

Accessibility 101 and the new Section 508 Requirements

tm trademarkmedia

Agenda

- Why accessibility matters
- The new Section 508 requirements
- Accessibility best practices
- Useful testing tools

Accessibility Statistics

56.7 million Americans (18.7% of the U.S. population) have some type of disability (2010 Census)

19.2M

difficulty lifting
or grasping

15.2M

cognitive, mental, or
emotional impairment

8.1M

vision impairment

7.6M

hearing impairment



50% of adults

living with a disability use the internet daily

The aging population
is predicted to triple to

1.5 billion by 2050

Accessibility should accommodate for both user need and preference

- Physical disabilities: sight, hearing, mobility, color blindness
- Cognitive disabilities: dyslexia, memory, attention disorders
- Literacy and language: low literacy levels, English as a second language
- Screen Size: phones, tablets, watches, TVs
- SEO concerns: Can Google see your page?
- Tech limitations: Slow network, no hover on mobile

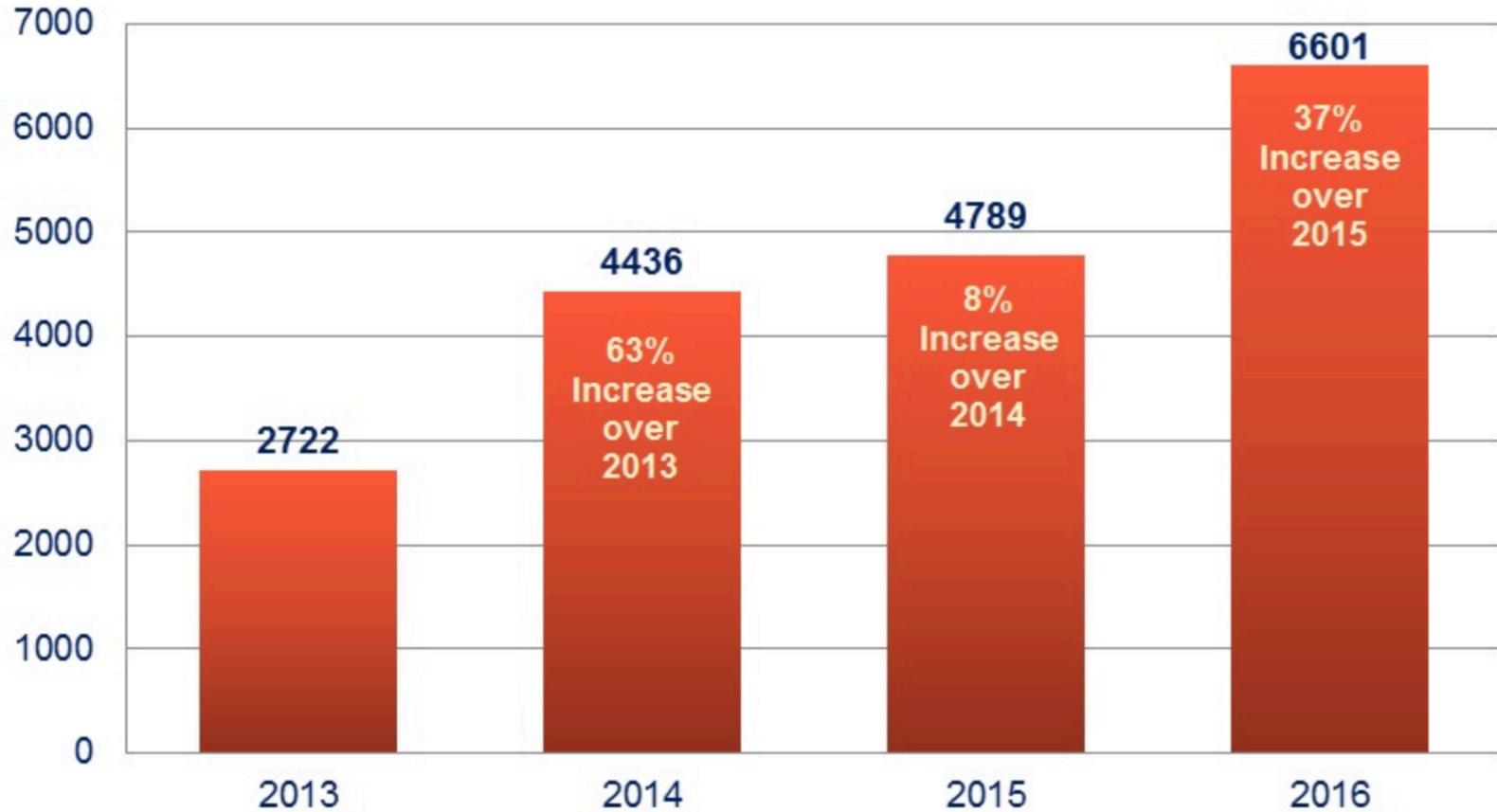
It's the law, y'all

- Section 508 of the Rehabilitation Act of 1973
- State Guidelines
- Title III of the ADA

