Basic Concepts for Implementing an Accessible Environment in a University

Understand the Web

The web is a delivery system for electronic services together with the services that are delivered. The dominant services provided by universities are online transactions and dissemination of institutional information. Common transactions are ecommerce activities like payment of fees and online registration. Institutional information examples include publicity, marketing, program description, announcements of activities, employment opportunities and deadlines, calendars and schedules, policy, and instructional content. The delivery system, as well as the services delivered, must be accessible in a healthy web environment.

Study web accessibility at a level appropriate to your professional responsibilities

Anyone who delivers a service via the Web is accountable for the accessibility of that service. Since most services are provided by many people acting in many roles, the professional responsibilities will change from role to role. Supervisors must ensure sound practice is followed in providing services. Web developers will be responsible for implementing a delivery infrastructure that provides accessible use of the services. People who develop the actual content of the services must employ a workflow that ensures these services can be presented using accessible technologies. Procurement officers must know how to choose accessible products and know how to validate the accessibility claims of vendors. Regardless of role, everyone involved in providing services on the web must learn accessibility and apply it to their own role.

Learn the standards and law: W3C Accessibility Guidelines and relevant law of your country and state:

Everyone involved with providing service on the web needs to understand the standards and law. Supervisors manage the accountability environment to ensure standards and laws are being met. Web developers must understand how specific techniques addressed by standards and law can erect or remove barriers to access. Content developers must learn to author content that avoids the access barriers identified by the standards and law. Procurement officers must know specifically how to verify that purchases of web technology will expose the university to legal action. All these activities require knowledge of standards and law.

The preeminent accessibility standards are the Web Content Accessibility Guidelines (WCAG), the Authoring Tools Accessibility Guidelines (ATAG) and the User Agent

Accessorily Guidelines (UAAG). These are developed by the World Wide Web Consortium (W3C), Web Accessibility Initiative (WAI).

At the California State University the effective laws are: the Americans with Disabilities Act Title II, the Anti discrimination Section 504 or the Federal Rehabilitation Act of 1973, the Federal Telecommunications Act Section 255 and California Code 11135 that binds the California State Universities to the Electronic and Information Technology Section 508 of the Federal Rehabilitation Act.

Note: The W3C Standards are international. The effective law will vary with country, province and institution type.

Directly experience the meaning of the principles: perceivable, operable, understandable, and robust.

Literally survey your own website. There are many programs that simulate conditions like partial sight and color blindness. Try some of them. Also, use at least one assistive technology like Home Page Reader or JAWS.

Here are some quick and easy things to try.

Perception: Pick a PDF document that you need to read. Load the document in Acrobat or the Acrobat Reader and reduce size (using zoom) to 25%. Read ten pages.

Operability: A quick operability check is to run your browser at about 1/4 the normal screen size. That is, do not run it maximized but reduce the window size to 1/4 of your monitor size. Pick a large font. **Note:** make it reasonably large, but not crazy large. Then just do your normal activities for about one half hour. You should have no difficulty actually seeing the material, but you will have a hard time navigating the document. Multi column documents will require horizontal scrolling. Try to read the website for your local newspaper. Read at least one full article. Look at a site with big data tables or maps. Another operability check is to try and order something on line without using the mouse. That is, just use the keyboard. Purchase an airline ticket, a book or make a reservation.

Understandability: To check your institutional website try the following: Look at pages outside of your home unit. Can you follow their jargon? Can you find people, places and things? Do you have a good idea of where you are located within the website at any given time within your Web? If you reduce your browser to 1/4 screen size is the site still easy to follow. Is it still understandable if you try to read it using Home Page Reader or JAWS.

Robustness: The best way to experience issues of robustness is to use Home Page Reader or JAWS with the screen turned off or view your site on a web enabled cell phone. Another nice test is to go home and try connecting using just a phone hook up.

When developing new applications, follow best design and development practices

Employ user centered design. Use well tested design tools like personas, key path scenarios, story boards, and design frameworks.

Use best practice techniques from software engineering. A web is a significant software enterprise and it requires the same production steps as other large software projects.

When coding use the most current Technical Standards. Follow the letter and spirit of accessibility standards and law.

Design and develop with accessibility in mind. Never treat accessibility as a separate task that can be addressed after other issues have been satisfied.

Avoid retrofitting by developing or purchasing web applications that use best practice

Retrofitting is the most expensive development activity. Using inaccessible technology places the University at risk from litigation. So the cost of retrofitting must always be considered when developing or purchasing inaccessible web materials. Avoiding a retrofit is usually cheaper.

Retrofit to the law

Not everything can be rebuilt or repurchased new. Since retrofitting is extremely difficult and costly, best practice is an impractical goal. The institution should simply obey the law.

Aim to create and procure aesthetically stunning and usable web applications for all users

There is no real conflict between beauty, usability and accessibility for users with disabilities. A web sight should be pleasing and usable. It is a good idea to imagine the aesthetic appeal of a site in several modalities.

Involve users in design and testing of web applications and include test subjects with a range of disabilities

Every web project must employ user consultation. That includes new development and retrofitting. A failure to include users will probably lead to a failure of users to accept your site. To ensure accessibility always include subjects with disabilities.

Assume your site will be used by people with disabilities

Even if your medium is visual art, blind people will probably need to use your site at some time. In a large institution, access by people with disabilities is much more probable than not. So, just be prepared.