of content that are repeated on multiple Web pages.	13
<input type="checkbox"/>		2.4.4	Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its ...	2
<input type="checkbox"/>		2.4.5	Multiple Ways: More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the re...	13
<input type="checkbox"/>		2.4.6	Headings and Labels: Headings and labels describe topic or purpose.	11

Save | Close

v8.0: Reporting – issue high-lighting in source code

v8.0: Dynamic assessment plug-in

The screenshot shows a Mozilla Firefox browser window displaying the Altoro Mutual website. An accessibility assessment tool is overlaid on the page, showing a list of 13 issues. The issues are categorized as 13 High, 3 Medium, and 1 Low. The tool also displays the HTML source code of the page, with a callout box pointing to a specific image element.

Issue visualization (top callout)

Instant assessment of the viewed page (middle callout)

Issue visualization (bottom-left callout)

Accessibility advisories (bottom-right callout)

Accessibility Issues List:

- 13 High, 3 Medium, 1 Low, 1 Information
- Altoro Mutual
- Provide alternative text for all images.
- Provide alternative text for all images.
- Provide alternative text for all images.
- Provide alternative text for all images.
- Provide alternative text for all images.
- Provide the role and name of HTML <input type = {image, text, password, checkbox, radio}> form controls
- The page should provide a skip link at the top of the page or use WAI-ARIA landmarks.
- For a data table (role != presentation), identify headers for the table rows and columns.
- For a data table (role != presentation), identify headers for the table rows and columns.
- For a data table (role != presentation), identify headers for the table rows and columns.
- For a data table (role != presentation), th and td elements should be related via

V8.0: Enhanced Accessibility Dashboard

Issues by severity

Severity	Count
High	979
Medium	124
Low	122
Information	1330

Top accessibility issues

Issue	Count
Create link phrases that make sense when read out of context (AccessWeb 1.0 version).	355
Provide alternative text for all images.	75
Separate adjacent links with more than whitespace.	66
Provide the role and name of HTML <input type = (image, text, password, checkbox, radio)> form controls.	49
Do not use the same link phrase more than once when the links point to different	44
Use images.	42
Use the role = presentation, th and td elements should be related via	42

Pages scanned over time

Date	High	Medium	Low	Information
8/13/2010	2500	500	200	1000
8/14/2010	2000	400	150	900
8/15/2010	1500	300	100	800
8/16/2010	1000	200	50	700

Issue History - All Report Packs

Scanned Pages Over Time - All Report Packs

Date	Pages
8/13/2010	42
8/14/2010	42
8/15/2010	42
8/16/2010	42

Accessibility Module Overview

What is Accessibility?

- **Accessibility of a product is enabling its use by a person with disabilities (and in a usable manner). Accessibility applies to web sites, kiosks, mobile devices, and other communications, e.g., documents.**

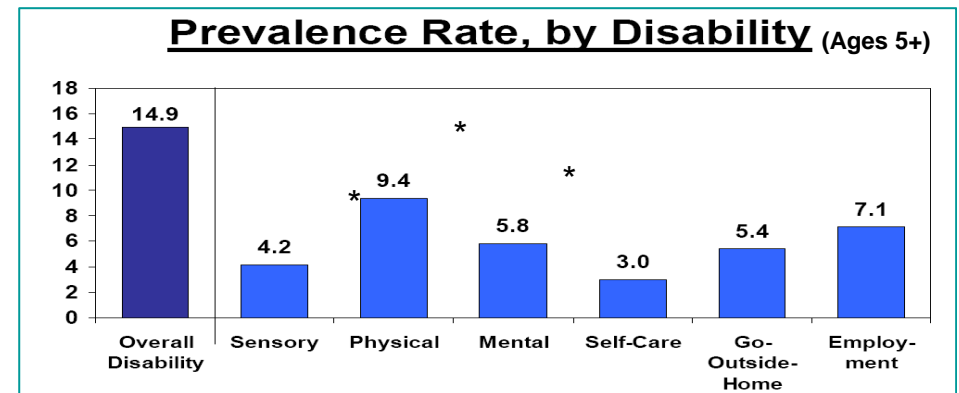
Web pages often have access issues for people with disabilities like:

- **Visual** (use screen reader or other technologies)
- **Hearing** (use captioning, transcripts)
- **Physical** (use special devices, larger targets)
- **Mental** (need reduced memory loads, more time)

▪ Usable accessibility is a journey!

▪ Sources:

- <http://www-03.ibm.com/able/index.html>
- <http://www.section508.gov/index.cfm?FuseAction=Content&ID=3>
- <http://www.w3.org/standards/webdesign/accessibility>



* What we can support by design



Accessibility beneficiaries are a powerful market segment

People with disabilities:

- More than \$1 Trillion in aggregate annual income
- More than \$220 Billion in disposable income annually
- Twice the spending power of teens and 17x's the spending power of "tweens"

Mature consumers:

- 1 in 4 over age 50 and 1 in 2 over 65 have a disability
- People aged 50+ spent nearly \$400B In 2003

People with low literacy:

- 900+ million illiterate people represent 25 percent of the world's youth and adults

Non-native language speakers:

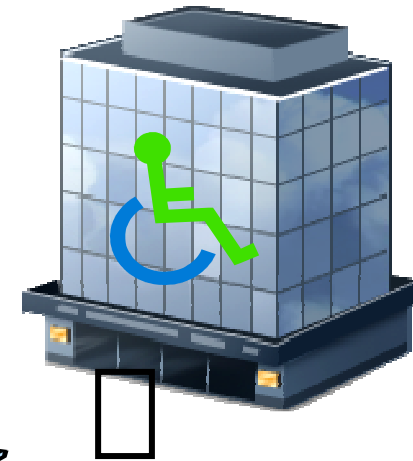
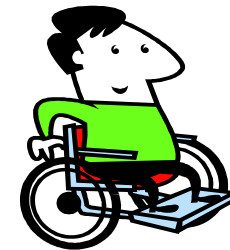
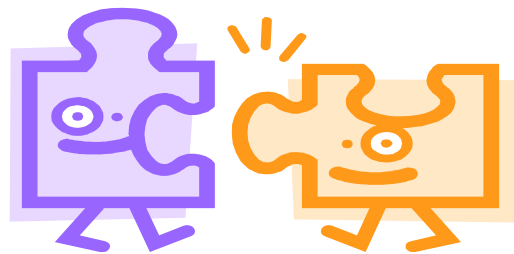
- Nearly 47M people speak a language other than English at home



*I/T Accessibility has two sides to the solution –
Just like Physical accessibility*

Accessible virtual environment

**Assistive Technology
+
Accessible IT Systems**



**Wheelchair
+
Accessible Building**

Accessible physical environment



Accessibility

- IBM Human Ability & Accessibility Center www.ibm.com/able
 - Recognized thought leaders in the area of Accessibility
 - Help provide direction for the Policy Tester – Accessibility product
 - Develop the product's rule set
 - Conduct research and develop new technology in the area of Accessibility
 - Consulting services – assessments, strategy, education
- Policy Tester identifies Web accessibility non-compliance issues related to
 - U.S. Section 508
 - WCAG 1.0 (Priority 1, Priority 2, Priority 3)
 - WCAG 2.0 (A and AA)
 - AccessiWeb (France)
 - Can be customized for other standards
- IBM provides a complete solution: subject matter expertise + tooling

Thank you

