Accessibility

Web Design in a Nutshell, Third Edition

Chapter 5

Why is web accessibility important?

- The ultimate goal for any site is to make your content available to the widest possible audience

- This includes making your site available for use by anyone, regardless of their abilities and the devices they use for access.

- Making your site accessible has other benefits, such as making your pages rank higher in the search engines and easier to generate cross-platform, cross-browser compatible pages

- In the United States, 12.6 percent of the population has some form of disability, including 17.3 percent of Oklahomans

Section 508 Law

- In 1998, the U.S. Congress passed a law requiring Federal agencies to make electronic and information technology accessible to people with disabilities.

- In 2004, the Oklahoma state legislature passed HR 2197, a law modeled after the federal law requiring state agencies to only purchase technology that is accessible to people with disabilites

- The Oklahoma law doesn't require technology to be upgraded immediately, but rather the next time technology is refreshed. Many designers have been following these standards since the federal law was passed in 1998.

Types of Disabilities

- There are four major types of Disabilities:

  Vision impairment — Low Vision or Blindness

  Mobility impairment — Limitations on use of limbs, such as hands or problems with fine motor control

  Auditory impairment — Hearing difficulties or problems understanding language due to an auditory difficulty

  Cognitive impairment — Problems include memory, reading comprehension, and visual comprehension.

Assistive Technologies: Vision Impairment

Problems: Low Vision or Blindness

Screen Readers read back the contents of a web page to the user. They get confused easily when your pages are too complicated or rely on things like Javascript for navigation or comprehension.

Screen Magnifiers provide an enlarged view of the screen for users who may not be completely blind, but have difficulty reading small type.

Braille Display converts onscreen text to braille for reading.

Assistive Technologies: Mobility Impairment

Problems: Limitations on use of motor skills, such as problems typing or using a mouse

Alternative Keyboards provide solutions to specific problems, such as large keys or alternate layouts such as being able to type with only one hand

Virtual Keyboards provide an onscreen keyboard for those who can't use a regular keyboard, but can use a mouse

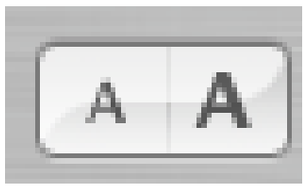
Voice Recognition can understand a user's commands for those who can't use a keyboard or mouse

Web Accessibility Techniques

Start With Meaning: As we discussed earlier in the semester, use HTML tags to provide meaning to your content, such as using heading tags to emphasize content and using lists, quotes and blockquotes to provide structure to your pages

Order Matters: Well organized documents, both in terms of markup and writing, are easier for anyone to understand, not just those with disabilities. Screen readers and aural browsers tend to read items in the order they appear in the source code.

Web Accessibility Techniques

Use Zoom Layouts: All browsers have a text zoom feature: 

In some cases, there's a button for increasing or decreasing the size of the fonts on a page. In others, the feature can be found in the view menu. Pages should be designed in such a way that they degrade gracefully when enlarged or reduced.

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Web Accessibility Techniques

Provide Alternatives: Use alt tags for images and title tags everywhere to give users a sense of onscreen content and actions that might be taken by clicking on a link. When using Audio or Visual content, provide transcripts and/or closed captioning for hearing impaired users.

Use Color Intelligently: Use backgrounds carefully to provide enough contrast between foreground text and background colors or images. Not everyone sees color the same.

Web Accessibility Techniques

Define Access Keys: Access keys are specified combinations of keys that take the user to a specific location on a page or site. On Windows, these are defined to be used in conjunction with ALT key; on the Mac, these are defined to be used in conjunction with the Control key.

Test Your Pages: Bobby is a free online tool, but you should also test your content with actual people because they might catch something you never thought of because you don't have their specific disability.

Web Standards

Web Content Accessibility Guidelines: The World Wide Web Consortium began establishing standards for accessibility in the last 1990s. The most recent standard is version 2.0 adopted in April 2006. Most of the online testing services test against all standards and will offer lists of problems that should be fixed to meet the standards, similar to the CSS and HTML checkers.

Web Accessibility Statement: Large organizations will typically have an accessibility statement describing how they meet the standards and where to go for more information.