6,601 businesses in the US

were sued over website accessibility
in federal court in 2016

ADA Title III Lawsuits in Federal Court: 2013 - 2016



Source: <http://www.adatitleiii.com/2017/01/ada-title-iii-lawsuits-increase-by-37-percent-in-2016/>

The New Section 508 Guidelines

- Compliance date is January 18, 2018
 - Safe Harbor provision for existing websites

WCAG AA Compliance

WCAG Principles of Accessibility

- Perceivable
 - Content and user interface components can be seen and heard
- Operable
 - Users can interact with the interface and navigation
- Understandable
 - Content and operation of the user interface can be understood
- Robust
 - Content can be interpreted reliably by a wide variety of user tools and should remain accessible as those tools evolve

Guidelines, Success Criteria, Techniques

- 12 guidelines that are descriptive in nature, but not easy to test for
- Under each guideline is a list of testable success criteria that get a label of A, AA, or AAA depending on the impact on users
- There are a number of recommended techniques (called sufficient and advisory techniques) that provide some suggested ways you can meet the success criteria.

Example: WCAG Guideline 2.4

- **Guideline 2.4 - Navigable:** Provide ways to help users navigate, find content, and determine where they are
- **Success Criteria 2.4.1 - Bypass Blocks:** A mechanism is available to bypass blocks of content that are repeated on multiple Web pages. (Level A)
- **Sufficient Technique - G1 -** Adding a link at the top of each page that goes directly to the main content area and skips the header and navigation

Helpful WCAG Links

<https://www.w3.org/WAI/WCAG20/quickref/>

<https://webaim.org/standards/wcag/checklist>

Basic Accessibility Techniques

Language Attribute

- Since a screen reader pronounces the words, it has to know what language to speak.

```
<html lang="en">  
  <span lang="fr">"C'est la vie,"</span> Stephen  
  muttered as he watched a website crash again  
  because a client insisted on hosting with  
  GoDaddy .
```

English text wrapped with an incorrect `lang="cs"` attribute

Most people today can hardly conceive of life without the Internet. Some have argued that no other single invention has been more revolutionary since Gutenberg's printing press in the 1400s. Now, at the click of a mouse, the world can be "at your fingertips"—that is, if you can use a mouse... and see the screen... and hear the audio—in other words, if you don't have a disability of any kind.

Link Text

- Every link should make sense if the link text is read by itself.
- Provide context in your link text and avoid uninformative link text
 - Do not use “click here”, “read more”, or “link to https://www.google.com”
- Be considerate of screen reader users when using URLs as link text. Don’t make it an extremely long URL that they have to listen to.
- If an image is the only thing within a link tag, it must have alternative text in the alt tag.

Skip Links

- Provide a method that allows users to skip navigation or other elements that repeat on every page.
 - Example: "Skip to Main Content," or "Skip Navigation" link at the top of the page which jumps to the main content of the page

Page Structure

- Use page structure that makes sense (headers, bullets, blockquote, etc.).
- Your page title should always be an H1 tag. You should follow the hierarchy for the rest of the headers tags on a page (i.e. H1 > H2 > H3, etc.).

ALT Tags for Images

- Add meaningful ALT tags for images that need to convey meaning.
- If an image does not need to convey meaning and is just for visual interest, an empty alt tag can be used.
- Don't forget to add an ALT tag to your logo, especially if it's a link to the home page.
- Train your content admins on how to write good alt tags.

Good ALT Content

- ALT content should present the *content* and *function* of the image.
 - This means that good ALT content will depend heavily on the context for the image.
- ALT content should not be redundant - it should not be the same as other adjacent text or body text.
- ALT content should not use the phrases "image of ..." or "graphic of ..." to describe the image.
 - JAWS precedes the alternative text with the word “graphic.” If the image is a link, JAWS precedes the alternative text with “graphic link.”

What starts here changes the world.

The University of Texas at Austin provides public access to a first-class education and the tools of discovery have resulted in a culture of ambition and leadership, where physical scale is matched by bold goals and achievements.



Serving the State

From the Panhandle to the Gulf Coast, UT is improving the lives of Texans across the state. [LEARN MORE >](#)



DOD Awards \$1.1 Billion to Applied Research Laboratories

The U.S. Navy awarded Applied Research Laboratories at UT Austin (ARL:UT) the largest research contract in the university's history to conduct research and development to improve U.S. national security. [READ MORE >](#)



Gummy Burger!™

\$7.45

How does a burger with the works sound? A Gummyburger, that is! Our original juicy burger comes complete with cheese, lettuce and tomato, each individually flavored! When it's too cold to grill, or for non-meat eaters, this scrumptious looking treat will make your mouth water! Cherry flavor.

