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Web Accessibility

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Overview

- Definition
- Legislation
- Guidelines and standards
- Resources and tools
- Tips
- Drupal

Definition

Web accessibility

- Means that people with disabilities can use the Web (i.e., perceive, understand, navigate, interact with, and contribute to the Web)
- Encompasses all disabilities that affect access to the Web, including visual, auditory, physical, speech, cognitive, and neurological disabilities

Resource: <http://www.w3.org/WAI/intro/accessibility.php>

Why accessibility

- Usability
- Search engine optimization (SEO)
- Mobile technologies
- Legislative requirements
- Human rights

Canada and legislation

November 2010 – Federal court orders Federal Government websites to be accessible

Case information

- Access for persons with visual impairments
- Focus on inability to apply to jobs online
- 15 months to update websites
- Constitutional challenge (charter of rights violation)

In the news

- <http://www.theglobeandmail.com/news/politics/court-orders-ottawa-to-make-websites-accessible-to-blind/article1817535/>
- <http://www.thestar.com/news/article/898704--judge-orders-federal-government-to-make-websites-accessible-to-the-blind>
- <http://www.cbc.ca/canada/story/2010/11/29/blind-woman-federalo29.html>

Ontario and legislation

Accessibility for Ontarians with Disabilities Act (AODA)

[\(http://www.mcass.gov.on.ca/en/mcass/programs/accessibility/\)](http://www.mcass.gov.on.ca/en/mcass/programs/accessibility/)

Accessible Information and Communications Standard

- Proposed standard that will require obligated organizations to provide information and communication to people with disabilities in a way that accommodates their disability, and to ***make websites accessible*** (

<http://www.mcass.gov.on.ca/en/mcass/programs/accessibility/OntarioAccessibilityLaws/DevelopingStandards/infoAndComm.aspx>)

AODA

Obligated organizations:

Public sector, non-profit sector, and private businesses - everyone

Timelines:

Proposed timelines for compliance TBD

Web-accessibility requirements:

Expected WCAG 2.0 Level AA and ATAG 2.0

Note on Level A & AA hybrid -> Level AA

About WCAG 2.0

- Web Content Accessibility Guidelines
- The World Wide Web Consortium (W3C)
- Three Levels: A, AA, AAA

Useful links:

- About W3C - <http://www.w3.org/Consortium/>
- About WCAG 2.0 - <http://www.w3.org/TR/WCAG20/>

WCAG 2.0 high-level guidelines

Web content must be:

1. Perceivable
2. Operable
3. Understandable
4. Robust

Perceivable - examples

- Use text alternatives for non-text
 - Alt text for images (contextualized)
- Provide alternatives for time-based media
 - Video captions, transcripts of audio
- Present content in different ways
 - Text-only, source order, maintain info and structure
- Separate foreground from background
 - Contrast ratio, state change on hover - box/underline

Operable - examples

- Make all functionality available from a keyboard
 - Tab order, forms (labels and fields)
- Provide enough time to read and use content
 - Filling out forms, purchasing on e-commerce sites
- Do not design content that can cause seizures
 - Flashing more than three times in one second etc.
- Provide ways to help users navigate, find content, and determine where they are
 - Meaningful page titles, headings, and links

Understandable - examples

- Make text content readable and understandable
 - Abbreviations, plain language
- Make web pages appear and operate predictably
 - Consistent menus, pop-ups, tables for tabular data
- Help users avoid and correct mistakes
 - Provide error warnings/descriptions

Robust - examples

- Maximize compatibility with current and future user agents, including assistive technologies (semantic markup, progressive enhancement)

WCAG 2.0 Quick Reference

Your Customized WCAG 2.0 Quick Reference List

This Quick Reference is currently customized to include:

- **Techniques and Failures:** General, HTML, CSS, SMIL, Client-side Scripting, Server-side Scripting, Flash, WAI-ARIA
- **Success Criteria Levels:** A, AA (Hidden: AAA)
- **Sections:** Introduction, Sufficient Techniques and Failures, Advisory Techniques, Conformance Requirements

How to meet WCAG 2.0 – Quick Reference

(<http://www.w3.org/WAI/WCAG20/quickref/>)

Notes

- Show sufficient techniques & failures
- 'Understanding Guideline' links & info

Customize this Quick Reference

Technologies:

- Show HTML techniques and failures
- Show CSS techniques and failures
- Show SMIL techniques and failures
- Show Client-side Scripting techniques and failures
- Show Server-side Scripting techniques and failures
- Show Flash techniques and failures
- Show WAI-ARIA techniques and failures

Levels:

