

Boston CSS Meetup Web Accessibility Presentation

The Carroll Center for the Blind

What is Accessibility?

Accessibility is a term used to describe the degree to which a product, device, service, or environment is available to as many people as possible.

- Accessibility can be viewed as the ability to enter and benefit from some system or entity.
- Accessibility is often used in reference to people with disabilities or special needs and their right of entrance to entities, often through the use of assistive technology.

Accessibility Versus Usability

- **Usability:** the ability of end users to efficiently and successfully complete their intended tasks achieving an overall positive experience. Usability issues are speedbumps that don't prevent an end user from completing a task, but create a more frustrating experience.
 - Is the site navigation logical and easy to use?
 - Is the layout awkward or confusing?
 - Does the task require a higher than average skill level to figure it out?
 - Are less familiar screenreader or keyboard commands required to perform a task?



Web Accessibility

- Web accessibility refers to the inclusive practice of making websites usable by people of all abilities.
- When sites are designed, developed and edited well, all users can and should have equal access to information and functionality.

Benefits of Designing with Accessibility in Mind.

Everyone benefits from an accessible website.

- It can improve lives
- It can improve your corporate reputation
- It can improve SEO
- It can increase revenue
- It can help you avoid legal action

Above all, it's simply the right thing to do.

Factors that Impact Successful Web Access

- How the Website was developed
- The operating system
- The type and version of AT being used
- The web browser being used
- User skill level

Features of an Accessible Website

Accessible web sites have:

- Text equivalents for images
- Links that make sense out of context
- Text that is high contrast and large or can be made larger
- Clickable items that indicate focus and have a large click area
- Keyboard or switch device functionality
- Closed captioned and audio described videos
- Content that is written in plain English and augmented with instructional diagrams



WCAG 2.0 and Section 508: The Cornerstones of Web Accessibility

Web Content Accessibility Guidelines or WCAG 2.0: The Four Principles of Web Accessibility

Section 508 of the Rehabilitation Act: Web-based intranet and internet information and applications.

Four Principles of Web Accessibility

Perceivable

- Provide text alternatives for non-text content.
- Provide captions and other alternatives for multimedia.
- Create content that can be presented in different ways without losing meaning.
- Make it easier for users to see and hear content.

Operable

- Make all functionality keyboard accessible.
- Give users enough time to read and use content.

Section 508

The U.S. Access Board (The Architectural, and Transportation Barriers Compliance Board), is an independent federal agency that promotes equality for people with disabilities through the development of accessibility guidelines and standards.

Section 508 was enacted in 1998 as an amendment to the 1973 Rehabilitation Act to eliminate barriers in information technology, make available new opportunities for people with disabilities, and encourage development of technologies that will help achieve these goals.

The Section 508 Refresh



Disabilities and the Web

Not all disabilities limit a person's access to the Internet.

Disabilities that Impact Web Usage

The four main disability classifications that can interfere with an individual's ability to navigate the web are visual, auditory, mobility, and cognitive.

- Visual
 - Blindness
 - Low Vision
 - Color Blindness
- Auditory
- Motor/Mobility
- Cognitive/Seizure Disorders

How does a person with a disability access the web?

Access/Assistive/Adaptive Technology (AT)

AT: A term that describes assistive, adaptive, and rehabilitative devices or software for people with disabilities that attempt to reduce the impact or remove the disability entirely.

Examples of Assistive Technology

Screen Reading Software

Synthesized speech software that reads what is displayed on a visual output device. Examples: JAWS and NVDA.

Braille Terminals or Refreshable Braille displays

Renders text as Braille characters (usually by means of raising pegs through holes in a flat surface).

Screen Magnification Software

Enlarges and modifies the color contrast of what is displayed on a computer monitor, making it easier to