

Reviewing ADA Requirements and Your Website

Learning about Accessibility and
Ways to Make Your Site
More Accessible

Randy J. Ulses
University of Cincinnati
OASFAA Diversity Committee Co-Chair

Assessment

- Why?
 - Web author
 - Diversity content
 - Nothing else interesting
 - Other

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- Office web content?
 - Given to IT/other
 - CM system
 - Full on coding
 - No idea

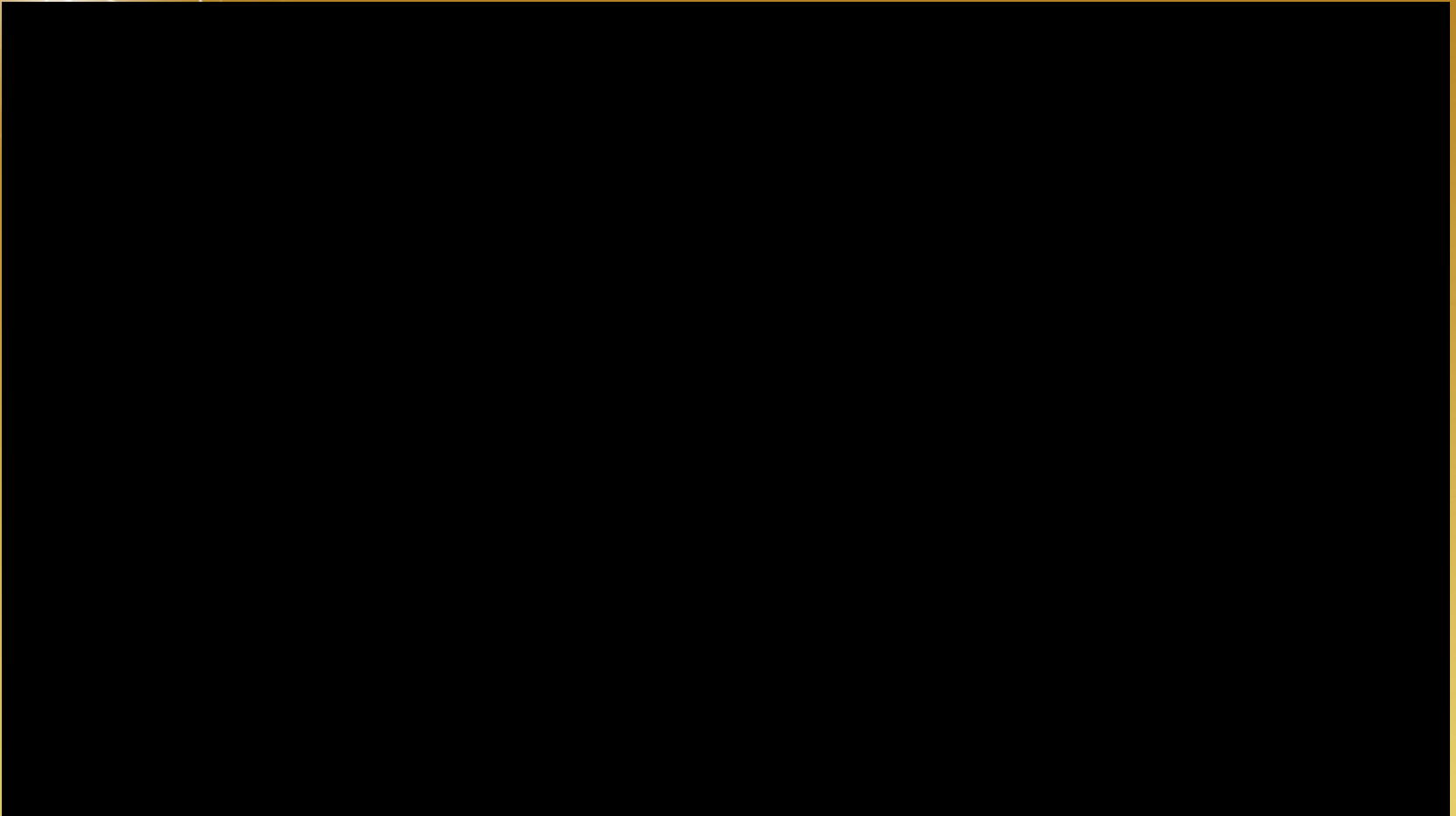
Assessment

- Why?
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- Office web content?
 - Given to IT/other
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 - No idea
- What office adaptations do you have?

