

## Webinar: Accessible Web Design

What you need to know to make sure your website is accessible to all

### Program Description

“Web accessibility means that people with disabilities can use the Web.” So says the World Wide Web Consortium (W3C) – Web Accessibility Initiative, the group that publishes the “standards” known as the Web Content Accessibility Guideline (WCAG).

In this ninety-minute webinar, we will discuss the legal and practical aspects of Accessible Web Design, how to assess your own website, and where to turn to when things are not meeting the requirements.

Learning objectives:

- What are the laws/rules that pertain to web accessibility.
- How can I tell if my website is accessible to people with disabilities.
- Where do I go for assistance to make my website accessible.
- What resources are available.

This webinar is designed for anyone interested in web accessibility including site administrators and content creators. Knowledge of programming code is not required.

### Introduction

Who is John Brandt?

### Who are you?

- Industry professional – more than 5-years experience in web design/development
- Part-time web person – one of your jobs is to maintain the website
- An interested person – a user/consumer of web content
- Advocate – a person interested in web accessibility and the needs of people with disabilities
- Other

### Who are you – part 2?

- Code writer, developers, backend specialist – someone who focuses mostly on design and/or structure of web applications
- Content creator – someone who regularly creates content that is posted to the web
- In between – someone who does both of the above

### Learning Goals

- What are the laws/rules that pertain to web accessibility.
- How can I tell if my website is accessible to people with disabilities.
- Where do I go for assistance to make my website accessible.
- What resources are available.

### How people with disabilities use the web?

- Demo of screen reader: [www.youtube.com/watch?v=dEbI5jvLKGO](http://www.youtube.com/watch?v=dEbI5jvLKGO)
- Demo of switch user (Christopher): [www.youtube.com/watch?v=cSSgndQ5mVs](http://www.youtube.com/watch?v=cSSgndQ5mVs)

## What are the “standards”?

Just like any profession, web designers turn to “industry standards” to learn the “rules of road” when it comes to accessible design. As the “web” is world-wide, the standards institution is the World Wide Web Consortium – W3C, which is made up of people from around the world who are interested in the field. W3C members include both industry folks as well as users.

A subset group of the W3C is the Web Accessibility Initiative (WAI) and this group has developed the set of “industry standards” that seek to ensure that all web content is accessible to all. The current version of the standards are the Web Content Accessibility Guidelines, version 2.0 usually abbreviated as WCAG v 2.0.

## Difference between guidelines>standards>law

- The WCAG are “guidelines” which, in and of themselves have no legal standing. They are essentially recommendations of how to do something.
- Guidelines may become standards if they are adopted as such.
- A standard may become a local, regional or national law if adopted by a governing authority

## Guidelines vs local policy

- Guidelines may also be adopted as part of the local policy (e.g., a school, university, association, business).

## Local Conventions = Best Practice

- There are many techniques and “best practices” that have been developed that are not in the guidelines. I call these, “The Law According to John.”

## What is the law?

In the United States, there are two major laws that govern the topic of access for people with disabilities:

- **ADA – Americans With Disabilities Act of 1990** – from Wikipedia - “... a US labor law that prohibits unjustified discrimination based on disability. It affords similar protections against discrimination to Americans with disabilities as the Civil Rights Act of 1964, which made discrimination based on race, religion, sex, national origin, and other characteristics illegal. In addition, unlike the Civil Rights Act, the ADA also requires covered employers to provide reasonable accommodations to employees with disabilities, and imposes accessibility requirements on public accommodations.”
- **Section 504 of the Rehabilitation Act of 1973** - from Wikipedia – “... is American legislation that guarantees certain rights to disabled people. It was one of the first U.S. federal civil rights laws offering protection for people with disabilities. It set precedents for subsequent legislation for people with disabilities, including the Virginians with Disabilities Act in 1985 and the Americans with Disabilities Act in 1990.

