An essential part of web design today is designing for individuals with disabilities. Many government and educational institutions now require that all web pages follow accessibility guidelines established by the World Wide Web Consortium (http://www.w3.org/WAI/wcag-curric) and specified in Section 508 of the Federal Rehabilitation Act (http://www.section508.gov). As more and more facets of our lives become tied to Internet technologies, it is important that those involved with the placement of information on the Internet consider the obstacles faced online by individuals with disabilities and design with those obstacles in mind.

This article outlines a process-based approach to accessibility policy implementation. This process consists of several steps ranging from identification of applicable standards to final implementation. Identification and adoption of accessibility standards involves determining which standards apply to a given organization and adopting those standards, organization-wide. Validation is the evaluation of the site in terms of the standards adopted. Establishing an approach involves selecting the tools and techniques necessary given the needs and experience in the organization. Implementation is the final step integrating standards, tools and training.

Accessibility: A Broad View

An essential component to any accessibility plan is an understanding of the issues relevant to individuals with disabilities, the benefits of accessible design and the importance of accessibility. This section is intended to provide a brief overview of the
challenges faced by individuals with disabilities using the Web and designers striving to create more accessible pages.

The definition of accessibility used in this article has three parts: access to electronic information; the nature and scope of disabilities that affect individuals accessing web content; and a brief description of the assistive technologies used by individuals with disabilities.

Accessibility simultaneously describes two processes: first, the ability of the user to access information electronically; and second, the efforts made by the designer to enable a page to function with the assistive devices used by individuals with disabilities.

For the user, the challenge of accessibility is to identify the tools that will provide the most convenient access to web-based and other electronic information. For the designer, the challenge of accessibility is to remove the obstacles that prevent these tools from functioning properly. In many cases, these challenges are relatively simple to overcome; others require a bit more thought and effort.

Disabilities are broad and difficult to categorize. However, it is important to provide some sense of the scope of the issue. A 1997 report by the U.S. Census Bureau (http://www.census.gov/hhes/www/disable/sipp/disab97/ds97t1.html) categorized 19.6% of the U.S. population as having some sort of disability. Within that group are individuals with visual impairments, hearing impairments, cognitive impairments and motor impairments. Each category describes a much wider range of conditions. For example, vision impairments include limited vision, color blindness, and blindness. These categories may also describe temporary disabilities. For example someone with a broken wrist may have difficulty using a mouse, but still needs access to the Web to meet the day-to-day requirements of their job. At the same time, statistics about individuals with disabilities may be misleading. As we get older, most of us will face a disability of some kind. While on the whole, nearly 20% of the U.S. population has a disability, these numbers get higher as the population ages (see Table 1). For example, almost 75% of the population over 80 years old has a disability. Thus, accessibility is about more than just opening doors, it is also about keeping them open. Accessibility allows us to maintain a level of independence that age and disability would likely otherwise make difficult.
Table One

Users with disabilities frequently rely on hardware and software to successfully interact with web content. These tools, otherwise known as assistive technologies, range from screen readers to touch screens and head pointers.

Blind users of the Web frequently use software called a screen reader to read the contents of a web page out loud. Screen readers allow users to hear the contents of a web page rather than read them. However, a screen reader can only read text, not images or animations. Thus, it is important that images and animations have text descriptions associated with them for a screen reader to use. This text is called alternative text, or “alt” text. Two common screen readers are JAWS from Freedom Scientific and Home Page Reader from IBM.

Touch screens and head pointers replace the functionality of a mouse for users with mobility issues. These tools allow users with little or no use of their hands to interact with the computer. A user operates a stick or other implement to activate links, complete forms or write e-mail on the keyboard or touch screen. In these cases, it is very important that essential components of the page work without a mouse. Rollovers, dropdown menus and interactive simulations are all examples of elements that are typically dependent on the mouse for user interaction. Testing a page for use without a mouse is quite simple. In Internet Explorer, pressing the Tab key moves the focus of the browser between links on the page. Pressing the Enter key activates links much like clicking a mouse. Testing a page with these two keystrokes provides a quick and easy test of a page’s reliance on a mouse.
Accessibility Standards

Accessibility standards help web designers identify and address these issues. The World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG: http://www.w3.org/TR/WCAG10) were the first major effort to establish guidelines for design. This standard consists of 14 guidelines, each with three levels of checkpoints. Priority One checkpoints are those that the web developer must satisfy to insure that the page itself is accessible. Priority Two checkpoints are those that the web developer should satisfy to ensure that certain groups will be able to access information on the web page. Priority Three checkpoints are those the web developer may do to ensure that all content on the page is completely accessible.

