“The one argument for accessibility that doesn’t get made nearly often enough is how extraordinarily better it makes some people’s lives. How many opportunities do we have to dramatically improve people’s lives just by doing our job a little better?” — Steve Krug
Table of Contents

Summary 3
Alt Text for Images, Drawings, Graphics 3
Audio/Video 4
Color 4
Font Styles 4
Forms 5
Google Slides (Presentations) 5
Headings 5
Lists: Ordered (Numbered), Unordered (Bullets) 5
PDFs 6
Table of Contents 6
Tables 6
Text Size & Alignment 7
Resources & Tools 7
  WCAG 2.0 Checklists 7
  Campus Resources 7
  Evaluation Tools for Web Pages 7
  Screen Readers 7
  Color Contrast Checkers 8
  PDF Compliance Information 8
  More Resources 8
Summary

From W3C: “Web Content Accessibility Guidelines (WCAG) 2.0 covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these. Following these guidelines will also often make your Web content more usable to users in general.”

The University Library Accessibility Guide aims to provide an overview of concepts required to make content accessible to all users. All public-facing content will need to meet WCAG 2.0 Level AA standards. Resources restricted to PSU users (many of which require login off-campus) are not considered public-facing, although we strive for all content to be accessible. Many applications have their own sets of instructions for making content accessible.

Contact Library Technologies for help with a particular concept of application.

See the Accessibility Checklist for technical specifications used by web designers, including more details about the WCAG 2.0 Level AA standards, from which this guide is derived.

Alt Text for Images, Drawings, Graphics

- Be sure to include alternative text for all images, drawings, or graphics.
  - Images that do not convey content, are decorative, or contain content that is already conveyed in text do not need alt text.
- Do not include phrases like “image of...” -- it is redundant for screen readers.
- Verify alt text that may have been automatically added is descriptive.
- In Google Documents or Presentations, add or edit alt text:
  1. Select the image.
  2. Go to Format, then Alt text.
  3. Enter alt text in the description field.

Audio/Video

If audio or video media are not an alternative to the content, the following applies:
- Write text transcripts for audio-only and video-only media.
- Record an audio track for any video-only media.
- Add captions to all videos with sound. (YouTube tool lacks accuracy.)
- Provide a full text transcript of the video, or a version with audio description.
- Provide simultaneous subtitles for all live media that contains audio (audio-only broadcasts, webcasts, video conferences, Flash animations, etc.).
- Audio descriptions are provided for all video content. Audio description version must include everything that might be lost to a visually impaired user – things like:
  - Relevant exposition (location, gestures, lighting, colours).
  - Identifying new speakers.
  - Marking the passing of time.
- Audio does not play automatically; if it does, a stop button is provided.

Color

- Do not communicate information based on color alone (“press the green button”).
- Set the contrast ratio of the font color to the background color to at least 4.5:1.
- Set at least 3:1 contrast ratio for 18 pt fonts or 14 pt or larger bold text.
- Contrast rules apply to all text, as well as to borders around input fields.
- Rules do not necessarily apply to logos, logotypes or purely decorative graphics.
- Picking a contrast ratio of 7:1 meets the WCAG 2.0 Principle 1.4.6, AAA standard.
- Resources:
  - WebAim Color Contrast Checker
  - Color Safe – Create an accessible color palette
  - Toptal Colorblind Web Page Filter

Font Styles

- Screen readers may not announce formatting changes (boldface or highlighting).
- Bold, highlighted, italicized, or underlined text should be preceded by a word, such as “Important” for people who cannot discern these visual cues.

Forms

- In forms with multiple parts, group the content into information blocks.
- Ensure that the field labels and related form input fields are logically linked.
- PDF forms are required to have:
  - Interactive labeled form fields with accessible error messages, no timing.
Google Slides (Presentations)

- Google Slides can display your whole presentation in a single, scrollable HTML page.
- Displaying one slide at a time means added effort for people who use screen readers.
- To access a presentation in HTML view, go to View and select HTML View.

Headings

- Use headings to divide your document into sections.
- Headings allow keyboard shortcuts to jump to content.
- HTML header tags (h1, h2, ..., h6) should be used for web pages and documents.
- In Google Documents:
  - Use the Format menu to select heading fonts
  - Or select the “Normal text” drop-down shortcut to change heading styles.

Navigation Landmarks

- Landmarks like headers, footers, page numbers, and page counts allow navigation.
- In Google Documents, navigation landmarks are available in the insert menu.

Lists: Ordered (Numbered), Unordered (Bullets)

- Use formatting features of editing tools to create screen-readable lists.

PDFs

- The accessibility of the PDF depends on the accessibility of the original document.
- Scanned images of text are inherently inaccessible.
- Optical Character Recognition (OCR) conversion makes text accessible.
- Characteristics of Accessible PDFs -- See Adobe Overview below for more details.
  - Searchable text
  - Fonts that allow characters to be extracted to Unicode
  - Interactive labeled form fields with accessible error messages, no timing
- Hyperlinks and navigational aids
- Document language and title Indication
- Security that will not Interfere with assistive technology
- Consistent navigation and identification of elements
- **Document structure tags and proper reading order**
- Use of text instead of images of text
- Alternative text descriptions for non-text elements
- No reliance on color or sensory characteristics alone to convey meaning
- Use of color combinations that provides a sufficient degree of contrast
- No use of flashing or blinking elements
- No focus changes without user initiation
- Controls for audio

- **Resources:**
  - [Adobe PDF Accessibility Overview](#)
  - [WebAIM PDF Accessibility -- Converting Documents to PDF](#)

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**Table of Contents**

- A website, document, or presentation needs a sitemap, table of contents, or both.
- In Google, use the Insert menu to add a table of contents.

**Tables**

- **Use tables for presenting data, not for changing the visual layout of the page.**
- Present a table summary describing the contents of the table.
- Label column/row headings; screen readers read the first row as a heading.
- Avoid using empty cells to create space in the layout.

**Text Size & Alignment**

- To make your document or presentation easy to read, use large, left-aligned text.
- Justified text is more difficult to read because of extra space between the words.
- For web documents, use relative fonts (em) to ensure text can be resized.
- Check your font sizes by resizing to 200% in a variety of browsers.
Resources & Tools

WCAG 2.0 Checklists

W3C: How to Meet WCAG 2.0
WebAIM's WCAG 2.0 Checklist
Wuhcag WCAG 2.0 Checklist

Campus Resources

PSU Accessibility Website: Web and Electronic Environments
PSU Accessibility Website: Training
PSU Office of Academic Innovation Accessibility Support
PSU Disability Resource Center
PSU Accessibility Committee
PSU Library Accessibility Web Page

Evaluation Tools for Web Pages

HTML Codesniffer (Bookmarklet)
WAVE Evaluation Tool Extension for Chrome
AChecker Website Accessibility Checker
SortSite Website Testing Tool (free trial)
Pendule for Chrome (Chrome extension to toggle CSS on and off)
Khan Academy Tota11y Accessibility Visualization Toolkit

Screen Readers

NVDA (free screen reader)
Mozilla Add-on: Fangs Screen Reader Emulator
Using JAWS to Evaluate Web Accessibility (JAWS requires installation)

Color Contrast Checkers

WebAim Color Contrast Checker
Color Safe – Create an accessible color palette
Toptal Colorblind Web Page Filter
PDF Compliance Information

Adobe PDF Accessibility Overview
WebAIM PDF Accessibility -- Converting Documents to PDF

More Resources

One page Software-specific Cheat Sheets (NCDAE)