

Web Accessibility

Accessibility is the extent to which a web site can be used by individuals with disabilities.



Web Accessibility

- Legal, ethical reasons
- Financial reasons



Potential Legal Framework

Section 508 of the Rehabilitation Act

- Bars the Federal government from procuring electronic and information technology (E&IT) goods and services that are not fully accessible to those with disabilities;

Americans with Disabilities Act of 1990

- Prohibits discrimination on the basis of disability in "places of public accommodation."

Section 225 of the Telecommunications Act of 1996

- Requires suppliers to make telecommunications products and services accessible unless requiring significant difficulty or expense.



Compliance

Likely that government agencies will comply with Section 508 guidelines

Private entities business case:

- Drives innovation - solutions can apply to wider audience
- Enhance brand - Diversity/inclusion helps position brand
- Extend market - millions of people in US alone
- Minimize legal exposure



World Wide Web Consortium (W3C)

Creates web standards

Web Content Accessibility Guidelines

www.w3.org/WAI/standards-guidelines/wcag/



Levels of Accessibility

A - Minimum level

Leaves out many groups of users with disabilities

AA -Medium level

Removes many significant barriers

AAA - Maximum level

Not always possible



Example - Levels

How to meet WCAG 2 (Quick Reference):

<https://www.w3.org/WAI/WCAG21/quickref>

1.4.3 Contrast (Minimum) — Level AA

The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following:

[▼ Hide full description](#)

- **Large Text:** Large-scale text and images of large-scale text have a contrast ratio of at least 3:1;
- **Incidental:** Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement.
- **Logotypes:** Text that is part of a logo or brand name has no contrast requirement.

<https://webaim.org/articles/contrast/>

webaim.org/resources/contrastchecker/



Example - Levels

jtc372.net

- Level AA 4.5:1 contrast ratio for normal text
- Large text 3:1 ratio or greater
- Large text > 1.5em (24px) or ~1.2em (~19px) bold

Nav bar passes for large text (1.2em bold)



Example - Colorblind Web Page Filter

Protanopia - Red/green color blindness

www.toptal.com/designers/colorfilter



Example - Screen reader (Chrome Vox)

- Now part of Chrome
- Shift + alt + down arrow to next element
- Tab to next link
- chromewebstore.google.com/detail/screen-reader/kgejglhpjiefppelpmljglcjbhoiplfn



Example - Skip Navigation Link

Can't use `display: none;` because that hides it from the reader.

```
<div class="skiplink"><a href="#main">skip navigation</a></div>
```

```
.skiplink {  
    position: absolute;  
    left: -10000px;  
    top: auto;  
    width: 1px;  
    height: 1px;
```

```
}
```



Example - Captioning

<https://jtc372.net/course/video-lectures/two-columns.php>

Show vtt file



Example - Accessibility Standards

accessibility.colostate.edu/designing-developing-web-pages/

www.colorado.edu/digital-accessibility/resources