National standards to emerge later include Section 508 of the Federal Rehabilitation Act in the U.S., Common Look and Feel in Canada and Guidelines for UK Government Websites in the United Kingdom (http://www.nics.gov.uk/bds/isservices/wads/pubs). The U.S. standard is based on Priority One Checkpoints from the WCAG. The Canadian and UK standards are based on Priorities One and Two from the WCAG.

The Importance of Accessibility

Accessibility is an immensely important effort for a number of reasons. First, accessibility is the right thing to do. It serves to open doors for individuals with disabilities in ways that were not previously possible. Second, it is the law in many institutions. Third, accessibility offers benefits for all users by creating more usable web sites. Fourth, accessible design is based on more contemporary architecture and design that allow for greater flexibility across a site. Fifth and finally, accessibility represents a growing market in need of software, hardware and design.

Accessibility is the right thing to do

Accessibility represents an important step toward independence for individuals with disabilities. Accessible web pages provide access to fundamental government services and information such as tax forms, social programs and legislative representatives.
Accessible web pages provide access to a broader range of employment and educational opportunities by providing individuals with other means of communicating via distance or face-to-face. Accessible web pages allow users with disabilities to participate in day-to-day activities many of us take for granted, such as reading a newspaper or buying a gift for a loved one.

*Legal and policy mandates*

With new federal requirements in the U.S, Canada, the European Union and more to come in the near future, there are numerous legal mandates for accessibility. Over time, these policies are sure to expand in scope. In the United States, for example, Section 508 of the Federal Rehabilitation Act sets standards for web pages designed or maintained by federal agencies (http://www.section508.gov). State and local governments, as well as educational and non-profit institutions around the country, are contemplating accessibility policies of their own. For example, in January of 2001, the University of Wisconsin-Madison adopted an Accessibility Policy (Vanderheiden, 1990) that requires all pages published or hosted by the University conform to all Priority One and Two checkpoints of the WCAG.

*Accessibility benefits all*

As with many improvements intended for individuals with disabilities, the enhancements of accessible design offer benefits for all users of the Web. Anyone who has pushed a shopping cart out of a grocery store can attest to the value of automatic doors and ramps cut into curbs. Similarly, accessible Web design creates pages that are often easier to read, more readable, easier to navigate and faster to download. This allows for a larger participating audience of more people in more situations.

*Innovative technology*

Accessible design is based on the premise that pages must work with browsers other than Netscape Navigator or Internet Explorer. A page must be accessible whether using a screen reader, refreshable Braille display or a head pointer. At the same time, this
often makes the same pages available to other consumer Internet devices such as WAP-enabled phones or hand held PDAs.

The techniques of accessibility are based on more contemporary technologies and design strategies. Older, static HTML designs often intermix the content on pages with the formatting. Accessibility guidelines encourage formatting to be separated from content using Cascading Style Sheets (CSS). This allows more flexible uses of content and easier implementation of more powerful dynamic models.

Identification and Adoption

The identification and adoption phase is a first step in the larger process of implementing an accessibility policy. In this phase, the process includes determining what standards and guidelines govern the organization, developing local and subjective standards, and identifying individuals to coordinate compliance efforts within the organization.

To begin this process, one should identify the standard that will need to be met. In some cases this standard may be legislative, and in other cases the standard may be developed locally in advance of any legislative or organizational mandate.

Federal Standards - Section 508

The regulations referred to as Section 508 are actually an amendment to the Workforce Rehabilitation Act of 1973. Section 508 requires that electronic and information technology that is developed or purchased by the federal government is accessible by people with disabilities.

All federal agencies are required to comply with Section 508. Of course there are exceptions to these standards. Exemptions may include small purchases of less than $3,000, national security systems, and situations where conformance to the law would impose an ‘undue burden.’ It should be noted that it is typically very difficult to qualify for one of these exemptions.

Section 508 does not directly apply to the private sector. While many institutions have adopted the standard outlined in Section 508 as part of their accessibility policy, they
are not required to do so under the current law. However, there is widespread expectation that similar laws may be passed in the future regarding the publication of web sites in organizations that receive federal funds. Predicting future legislation is a tricky endeavor at best, though it seems inevitable that accessibility will reach the public sector at some point in the future.