There is also a section of the Rehabilitation Act that pertains to website accessibility:

- **Section 508 of the Rehabilitation Act of 1973** – from Wikipedia – an amendment “...to the Rehabilitation Act to require Federal agencies to make their electronic and information technology accessible to people with disabilities. Section 508 was enacted to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Under Section 508 (29 U.S.C. § 794d), agencies must give disabled employees and members of the public access to information that is comparable to the access available to others.
- **Section 508 Refresh of 2017** – Section 508 was recently updated and now references the WCAG v 2.0, AA Success Criteria as the guidelines for meeting the requirements.
- **Big difference** – between the old Section 508 and new is that WCAG is less about “dos and don’ts” and allows for multiple ways to achieve success criteria.

### Does this pertain to me?

- This is an interesting question. Maybe yes, maybe maybe.
- One should assume the answer is yes.
- The test will be: “Is your business/organization considered a ‘public accommodation’?”

“The public accommodations provision applies to any nonprofit group or private place of business that is open to the public for the sale or lease of goods or services. The ADA lists 12 general categories of public accommodation, which include:

- places of lodging;
- places serving food or drink;
- places of exhibition and/or entertainment;
- places of public gathering;
- sales or rental establishments;
- service establishments;
- stations used for specified public transportation;
- places of public display or collection;
- places of recreation;
- places of education;
- social service center establishments;
- and places of exercise or recreation.

Restaurants, doctor’s offices, day care centers, hotels, grocery stores, sporting facilities, movie theaters, and museums are all considered public accommodations. Title III includes all businesses, even small ones. **Private clubs and religious organizations are the only private entities explicitly exempted from the requirements of Title III.** [Source: <http://www.disabilityrightswi.org/wp-content/uploads/2008/09/ada-title-3.PDF>]

### What are some common issues?

- Structural Issues – the bones or skeleton of web design. Includes XML codes (HTML, PHP), Style codes (CSS), scripts (JavaScript, AJAX), and applications.

- Content Issues – The words, pages, documents, PDFs, attachments, pictures, videos, audio recordings, animations, tables, graphs, that are part of, or accessed through the internet.

### Structural, Design Issues for Web Accessibility

- HTML elements – General layout and topography of the website (Header, Footer, Navigation, Content areas).
- Plugins and extensions – picture carousel, video plugins, animations and scripts
- Presentational elements – styling, colors, fonts, layout, background images

### Solutions to Structural, Design Issues for Web Accessibility

- Use W3C HTML validated code - <https://validator.w3.org/>
- ARIA Code - Accessible Rich Internet Applications - a way to make Web content and Web applications more accessible to people with disabilities. It especially helps with dynamic content and advanced user interface controls developed with Ajax, HTML, JavaScript, and related technologies.
- Test – Use various assistive technologies (AT) to access your website content to determine if it works. Best to use real human testers who know how to use AT.

### Content Issues for Web Accessibility

- As you add content to the website, making sure all the content is accessible – Headings, Images, Tables and Presentational elements.

### Solutions to Content Issues for Web Accessibility

- Use the Guidelines
- Use automated accessibility validators tools (for website, office documents and PDFs) to screen content. For more information, see resources on Maine CITE’s Accessible Digital Documents - [mainecite.org/accessible-digital-documents/](http://mainecite.org/accessible-digital-documents/)
- Test – Use various assistive technologies (AT) to access your website content to determine if it works. Best to use real human testers who know how to use AT.
- Learn HIT-P

### HIT-P

- Headings
- Images
- Tables
- Presentation

### Headings (H)

- These are important for screen reader users because they are often used as a way to navigate around the document and “browse” the content.
- Use Style/Heading design feature as this inserts semantic “hooks” that help the user understand the document.
- Don’t just enlarge text as this provides no semantic assistance.

