DISABILITY TRAINING NETWORK

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Quarterly Update

Accessible and Useful Web Pages

Postsecondary institutions commonly provide information and instruction via the world wide web. Therefore, web designers need to be cognizant of the accessibility and usability of their web pages for individuals with and without disabilities. Web accessibility refers to how well web content is processed by electronic and information technology (e.g., adaptive technology), and web usability refers to how well web content is understandable and easy to use. The World Wide Web Consortium (W3C) has developed Web Content Accessibility Guidelines to facilitate the accessibility and usability of web pages.

W3C Web Content Accessibility Guidelines

Provide equivalent alternatives to auditory and visual content.

Some individuals are unable to process auditory and visual content through these respective senses, and some individuals are unable to process textual information. However, providing information in equivalent formats allows all of these individuals access to the information. For example, text equivalents can be provided for non-text information (e.g., images, video, audio), and vice versa, allowing accessibility for a larger number of individuals.

Don't rely on color alone.

In other words, ensure that text and graphics are understandable when viewed without color because some individuals are unable to differentiate among colors or use adaptive technology that does not convey the color information. Additionally, it is important to ensure that there is sufficient contrast between the background and textual information. Web designers can also provide an alternate black and white, high contrast version of the website.

Use markup and style sheets and do so properly.

Standard Hypertext Markup Language (HTML) can be accessed by all browsers, so it is the preferred code used for creating accessible websites. Cascading Style Sheets (CSS) allow web designers to control the style of their entire website without having to code the information for each page. Individuals who need to modify the style of the website for accessibility purposes can easily do so when the web designer has used CSS.

Clarify natural language usage.

Marking up language changes on a website allows speech synthesizers and Braille devices to automatically switch to the new language, thus increasing the accessibility and usability of the website. Also, providing explanations of abbreviations and acronyms allows individuals to decipher their meanings.

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Create tables that transform gracefully.
Because tables can be difficult for adaptive technology, such as screen readers, to access, only use tables when absolutely necessary and to present tabular data. Do not use tables to lay out web pages, and provide line-by-line summaries for the tables.

Ensure that pages featuring new technologies transform gracefully.
Although web designers should use new technologies that solve the problems of older technologies, they should also make sure that their web pages are accessible for individuals who chose to turn off the newer features or who use older browsers.

Ensure user control of time-sensitive content changes.
The use of moving, blinking, scrolling, or auto-updating objects or web pages should be avoided for several reasons including: individuals with cognitive or visual disabilities may not be able to read moving text quickly; screen readers are unable to read moving text; individuals with physical disabilities may not be able to move quickly enough to interact with the moving objects; and seizures can be triggered by flickering or flashing objects.

Ensure direct accessibility of embedded user interfaces.
Sometimes an embedded object has its own interface. In this case, the embedded object's interface should also be accessible and should follow the W3C guidelines for web accessibility.

Design for device-independence.
Web designers should ensure that users can activate web page elements via a variety of input devices (e.g., mouse, keyboard, voice, head wand). Usually, this can be accomplished by creating web pages that allow keyboard interaction.

Use interim solutions.
Until adaptive technologies are able to address inaccessible aspects (e.g., pop-ups, side-by-side text tables, hyperlinks) of web pages, the web designer should ensure that these features are accessible to individuals using older browsers or adaptive technology.

Use W3C technologies and guidelines.
W3C technologies, such as HTML and CSS, allow individuals to utilize adaptive technology to access the web page. When W3C technologies are not used, the web designer should provide equivalent accessible web pages. However, the equivalent pages must be updated as often as the primary pages.

Provide context and orientation information.
To facilitate the understanding of complex web pages or elements, group the elements and provide contextual information about the relationships.

Provide clear navigation mechanisms.
Web designers can use navigation mechanisms, such as navigation bars and site maps, to increase the likelihood that individuals can easily navigate the web site. Navigation mechanisms need to be used in a consistent and clear manner.

Ensure that documents are clear and simple.
Clarity and simplicity allow individuals to easily understand content. Therefore, web designers should ensure that they use the clearest and simplest language, supplement text with graphics, and apply a style of presentation that is consistent throughout the web site.

Source: W3C. (1999). Web Content Accessibility Guidelines 1.0. Retrieved November 30, 2007 from http://www.w3.org/TR/WAI-WEBCONTENT/

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