State, Local, and Organizational Standards

Increasingly, states, localities, and educational institutions are developing their own accessibility standards. The University of Wisconsin system, for example, recently implemented a policy based on Priority One guidelines from the WAI. Other institutions often adopt standards are based on Section 508. This allows them to take advantage of the numerous training and support resources developed by the U.S. government and its vendors.

Other Standards

The W3C WAI is the basis for web accessibility standards for governmental agencies in the UK and Canada. These standards incorporate all Priority One and Priority Two checkpoints from the WCAG. While these standard raise the bar in terms of design and support, they allow sites to take advantage of the benefits of CSS and the separation of presentation from structure within the HTML code. If knowledge within the organization is available supporting the addition of standards for CSS, XHTML or even XML, additional standards regarding the formatting of text may want to be considered. Even if immediate use is not made of dynamic architecture, a site incorporating Priority Two checkpoints from the WCAG will have greater flexibility in adopting these models in the future.

Adopt Local Standards

After determining which if any federal, state or organizational standards apply, local standards should be developed. These are particularly helpful in contexts where standards are more subjective. For example, there is no formal accessibility policy in
Australia as of this writing. However, there are court rulings in areas of accessibility that mandate the government not to discriminate on the basis of disability. In this instance, it would be advisable to set a local standard for web design. This provides some measure of accountability on the part of an agency that efforts were made to comply with the court’s order. At the same time, it provides a concrete target for designers to incorporate into their work.

Identify a local person

It is important to identify a person within an organization to coordinate accessibility efforts. This person is responsible for communicating standards to web developers, connecting developers to resources for learning standards and standardizing local techniques and interpretations of standards. In addition, this person should work to maintain the organization’s focus on the issue of accessibility as the initial enthusiasm as momentum begins to fade.

Validation

Once an accessibility standard has been identified and adopted, a measure needs to be made of the site against the identified standard. Using automated and application-based tools, a site should be carefully checked against the adopted standard. This will provide a sense of the issues to be addressed in the implementation process.

Perhaps the easiest way to begin the process of validation is to use one of the numerous free online validation tools. In most circumstances, these tools will provide a quick, if cursory, glance at the accessibility issues on a page. The oldest and perhaps most famous of these tools is Bobby.

Bobby

To use Bobby (http://www.cast.org/bobby), the URL of the page to be checked is entered in the form on the Bobby page. Bobby returns the page with a report of obvious issues on the page. Forgotten alt text, missing frame titles, or absent CSS are easy to catch using a tool like Bobby. If there is a disadvantage to Bobby, it is that it does not look at
more complex and subjective problems such as tables used for data or the type of alt text used. However, Bobby was not intended to analyze these complex issues. Bobby’s strength is in its ease and simplicity.

*LIFT Online*

A much more powerful online tool available from UsableNet is called LIFT Online (http://www.usablenet.com/lift_online/index.htm). LIFT Online is a fee-based service that provides a much more comprehensive evaluation of pages. While evaluations of five pages are free of charge, LIFT offers the ability to evaluate an entire site all at once. This is particularly helpful when attempting to get an overall sense of the issues facing an entire site.

The tools provided within LIFT are significantly more powerful. LIFT is able to detect when specific alt tags are called for, as with spacer images. LIFT is able to detect when a table is used for data and evaluate the markup. LIFT is also able to evaluate a page using more general usability rules. These rules are not based on issues specifically for individuals with disabilities, but common issues across all segments of web users.

*HTML and CSS Validator*

HTML Validator (http://validator.w3.org) and CSS Validator (http://jigsaw.w3.org/css-validator) are particularly helpful for advanced users. These free tools do not check for accessibility issues, rather they check for the proper use of HTML and CSS. This is particularly helpful for users who may understand coding in HTML and CSS, but not be familiar with the techniques of accessibility. The HTML and CSS validators can identify incorrect coding and point to a solution. For advanced users, these tools are an important part of any validation process.

*Application based tools*

Application-based tools generally offer more comprehensive tools for validation. An excellent example is the 508 Accessibility Suite for Macromedia Dreamweaver (http://www.macromedia.com/exchange/dreamweaver). This free extension from
UsableNet offers the ability to check individual pages or even an entire site against a customizable set of accessibility guidelines. The extension offers a comprehensive set of tests similar to those available from LIFT online. In addition, the extension also takes advantage of Dreamweaver’s authoring environment to point the designer to specific places on the page in need of repair.