1

ADD TO CART



SHOP BY YOUR FAVORITE FLAVOR



Use the Description Field for Images in EE

- In EE specifically, train your content admins on how to use the Description field for each uploaded image and code your template to pull in that field as the alt tag.

Edit "Visit Austin Logo" Meta Data

CROP, ROTATE & RESIZE

File Data

Categories

Title

Visit Austin Logo



Description

Credit

Location

SAVE FILE META

```
{image_field}{/image_field}
```

Tables

- Tables should tie column & row headings to data to help users identify which headers go with which pieces of data.
 - Example: `<th scope="col">Title</th>` or `<th scope="row">Name</th>`
- Identify table captions
 - Associate the description with the table by using the `<caption>` tag as the first tag inside your table markup.

`<table>`

`<caption>Class Schedule</caption>`

Color

- Color should not be the only indicator used for information.
- Check color contrast
 - Colorblindness affects as many as 8% of men (1 in 12) and 0.5 percent of women.
 - Around 25 million men with color blindness just in the US

WebAim Color Contrast Checker: <http://webaim.org/resources/contrastchecker/>

Forms

- Ensure that all users can complete and submit all forms. Make sure that a form can be completed just using a keyboard or a screen reader.
- Ensure that every form element (text field, checkbox, dropdown list, etc.) has a label and make sure that label is associated to the correct form element.

```
<label for="hair">Hair Type</label> <input  
type="text" name="hair" id="hair">
```

- Identify Required Form Fields with the HTML5 **required** attribute

```
<input type="text" name="username" required aria-  
required="true">
```

Forms – Radio Buttons and Checkboxes

Wrap radio buttons and checkbox groups with **fieldset** tags and use a **legend** tag to provide a group prompt

```
<fieldset>
  <legend>Do you love disco?</legend>
  <div>
    <input type="radio" name="discolove" id="absolutely"
value="Absolutely">
    <label for="absolutely">Absolutely! Disco is amazing.</label>
  </div>
  <div>
    <input type="radio" name="format" id="growup" value="Grow Up">
    <label for="growup">Grow up. Disco is lame.</label>
  </div>
</fieldset>
```

Remove tabindex

- If the **tabindex** value is 1 or higher it can often cause more accessibility issues than it solves.
- Your navigation order should be logical. If it is not logical it's a better idea to restructure the underlying code.
- Easily test by trying to navigate through the site with the Tab key.

Add Basic Landmarks and HTML 5 Sectioning Elements

- ARIA landmarks identify significant page areas, giving them meaning and making them more keyboard navigable.

```
<div id="maincontent" role="main">  
<div id="navigation" role="nav">  
<form action="search.php" role="search">
```

- You can also use HTML elements such as `<nav>`, `<main>`, and `<header>`

Captions and Transcripts

- Videos and live audio must have captions and a transcript
- The video player must be accessible to keyboard only and screen reader users.
- YouTube has come a long way with accessibility built into it's embedded player and it allows you to add captions to videos using their tools.
- Use a separate description track to describe what's happening in the video.
 - Example: Stevie Wonder Video

Enhance Focus Indicators

- Make sure that elements on the page a user needs to interact with receive a focus indicator.

```
a:hover,  
a:focus {  
    outline:1px solid red;  
    background:yellow;  
}
```

- Every **a:hover** element should have an **a:focus** element as well.

Dropdown Menus

- Use a dropdown menu that can be operated with a keyboard alone without requiring 127 keystrokes
- Use a dropdown menu that can be operated by people who have trouble keeping the mouse in one place for long periods of time

JavaScript Accessibility

- JavaScript event handlers should be device independent (they should not require the use of a mouse)
 - A 2012 survey by WebAIM of screen reader users found that 98.6% of respondents had JavaScript enabled. The numbers are even higher for users with low vision or motor disabilities.
 - People with disabilities will experience scripting, so scripted content must be made natively accessible.
- WAI-ARIA (Web Accessibility Initiative – Accessible Rich Internet Applications), defines ways to make Web content and Web applications more accessible to people with disabilities

Accessibility Testing Tools

Page and Site Scanners

- WebAim WAVE Tool – An easy and free way to check the accessibility of a page on your site – <http://wave.webaim.org>
- Sortsite – <https://www.powermapper.com/products/>
- Pa11y – <http://pa11y.org>
- Asqatasun – <http://asqatasun.org>
- aXe from Deque – <https://www.deque.com/products/axe/>
- WorldSpace Comply – <https://www.deque.com/products/worldspace-comply/>

Manual Testing

- Really the best way to ensure accessibility.
- You can do a lot of testing on your own, but it does take time.

Try using the site using only a keyboard, in monochrome, or with a screen reader.

Accessibility Basics

- Why accessibility matters
- The new Section 508 requirements
- Accessibility best practices
- Useful testing tools

Questions?

Drop off your card to get the slides

OR

email me at stephen@trademarkmedia.com

Get in touch

stephen@trademarkmedia.com

trademarkmedia.com

tm trademarkmedia