## Images (I)

- All Images need Alternative (ALT) Descriptions. These provide information and meaning to people using screen reader assistive technology (AT).
- What makes up a good ALT Description? I recommend using something pithy and to the point. Not too long, not too short.
- In HTML design the developer can use ALT="" – the **null tag** which causes the screen reader AT to simply skip over the image. This can be useful when the image is simply a “pretty picture” and provides no substantial meaning to the content of the document.

## Tables (T)

- Tables should only be used **ONLY** to present data (not for formatting or layout).
- Tables need “headings” – information at the top of the column or sometimes in the first column that identifies the data in the chart.
- Headings are essential for navigation and understanding for users of screen readers. In JAWS, the leading screen reader AT for Windows, there is a special “mode” for viewing tabled content that assists the user.
- If a large amount of data needs to be presented, it would be better to use a spreadsheet and provide that as an additional document.

## Presentation (P)

- **Background Images** - The use of background images should always be avoided particularly if there is text laid over the image
- **Text Boxes and Inserts** - Don't use “text boxes” or inserts that may mess up reading order. Avoid these at all costs.
- **Color Contrast** - Equally you should take care to ensure that your documents provide sufficient contrast between the text and the background.
- **Text Color** - The use of color text can often be problematic for persons with color blindness and should be avoided.
- **Links** – Use embedded links that are in content that provide a clear reference to the user. Example, “Here is a link to the Maine AIM Program website...” This is easier to read and provides additional information to the user as to where the link leads to. Never use “click here” or “read more.”

## Audio-Visual Content

- All **video content that has spoken human language** must be captioned in synch with the content. Can be closed captioned or open captioned.
  - Closed captioned – text is laid over the image and in a separate file.
  - Open captioned – text is embedded in the video content and cannot be adjusted.
- All **audio content that has spoken human language** must be accompanied with a transcript.
- **Audio description** is provided for all prerecorded video content in synchronized media [WCAG v 2.0 – 1.2.5]. This will be very difficult to achieve.

## How to assess a website for accessibility.

Fortunately, there are many tools that can be used to assess the accessibility of your content. Many are free or low-cost. Most will show you the error, explain why it is important and show you how to fix it. See the Resources section below for a list.

### WAVE Accessibility Tool from WebAIM

- Can be accessed by any web browser by at [wave.webaim.org](http://wave.webaim.org)
- Can be installed as a plugin for Chrome or Firefox browsers. <http://wave.webaim.org/extension/>

The WAVE Chrome and Firefox extensions allows you to evaluate web content for accessibility issues directly within Chrome and Firefox browsers. Because the extension runs entirely within your web browser, no information is sent to the WAVE server. This ensures 100% private and secure accessibility reporting. The extension can check intranet, password-protected, dynamically generated, or sensitive web pages. Also, because the WAVE extension evaluates the rendered version of your page, locally displayed styles and dynamically-generated content from scripts or AJAX can be evaluated.

### Demonstration

Screen share of WebAIM WAVE

### What are some things I can do today?

- Learn more about what local policies cover your organization.
- Learn more about this topic. Keep abreast with new technology and methods.
- Spread the word.
- Cultivate local expertise.
- Gather your tools and learn to use them.
- Seek advice and assistance.

### Where do I get help?

The following two sites have lots of links to global references on these topics. They are updated regularly.

- Maine CITE – Accessible Web Design - [mainecite.org/accessible-web-design/](http://mainecite.org/accessible-web-design/)
- Maine CITE – Accessible Digital Documents - [mainecite.org/accessible-digital-documents/](http://mainecite.org/accessible-digital-documents/)

### Resources

- WebAIM - [webaim.org/](http://webaim.org/)
- W3C – WAI - [www.w3.org/WAI/](http://www.w3.org/WAI/)
- Section 508 - [www.section508.gov/](http://www.section508.gov/)
- Legal: [Public Accommodations are Starting to Win Website Accessibility Lawsuits](#)
- Legal: [Lainey Feingold, Esq.](#)

Poll: Do you want more training in this area?

Thank you.