- Show Level A Success Criteria
- Show Level AA Success Criteria
- Show Level AAA Success Criteria

Sections:

- Show Sufficient Techniques and Failures
- Show Advisory Techniques

Save Settings Option:

- Save these settings (requires cookies)

Customize with Settings Above

WebAIM

WebAIM (<http://webaim.org/>)

WCAG 2.0 checklist

<http://webaim.org/standards/wcag/checklist>

WAVE Accessibility Evaluation Tool

<http://wave.webaim.org/>

- Errors, features, alerts (icons on web page)
- Structure/order (tab order)
- Text-only view (source order)
- Outline (of headings – note h1 and skipping headings)

WAVE Icons

Index of WAVE Icons

Hover over the icons with your mouse for a brief description or click on an icon for a detailed description.

Errors:



Alerts:

HTML Alerts:



Script Alerts:



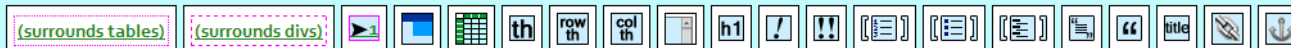
Media Alerts:



Accessibility Features:



Structural & Semantic Elements:



University of Toronto

<http://achecker.ca/checker/index.php>

- Code-line report of accessibility issues

Contrast ratio

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: large-scale text; incidental text/images; logotypes

Testing tools

- Juicy Studio (<http://juicystudio.com/services/luminositycontrastratio.php>)
- Snook.ca (http://snook.ca/technical/colour_contrast/colour.html)

ATAG 2.0

- Authoring tool accessibility guidelines
 - Applies to UIs for authoring web content (CMSs)
 - Accessible UI for web content authors
 - Applies to content output from authoring tools
 - Accessible web content output for website visitors
- WCAG 2.0 compliance for UI and content output
- Additional ATAG specific guidelines

Links

- <http://www.w3.org/WAI/intro/atag.php>
- <http://www.w3.org/TR/ATAG20/>

WAI-ARIA

Links

- <http://www.w3.org/WAI/intro/aria>
- <http://www.w3.org/TR/wai-aria/>

WAI-ARIA, the Accessible Rich Internet Applications Suite, defines a way to make Web content and Web applications more accessible to people with disabilities. It especially helps with dynamic content and advanced user interface controls developed with Ajax, HTML, JavaScript, and related technologies. Currently certain functionality used in Web sites is not available to some users with disabilities, especially people who rely on screen readers and people who cannot use a mouse. WAI-ARIA addresses these accessibility challenges, for example, by defining new ways for functionality to be provided to assistive technology. With WAI-ARIA, developers can make advanced Web applications accessible and usable to people with disabilities. – W3C

Progressive enhancement

Progressive Enhancement consists of the following core principles:

- basic content should be accessible to all browsers
- basic functionality should be accessible to all browsers
- sparse, semantic markup contains all content
- enhanced layout is provided by externally linked CSS
- enhanced behavior is provided by unobtrusive, externally linked JavaScript
- end user browser preferences are respected

(http://en.wikipedia.org/wiki/Progressive_enhancement)

ARIA and progressive enhancement

(<http://www.alistapart.com/articles/aria-and-progressive-enhancement/>)

Example or two of what not to do

PDFs

A word or two about PDFs

- Usually inaccessible (e.g., glossies)
- Provide HTML equivalents (e.g., magazines)
- Warn users that a link leads to a PDF
- Format links to PDFs correctly
 - Document name (PDF)
 - Document name (PDF)

Note about brackets

Forms

Notes

- Understand that assistive technologies go into a forms mode
- Pay attention to what content is inside and outside of the form (make sure what needs to be part of the form is – e.g., tips and error messages)
- Pay attention to the order of items within the form (e.g., want tips to come before a form field)

Resources

- <http://simplyaccessible.com/tags/form/>

Drupal accessibility statement

<http://drupal.org/about/accessibility>

"As an inclusive community, we are committed to making sure that Drupal is an accessible tool for building websites and that Drupal helps you create websites that are themselves accessible."

- Drupal 7 focus – with fixes to 6 where possible
- Drupal core conformance with WCAG 2.0 and ATAG 2.0
- Encourage and support semantic markup
- Some WAI-ARIA support
- D7AX hashtag indicates accessible modules and accessible themes

Drupal and accessibility

- Content types
 - Forms UI accessibility, content output
- Text editor (WYSIWYG editor)
 - Editor UI accessibility, content output
- Semantic CCK and Semantic Views
- Accessible Content Module
 - QUAIL PHP accessibility library (checks HTML)
- Theme