Assumptions

- Website is likely your key communication with students
- Think about how persons access your key information
- Accessibility is an important piece of creating inclusivity
- Right thing to do as well as legal/required
- Can help in overall use of your website
- Key resource for materials is the **World Wide Web Consortium (W3C)**

Accessibility Video



From <http://www.w3.org/WAI/videos/standards-and-benefits/>

4 Principles of Accessibility

- **Perceivable**
 - Information can't be invisible to all senses
- **Operable**
 - Interface cannot require interaction that a user cannot perform
- **Understandable**
 - Content or operation cannot be beyond a user's understanding
- **Robust**
 - As technologies and user agents evolve, content should remain accessible

Perceivable

- **Text alternatives for non-text content**
 - Short equivalents for images, icons, buttons, and graphics
- **Captions and other alternatives such as transcripts for multimedia**
- **Content can be presented in different ways**
 - Headings, lists, tables and other structures in the content marked-up properly
- **Content is easier to see and hear**
 - Color not used as the only way of conveying information or identifying content
 - Default foreground and background color combinations provide sufficient contrast
 - Text is resizable up to 200% without losing information
 - Images of text are resizable, replaced with actual text, or avoided where possible

Operable

- **Functionality is available from a keyboard as well as mouse**
- **Users have enough time to read and use the content**
 - Pause, stop, or hide moving, blinking, or scrolling content
 - Re-authenticate when a session expires without losing data
- **Content does not cause seizures**
 - Avoid blinking/flashing content
- **Users can easily navigate, find content, and determine where they are**
 - Pages have clear titles and are organized using descriptive section headings
 - More than one way to find relevant pages within a set of web pages

Understandable

- **Text is readable and understandable**
 - Define any unusual words, phrases, idioms, and abbreviations
 - Use clearest and simplest language possible
- **Content appears and operates in predictable ways**
 - Navigation mechanisms repeated on multiple pages appear in the same place each time
 - User interface components repeated on web pages have same labels each time
- **Users are helped to avoid and correct mistakes particularly with forms**
 - Descriptive instructions, error messages, and suggestions for correction
 - Opportunity to review, correct, or reverse submissions if necessary

Robust

- **Content is compatible with current and future user tools**
 - Responsive to size of device
 - Robust content is compatible with different browsers, assistive technologies, and other user agents
 - Ensuring markup can be reliably interpreted, for instance by ensuring it is valid
 - Providing a name, role, and value for non-standard user interface components

Best Practices: Contrast

- Contrast between text and background colors needs to be high enough to be easily read
- WCAG 2.0 requires specific contrast ratios for text and background colors.
- Use WebAIM Color Contrast Checker available at <http://webaim.org/resources/contrastchecker/>

Example: Contrast ratio

⊗ Insufficient

Some people cannot read text if there is not sufficient contrast between the text and background. For others, bright colors (high luminance) are not readable; they need low luminance.

☑ Sufficient

Some people cannot read text if there is not sufficient contrast between the text and background. For others, bright colors (high luminance) are not readable; they need low luminance.

Best Practices: Headings

- Use to organize information into an outline format
- Screen readers and some browsers provide a list of headings so user can jump to their choice of topics
- Do not use headings to decorate or emphasize text
- Do not use headings on large blocks of text

Example: Using headings to organize content

✘ Lack of headings

Headings and Subheadings

HTML elements provide information on structural hierarchy of a document. Using elements correctly will help convey additional meaning to assistive technology. In many cases, doing so will also make your document easier to edit.

For documents longer than three or four paragraphs, headings and subheadings are important for usability and accessibility. They help readers to determine the overall outline of a document and to navigate to specific information of interest.

Headings are classified into levels from one to six. The highest level is "Level 1" and often corresponds to the title of the page or major document section. Sub-headings proceed through increasing header levels. The lower the number, the smaller and more detailed a section.

Visual readers identify headers by scanning pages for text of a larger size or a different style. Assistive technology users are not able to see these visual changes, so changing the style is not a sufficient cue.

Instead, the headings must be semantically "tagged" so that assistive technology can identify headings. This can be presented to the user as a navigation aid.

This makes adding headings one of the most important tasks for a screen reader user so that he or she can learn about the page. Note that heading levels are not a substitute for descriptive alt text, which can be edited by users.

✔ Using headings and subheadings

Headings and Subheadings

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Purpose of Headings

For documents longer than three or four paragraphs, headings and subheadings are important for usability and accessibility. They help readers to determine the overall outline of a document and to navigate to specific information of interest.

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Meaning vs. Formatting

Best Practices: Hyperlinks

- Always use hyperlink (link) text that is descriptive of the content it is linking to
- Do not use phrases like “read more” or “click here”
- Be careful not to select a blank character space before or after the word(s); verify the underline does not extend past your text

Example: Using link text to describe target page

No information

For more information on device independence, [click here](#).

Meaningful information

Read more [about device independence](#).

Best Practices: Color

- Not all people can see certain colors and some people can't distinguish clearly between colors
- Screen readers will not read changes in color, therefore information could be missed
- Provide text as an alternative to color information.

