

Web Accessibility

Introduction to Web Accessibility

A good overview is written and available on the W3C web site at <http://www.w3.org/WAI/intro/wai-overview-slides#how>

Initial research shows that at least 20% of users are affected by conformance to of web accessibility initiatives.

Essential Components of Web Accessibility

- 508 Standards (legal, set by US Government)
- Web Accessibility Initiative set forth by the W3C organization (WAI) – 4 guidelines which provide guidance on accessibility of web sites for people with disabilities. There are a total of 14 guidelines with checkpoints. The four guidelines include:
 - Web Content Accessibility Guidelines (see included handout, 2nd edition in the works) – in combination with the 508 federal standards (see included handout) makes up the rules to follow.
 - Authoring Tool Accessibility Guidelines (tools to creates accessible web sites)
 - User Agent Accessibility Guidelines (software for users with disabilities)
 - XML Accessibility Guidelines (in work)

WAI also has supporting resources which include a checklist (see included handout), techniques (many are listed in the included handout), and FAQs.

Common Barriers

These guidelines address barriers in Web pages which people with physical, visual, hearing, and cognitive/neurological disabilities may encounter.

Common accessibility problems on Web sites include:

- images without alternative text
- lack of alternative text for imagemap hot-spots
- misleading use of structural elements on pages
- uncaptioned audio or undescribed video
- lack of alternative information for users who cannot access frames or scripts
- tables that are difficult to decipher when linearized
- tables which are used as site layout
- sites with poor color contrast

Accessibility Contributes to Universal Design (Design for All)

Accessible Web design contributes to better design for other users:

- Multi-modality (support for visual, auditory, tactile access) benefits users of:
 - mobile phones with small display screens, Web-TV, kiosks.
- Multi-modality increases usability of Web sites in different situations:
 - low bandwidth (images are slow to download);
 - noisy environments (difficult to hear the audio);
 - screen-glare (difficult to see the screen);
 - driving (eyes and hands are "busy").
- Redundant text/audio/video can support:

- different learning styles; low literacy levels; second-language access.
- Style sheets can support:
 - more efficient page transmission and site maintenance.
- Captioning of audio files supports:
 - better machine indexing of content; faster searching of content.

Quick Tips to Make Accessible Web Sites

List of 10 quick tips

1. **Images & animations:** Use the **alt** attribute to describe the function of each visual.
2. **Image maps.** Use the client-side **map** and text for hotspots.
3. **Multimedia.** Provide captioning and transcripts of audio, and descriptions of video.
4. **Hypertext links.** Use text that makes sense when read out of context. For example, avoid "click here." Use the **title** attribute to describe link in an `<a>` tag.
5. **Page organization.** Use headings, lists, and consistent structure. Use **CSS** for layout and style where possible.
6. **Graphs & charts.** Summarize or use the **longdesc** attribute. Longdesc links to an html document with a description of the graph or chart.
7. **Scripts, applets, & plug-ins.** Provide alternative content in case active features are inaccessible or unsupported.
8. **Frames.** Use the **noframes** element and meaningful titles.
9. **Tables.** Make line-by-line reading sensible. Summarize.
10. **Check your work.** Validate at validator.w3.org. Use tools, checklist, and guidelines at <http://www.w3.org/TR/WCAG>

Accessible Electronic Documents

It is recommended that you use the Styles when creating a word document or other electronic document. Using the styles creates accessible documents. These accessible documents then will create accessible PDFs which is a commonly used file format on the web.

When you use the Styles, you create logical markup of your document by applying headings, proper bulleted lists, etc.

Scanned PDFs are not accessible and should not be used unless an accompanied text alternative is supplied to explain the PDF document. This type of PDF is considered a graphic or picture of the text that is on that page and is not readable by assistive technologies nor is it readable by search engines. If you need to go through all the work to supply the extra text, it would be just as easy to recreate the document so that it could be put in PDF format that is accessible.