**Checking Dynamic Pages**

A common question that arises during the process of validation and repair relates to the validation of dynamic pages. Testing a dynamic page is quite similar to testing a static page. The primary difference is that one does not test the page itself, but the output of that page. In most cases, making the necessary adjustments is comparable to making changes in HTML.

Dynamic design techniques related to accessibility are more complex. However, these techniques are more often intended to improve the process of accessible design rather than directly affecting the user’s experience of a page. This is still an emerging but very promising area of accessible design.

**Establish an Approach**

The next step in implementing accessibility policy is establishing an approach to accessible design with respect to both architecture and techniques. The goal is to standardize site structure and page creation in a way that streamlines workflow and limits common mistakes made by designers. Establishing standards for site architecture and design techniques provides designers a common starting point for their designs as well as a common language to discuss the issues involved.

As an approach is being developed, two groups need to be considered: novice designers and advanced designers. For novices, it is important that the approach make accessibility easy to achieve. Providing designers with templates, library objects and other shortcuts for creating accessible pages are just a few of the strategies that may be used here. For advanced designers, the selected approach should take advantage of their skill
set, but streamline the process of accessible design. Using CSS, XHTML and data-driven models, advanced designers may offer a rich and more customizable feature set to users.

**Architecture**

There are multiple site architectures appropriate for helping to foster accessible design. It is crucial that the architecture implemented reflects the capabilities of the organization. The staff’s level of expertise, the availability of hardware and software and the availability of staff for maintenance will all be fundamental variables in this decision.

The following three models of site design are offered as examples. These examples represent points on a continuum of site architecture from completely dynamic models to completely static sites. As organizational expertise and experience with accessibility and data driven design grows, each organization will find the model that best fits its needs.

*Data-driven Model*

Data-driven sites are those in which the contents of the site are stored in a database. Web pages are then generated from the contents of the database. A data-driven model allows the process of accessible design to be streamlined in two ways. First, a designer may enter content into the database using a form on a web page. This allows an individual within the organization to add content to the database without learning HTML or an authoring tool. This is an ideal solution when there are numerous designers with little or no experience designing web pages.

Second, a data driven model automates the process of page creation and allows the users to select the format of the content that best serves their needs. Thus, the same page can be delivered dynamically in a text-only format, full-graphics HTML version or in a rich media format like Macromedia Flash. The problem with multiple site versions in static HTML is that typically only one version is actively maintained and others are not maintained as well. If the multiple versions in a static site are actively maintained, it usually results in much more work for the webmaster or page designers. In dynamic sites, all versions are dynamically updated to reflect latest content.
A data-driven model should only be selected if an organization has the hardware and software infrastructure to support it. This infrastructure would include a server running ColdFusion, PHP or other dynamic server applications. In addition, sufficient expertise must exist within the organization to adequately maintain the server, as well as to develop dynamic pages. If this expertise does not exist, then training should be arranged for the webmaster and designers alike.

It is particularly important for the webmaster to not only be able to maintain the web server, but also to support designers until a sufficient level of expertise is developed within the organization.

**Static Model**

A static model is appropriate when infrastructure or expertise within the organization cannot support a data-driven model. Instead, the site consists of a set of static, unchanging HTML pages. In these situations, it is helpful to use templates and server-side includes or application-specific tools and library objects features in Dreamweaver to streamline the process of accessible design.

Utilizing templates involves creating a set of templates that account for common types of pages within the site and incorporate accessibility features. Novice designers are then able to create consistent and accessible pages.

In these situations, it is particularly important to provide accessibility training for the front-end designers who will develop the templates to limit potential across the site.

The advantage to using templates as opposed to static pages is that a webmaster may adjust a problem across an entire site by fixing only the template itself. At the same time, templates limit the areas of a page that the designer may edit, thus standardizing site design.

Library objects allow frequently used elements within a site to be developed with a full range of accessibility features and then be placed on a page by dragging and dropping particular elements into a page. For example, a navigation bar used in several templates and individual pages may be marked up with all of the alt text and a skip to content mechanism and then quickly and easily used on a page.
A designer can expend a lot of effort marking up a navigation bar for each page the navigation bar appears. If this navigation bar is developed as a library object, it can be reused without duplicating these efforts each time it is used.