Example: Using color to convey meaning

Color only

Required fields are in red

Name

Email

Color and symbol

Required fields are in red and marked with an *

Name

Email *

Best Practices: Tables

- Large amounts of information can best be displayed in a table, but you must assign headers to rows and/or columns, otherwise a screen reader will read the cell data linearly without giving any context for the information
- Always use headers at the top of the columns, at the beginning of a row or in both places
- Always include caption information describing what the table is about
- Do not create tables by hand, either using tabs or styling text into columns
- Set the width of the table to a percentage, not a fixed numerical value

Best Practices: Navigation

- Ensure navigation across pages via consistent naming, styling, and positioning
- Provide more than one method of navigation, such as a site search
- Help users understand where they are in a website or page by providing orientation cues, such as breadcrumbs and clear headings.
- Provide distinct styles for interactive elements, such as links and buttons, to make them easy to identify.

Best Practices: Navigation

Example: Unique styles for different link states

✔ Style links to stand out from text

Some people can't use a mouse and use only a [keyboard to navigate](#) through web pages.

It is important that users can reach all interactive elements using the keyboard, and that it is clear which element has focus.

Visible keyboard focus could be a border or highlight that moves as you tab through the web page.

✔ Mouse hover style

[keyboard to navigate](#)



✔ Keyboard focus style

[keyboard to navigate](#)

✔ Touch or click style

[keyboard to navigate](#)



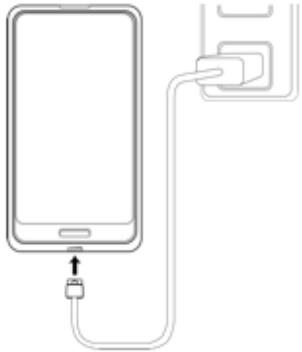
Best Practices: Images (Alt text)

- Provide accurate descriptions
- Use an action word for images containing a link or requiring action
- Do not use the filename, "photo", or "image" to describe an image
- Avoid using text as images; if it must be used, provide the text in the alt text
- Use a longer description for graphs and diagrams
- Describe the image as a whole, even if multiple images are used

Best Practices: Images (Alt text)

Example: Using alternative text to communicate important information

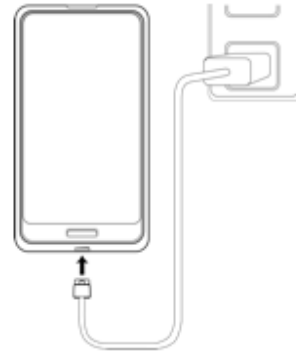
✘ Uninformative



Charging the phone: Connect the phone to a power outlet using the cable and power adaptor provided.

Alternative text for image:
"Charging phone"

✔ Informative



Charging the phone: Connect the phone to a power outlet using the cable and power adaptor provided.

Alternative text for image:
"Plug cable into the bottom edge of the phone."

Alternative text is usually not visible; it is included in this example just so you can see what it is.

Best Practices: PDFs

- If necessary to link to PDF, provide a link to accessible plug-in
- Include additional text providing a resource for the content
 - To view these files, you will need [Adobe Acrobat Reader](#), a free download.
- Ensure formatting allows for proper screen reading; avoid layers or edit modes

Best Practices: Videos

- Important to have all videos appropriately captioned
- Consider transcripts with description of images as well
- Users can pause, stop, or adjust the volume of audio that is played on a website

Resources: Guides

- Your Campus Accessibility or Disability Office
- Your IT area
- Web Accessibility Initiative (WAI)
 - <http://www.w3.org/WAI/>
- DOJ Software Accessibility Checklist
 - <https://www.justice.gov/crt/software-accessibility-checklist>
- HHS Multimedia File 508 Checklist
 - <https://www.hhs.gov/web/section-508/making-files-accessible/checklist/multimedia/index.html>

Resources: Downloads

- Free Screen Reader
 - <https://www.nvaccess.org/download/>
- Free Color Contrast Analyzer
 - <https://developer.paciellogroup.com/resources/contrast-analyser/>
- Free Microsoft Accessibility Checker
 - <https://support.office.com/en-us/article/Rules-for-the-Accessibility-Checker-651e08f2-0fc3-4e10-aaca-74b4a67101c1?ui=en-US&rs=en-US&ad=US>

Resources: PDFs

- Adobe PDF Accessibility Wizard
 - <https://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html>
- Microsoft Creating Accessible PDFs
 - <https://support.office.com/en-us/article/create-accessible-pdfs-064625e0-56ea-4e16-ad71-3aa33bb4b7ed#PickTab=Windows>
- Free PDF Accessibility Checker
 - <https://www.access-for-all.ch/en/pdf-lab/pdf-accessibility-checker-pac.html>

Next Steps

- Review your site for easy wins/updates
- Consider changes to content or design
- Keep in mind
 - Rome was not built in a day
 - Any improvements made increase accessibility
 - Awareness begins the journey
- Full evaluation of site with campus resources when ready or appropriate



Thank You!

Consider joining the **OASFAA Diversity Committee**

James McDougal

jmcdouga@kemba.org

Randy Ulses

ulsersj@ucmail.uc.edu



**Thank You
CampusLogic
for Your
Sponsorship!**