Web Accessibility Guidelines

Access to information and electronic technology for persons with disabilities is an essential component of the Texas State University commitment for a barrier-free learning environment. The Americans with Disabilities Act of 1990 (ADA) and Section 508 of Workforce Investment Act requires public institutions to provide effective communication through all mediums, including the Internet. The Department of Information Resources (DIR) for the State of Texas has also published Parallel guidance:

- **TGC 2054.451**, enacted in 2005, requires that all state agencies and institutions of higher education, provide state employees and members of the public access to and use of electronic information resources.
- **1 TAC 213** enacted state standards for procurement, development, or usage of EIR for people with disabilities and also aligns accessibility standards with the federal regulations set forth in Section 508.

A federal and industry based initiative, the Web Content Accessibility Guidelines (WCAG) has developed a comprehensive set of guidelines for developers of content, authoring tools, evaluation tools, and others seeking standards for web accessibility. The initiative produced WCAG 2.0, levels A, AA, and AAA,

The following guidelines have been developed to assist university personnel in developing Web documents that comply with the necessary minimally accepted standards that Texas State Web documents must meet. By using the following guidelines in the design and programming of Web documents, you ensure that all Internet users can use your website, regardless of their disability or the limitations of their equipment or software. While these guidelines present the minimally acceptable standards of accessibility, Web page developers are expected to maximize the accessibility of their pages for universal access by referring to the complete text at the Web locations specified at the end of these guidelines.

**Common Guidelines**

Guideline 1: Provide an alternative tag or text for every graphic or multimedia element. Although some people cannot use images, movies, sounds, applets, etc., directly, they may still use pages that include equivalent information to the visual or auditory content.

Justification: If the person viewing the page is using text-to-speech software, a non-graphic browser or has the graphics turned off in their browser, graphic links will be inaccessible.
Solution: Provide "ALT" tags for image reference anchors and include descriptive text within the anchor. For video or audio links, provide a text description of the links on your page.

Guideline 2: Provide concise descriptive text links, but not overly wordy.

Justification: Text descriptors need to convey information about the nature of the link. Links need to be understood when read out of context. Conversely, too much text makes the page inefficient, and some browsers have difficulty reading longer attributes.

Solution: Provide a brief and complete text descriptor that describes the nature of the link. For example, never use "click here" as a link, or next to a graphic used as a link. Instead, use "click here for" and provide a description about where the link leads.

Guideline 3: Ensure that information is not conveyed through color alone. Provide simple backgrounds with enough contrast between colors. For example, when asking for input from users, avoid using "Please select an item from those listed in green."

Justification: People with low vision or colorblindness, or those using black and white monitors, can have difficulty reading information at sites with busy backgrounds and dark colors. Many background images and colors obscure the text, making reading difficult.

Solution: Recommend testing document without color being viewed, examine it with a monochrome monitor or with browser colors turned off. To test whether the color contrast is sufficient to be read by people with color deficiencies or by those with low-resolution monitors, print pages on a black and white printer (with backgrounds and colors appearing in grayscale).

Guideline 4: When using Image Maps, use client-side image maps and provide an alternative method of selecting the embedded links.

Justification: If the person viewing the page is using text-to-speech software, a non-graphic browser or has the graphics turned off in their browser, image map links will be inaccessible with no way of selecting the embedded links.

Solution: Provide a text-only link before or after the image map or list the embedded links elsewhere on the page, and provide "ALT" attributes within the image map.

Guideline 5: Provide alternatives to the use of non-standard text formatting and layout.

Justification: Tables with tabular or columnar information, indentations, or changing font size and presentation are very difficult for those using a non-graphic browser to navigate. Screen readers process text from left to right across the screen, and cannot effectively present tabular or columnar text.
Solution: Provide a text-only version of the page or information contained in tables. For text version, use proportional font markups (H1, H2, etc.) for text size changes.

Guideline 6: Provide alternative text-only pages when using moving or changing text (marquees and blink tags) for graphics or copied materials which cannot be read by a text reader.

Justification: Screen readers cannot process moving or changing text. Marquees are often read one letter at a time, making comprehension of the material very difficult. Moving or changing text often causes the screen reader software to lock up the computer.

Java and its derivatives and other unreadable components present unique access problems for individuals with disabilities. Typically, when encountered by a screen reader, the computer locks up, or the voice output ceases to function.

Solution: It is recommended not to use these features on main page. Provide links to an alternative text-only page and a graphics intensive page, so users can choose. Providing a text-only link on the main page that uses these features will not work; the computer may lock up before the user has a chance to choose the text-only option.

Guideline 7: Only use non-HTML formats as alternatives or enhancements to HTML files, not as replacements.

Justification: A wide variety of alternative formats are strictly graphic in nature and therefore completely inaccessible to users in text mode or who do not have the proprietary software needed to view the files.

Solution: Provide a text file equivalent for the specialized format file either in an HTML or text format.

Guideline 8: Avoid the use of proprietary HTML markup language.

Justification: A wide variety of browser-specific HTML tags are available. All of these present unique problems when designing fully accessible Web pages. Many of these tags cannot be read by accessibility software.

Solution: It is recommended not to use proprietary tags. Provide the user with an alternative presentation of the Web document, such as a text-only link.

Guideline 9: Test your pages in a variety of browsers, and on different operating systems.

Justification: Each type of browser handles HTML in different ways. To ensure that your pages are fully accessible across browsers and across platforms, they need to be tested for functionality.
Solution: Use the accessibility test below with multiple web browsers. Texas State University uses SortSite to reconcile websites.

How to check if your website is accessible

Web pages need to be validated in order to ensure they meet the minimum requirements for accessibility. There are three major validation processes available and typically used in this order:

- Design with WCAG 2.0 AAA guidelines.
- Evaluate the website with an electronic tool. Texas State uses SortSite Professional. University staff members in IT who teach the use of GATO, have access to this program to help you evaluate your work. In addition, screen readers commonly used by the disabled may be run against a website to find shortfalls.
- Have individuals with disabilities use the web site and comment on its effectiveness.

If you have questions or need assistance with bringing a website into compliance, please contact the ITAC staff at 512.245.ITAC or Electronic Information Resources Accessibility Coordinator at Texas State University.