**Combined Model**

In circumstances where knowledge or experience with dynamic design is limited but the hardware and software are available, an approach combining data driven and static elements may be appropriate. In these circumstances, it is wise to start with a single instance of dynamic design. A single page that needs to be frequently updated by a novice or inexperienced designer would serve as a prime candidate. As organizational expertise with data driven models grows, so would the site’s reliance on dynamic pages. Additionally, the sophistication and maturity of the dynamic techniques used in a site may grow as well. Ongoing training for both the webmaster and designer are essential to the success of these models.

**Tool & Techniques**

In addition to standardizing architecture, it is also important to standardize techniques. This provides designers consistency in their approach to common issues. The following list comprises a list of common issues benefiting from standardization. This list is not exhaustive, but should serve as a valuable starting point in this process.

**Tools**

As part of implementing an accessibility policy, it is essential to ensure that designers and developers have the appropriate tools to implement the policy. In addition, these tools should support novice designers in creating accessible pages. At the same time, these tools must support the more sophisticated techniques of advanced users.

Another important reason for standardizing tools across an organization is that it simplifies training related to accessibility. Training on accessibility should connect an issue with the related technique, and a set of step-by-step instructions employing this technique. Using a single application across an organization limits the number of explanations necessary allowing the materials to cover a greater number of issues rather
than a greater number of applications. Time is a limited resource and is particularly valuable when it comes to accessibility given the range of issues and techniques that merit attention.

Techniques

In addition to standardizing tools, it also wise to standardize techniques across an organization. This provides designers with a concrete and consistent approach to some of the more subjective accessibility issues. The following is not intended to be an exhaustive list, but to provide a starting point for an organizational approach to accessibility.

Navigation

Navigation poses a number of issues related to accessibility. Two issues, in particular, require a consistent approach. The first issue is related to the use of a skip navigation mechanism. Section 508 states, “A method shall be provided that permits users to skip repetitive navigation links.” This mechanism prevents screen reader users from having to listen to every link in the navigation bar before the main content of each page. Typically, this is accomplished by linking a small, transparent image at the top of a page to an anchor just before the main content. The Alt tag for this image should read “skip to content” or “skip navigation.” Designers who do not rely on screen readers often have little experience with these mechanisms. Thus, it is helpful to provide a clear strategy for implementation.

A second issue with navigation relates to the use of JavaScript rollovers. Rollovers that bring up drop-down menus or disjointed images elsewhere on the page pose particular challenges for accessibility. While some screen readers are now able to read JavaScript, the majority still cannot. Thus the links and content from a JavaScript rollover are unavailable to screen reader users. Pull down menus are still possible but would require use of CSS layers with JavaScript rather than JavaScript alone. These techniques are complex and require significant planning. In addition, these tools may benefit from use of multiple skip navigation mechanisms. Standardizing the use of JavaScript rollovers in navigation significantly simplifies their implementation and may enhance accessibility.
Images

Images require special consideration when it comes to accessibility. First, it is helpful to standardize and centrally store alt tags for commonly used images across the site. Using library objects in Dreamweaver, images can be associated with the appropriate alt text in advance. A user may then place an image on a page with proper alt text already in place.

Second, images requiring alt text of longer than 50 characters should use a long description. There are multiple strategies for adding long description to images. The first is based on the use of the LONGDESC attribute. The LONGDESC attribute provides a screen reader user with a link to the long description on a separate page. However, support for the LONGDESC attribute is very limited at this time. A second method for adding long descriptions relies on the use of what is called the d-link. The d-link places a letter d (for description) next to the image. See example below:

![d](image)

The letter d is linked to a separate page with a longer description of the image.

A third method of providing long descriptions is similar to the d-link. This method places a caption next to the image and links the caption to the descriptive page. Standardizing the use of long descriptions is helpful since the use of long descriptions is one of the most common questions related to the techniques of accessibility.

Cascading Style Sheets (CSS)

The use of CSS offers significant benefits for accessibility. While CSS are not mandated by section 508, national standards in the UK and Canada do require the use of CSS.

Formatting text using CSS allows the user to override styles to format text, itself. This allows a user with limited vision or colorblindness to format the text in a way that meets their needs. However, the use of HTML for formatting text overrides all CSS styles,
including user-defined styles. Thus, it is important to standardize the use of CSS in HTML for formatting text across a site.

Use of Plug-ins

Each plug-in requires its own distinct strategy for accessibility. Under Section 508, the use of plug-ins is required to comply with standards for software. Similar to standards for web content, the software standards also require that the plug-in can function without a mouse.

Flash-based content poses two issues related to accessibility. First, a text equivalent for Flash animation needs to be provided since there is no alt attribute for the object element used to place Flash on a page. Because of this, the alt text needs to be placed elsewhere. A second issue related to Flash is that of device-independence. The movie must support keyboard-based as well as mouse-based interaction. In many cases, this will require some guidance for novice developers of Flash content.

Use of video and audio require a synchronized text alternative typically in the form of closed-captioning. Video in QuickTime, Real and Windows Media formats need to be appropriately captioned. If multimedia is frequently used across a site, the organization should ensure hardware and software tools are available to support closed-captioning.

Design Support Mechanisms

Even the best and most thorough accessibility plan may not be able to accommodate all users. As a final measure, it is advisable to add an e-mail link to an individual so that users with disabilities who are having difficulty accessing resources may directly request the information they need. This resource should be prepared for questions from users with disabilities and be able to direct these individuals to resources within the organization.

Implementation

The keys to success in a successful accessibility policy are tools and training. Accessibility must be seen as an integral aspect of the design process, not an add-on or
separate activity. The tools and training for novice and advanced users alike should reflect this. The tools should directly integrate accessibility into page construction and architecture. Training for designers and developers should integrate accessibility principles directly into explanation of the tools and design concepts used site-wide.

The more transparent accessibility is within the design process, the more likely the policy is to succeed.

Training for developers

Training for all designers should cover the general issues and challenges faced by users with disabilities. This may include discussion of assistive devices such as screen readers, individual disabilities and relevant accessibility policy. This will provide designers with a context in which to evaluate their designs.

Again, training should directly integrate the techniques of accessible design with training in use of the appropriate tools. This is particularly true for novice users. For advanced designers, training may not be available. Instead it may be valuable to seek out other opportunities to discuss advanced accessibility techniques. These opportunities take the form of face-to-face meetings, user groups, e-mail listservs, or bulletin board discussions. Providing the time and the expectation for these discussions is crucial if organizational knowledge of accessibility is to expand.

Staged Rollout

Another key to successful implementation of an accessibility policy is an incrementally staged rollout. Given the complexity of accessibility issues, it is wise to spread training and implementation out over a period of time. Six months to a year is generally an appropriate scope to think of when implementing an accessibility plan.

In that time frame, one strategy is to select a start date for an accessibility policy. From that point forward, new pages created within a limited area of the site should adhere to the standard. It is better to limit the scope of the pages rather than scope of the standard. The W3C standards are created in such a way to serve users with a wide range of disabilities. Choosing only some of the standards from the set of Priority One checkpoints
invariably risks isolated users with a specific disability. Instead, it is wise to narrow the number of pages affected. This allows training to be targeted to a specific group. The scope of the policy may be expanded from that point forward to include all areas of a site.

Perhaps the most difficult decision is when to include existing pages under accessibility guidelines. Retrofitting pages for accessibility is more challenging than designing from scratch, nonetheless policy should apply to the entire site.

**Conclusion**

Accessibility is an important and timely issue. Any organization with a web site, from government agencies, to educational institutions, to businesses of all kinds, should consider adopting an accessibility policy.

The approach offered here is multi-faceted and touches on all aspects of the web design process from identification of standards to the implementation of an organization’s site. It is important for organizational standards to be consistent and thorough, integrating training and resources for those involved with web design. Additionally, accessibility policy must take into account the needs of the organization and the varying levels of web design knowledge and experience within the organization.

There are no quick fixes for accessibility, but careful and thoughtful planning can minimize many of the challenges of accessible design.

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http://trace.wisc.edu/docs/30_some/30_some.htm

**Resources**

W3C Web Content Accessibility Guidelines Curriculum
http://www.w3.org/WAI/wcag-curric/

Adaptive Computer Technology Training Centre (Canada)
http://www.ec.gc.ca/act/
Introduction to Web Accessibility
http://www.webaim.org/info/intro

About Section 508
http://www.section508.gov/index.cfm?FuseAction=Content&ID=3

Exceptions to Section 508
http://www.section508.gov/index.cfm?FuseAction=Content&ID=92

Bobby
http://www.cast.org/bobby

LIFT Online
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HTML Validator
http://validator.w3.org/

CSS Validator
http://jigsaw.w3.org/css-validator/

508 Accessibility Suite Extension for Dreamweaver
http://www.macromedia.com/exchange/dreamweaver/