



# **WEB ACCESSIBILITY BASICS & GUIDELINES**

# Why Is Accessibility Important?

Approximately 20 percent, or 1 in 5 people, in the United States has some form of disability. About 11 percent of college students have a disability. As an institution of higher learning, having an accessible website that provides equal access and equal opportunity for all is essential.

That's why there is a framework of federal laws and regulations, including the Americans with Disabilities Act (ADA) and Section 508 of the Rehabilitation Act of 1973, that require the University to have an accessible website.

Section 508 was updated in 2000 and again in 2017 to reflect the changes in technology and the need for accessibility in regards to the internet. In 2017, Section 508 was updated to align with the Web Content Accessibility Guidelines (WCAG) 2.0, AA success criteria. WCAG itself was updated to version 2.1 in 2018 and all content that conforms to version 2.1 also conforms to WCAG 2.0.

## What Is WCAG?

WCAG is a set of technical standards developed under the guidance of the World Wide Web Consortium (W3C), which is the international standards organization for the web. [View a video introduction to Web Accessibility and W3C standards.](#)

### **WCAG is a set of 12 guidelines organized under a set of four principles:**

**Perceivable:** provide text alternatives for non-text content; provide captions and other alternatives for multimedia content; ensure content can be presented in different ways with assistive technology without losing its meaning; and make it easier for web visitors to see and hear content.

**Operable:** all functionality available using a keyboard; providing enough time; content will not cause seizures; multiple ways to help users navigate and find content.

**Understandable:** text is readable and understandable; content operates in predictable ways; assistance to avoid and correct mistakes.

**Robust:** content is compatible with current and future user tools.

There are three levels of success criteria within WCAG — A, AA and AAA. Federal guidelines require compliance with level AA, although compliance with AAA success criteria is preferred if possible. W3C points out that even content conforming to a AAA compliance level will still not be accessible to all — there is no “perfect” system to ensure all content is accessible for all people.

# Tips to Ensure Your Content is Accessible

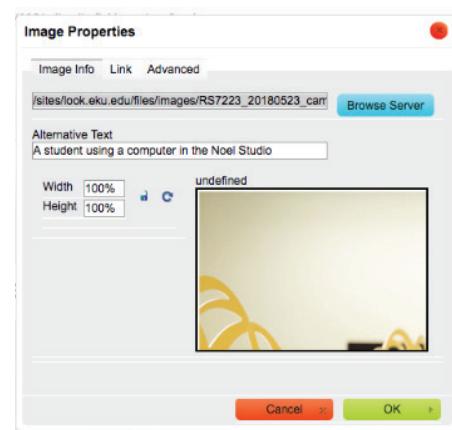
## IMAGES

All images must have alternative text (alt text). Alt text is required for publishing within the content management system (CMS).

Alt text serves a number of functions, the most important of which is to allow the purpose/presentation of the image to be accessible to those with visual or cognitive disabilities.

### Alt text should:

- ▶ Equivalently describe the image.
- ▶ Describe it succinctly. Try to keep alt text to 16 words or less.
- ▶ Be unique. Make sure each alt text on a site is different.
- ▶ NOT be redundant (i.e. it should not duplicate already included content.)
- ▶ NOT include phrases such as "picture of..." or "image of..."
- ▶ NOT include copyright/source information of the image.
- ▶ Include supplementary information about a graphic that isn't included within the standard content.
- ▶ NOT be generic (i.e. "Student" or "Building")



The screenshot shows a CMS interface with an image of a building on the left. To the right, there is a text input field labeled 'ALTERNATE TEXT: \*' containing the text 'Powell building reflected in water'. Below the input field, a note says 'This text will be used by screen readers, search engines, or when the image cannot be loaded.'

The screenshot shows a CMS interface with another image of a building on the left. To the right, there is a text input field labeled 'ALTERNATE TEXT: \*' containing the text 'EKU Powell Building Image'. Below the input field, a note says 'This text will be used by screen readers, search engines, or when the image cannot be loaded.'

In cases of purely decorative images — images that are not part of the content, but are simply design elements — null alt text (`alt=""`) is accessible and the proper way to continue, since the expectation is that content must stand alone. Images being added by content creators would not meet the definition of "purely decorative" and MUST have alt text.

Charts and other complex images require more than the short description that can be given from alt text. But charts and complex images can actually increase accessibility.

See [webaim.org/techniques/alttext](http://webaim.org/techniques/alttext) for more details on alt text.

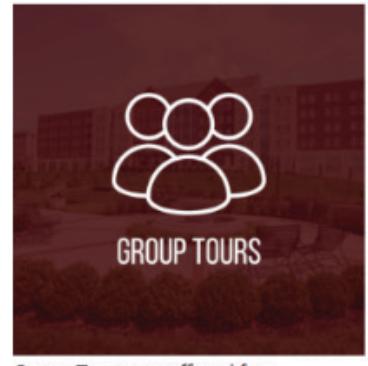
## IMAGES OF TEXT/TEXT WITHIN IMAGES

Text within logos, when appropriate alt text is included, is acceptable. Generally, it's considered a poor practice to include text within an image, especially if the text is important to the understanding within the content. In these cases, the text within the image must be contained within the alt text. A purely image presentation of text or information should never be used.

## ICONS

If you utilize icons, ensure that they are:

- ▶ Simple
- ▶ Are easily understood/well-designed
- ▶ Would not be misunderstood because of culture and/or language
- ▶ Are not dependent upon color
- ▶ Include appropriate alt text



Group Tours are offered for elementary, middle and high school students.

## ANIMATION

It's generally considered a poor practice to utilize animation on the web, because animations simply act as a distraction. This includes animated .gif files and Adobe Flash. There's hardly a case for making content more accessible by including animations.

If you do include animation within content, it must:

- ▶ Be controllable by the user and/or very short in duration.
- ▶ Not move, blink, or scroll for more than five seconds without having the ability to pause, stop, or hidden by the user (**WCAG 2.0 Success Criterion 2.2.2 - Level A**)
- ▶ NOT flash more than three times per second.
- ▶ NOT be of the type of graphic that can cause a photo-epileptic seizure (**WCAG 2.0 Success Criterion 2.3.1 - Level A**).

## COLOR

Because visitors may be colorblind or low-vision, a sufficient contrast between background and foreground (both text and graphical elements) must be present. There must be a contrast ratio of at least 4.5:1 except when:

- ▶ Text is rendered at 18pt or 14pt if bold. Here, a ratio of 3:1 applies.
- ▶ Text or image is incidental, such as on decorative images or not visible. Photographs also have no requirement for contrast ratio.
- ▶ Text is part of a logo/name brand.

Use the [\*\*WebAim tool to check color contrast\*\*](#).

Color should never be used as a method of communicating content.

Don't say things like "click on the red button."

## PAGE TITLES

Concise, unique page titles will ensure all visitors can quickly understand the purpose of a webpage. Page titles are the first element announced by screen-readers.

## HEADINGS

Headings within web pages provide structure and should always be correctly applied.

<H1> is the highest heading level and <H6> is the lowest heading level. The hierarchy should always be applied in order, like:

- Heading 1
  - Heading 2
    - Heading 3
    - Heading 3
  - Heading 2
    - Heading 3
    - Heading 4

## CAPTIONS/TRANSCRIPTS

Video content should always have accurate, synchronized captioning.

YouTube provides closed captioning by default, however, accuracy is not foolproof. Ensure the CC content provided by YouTube is accurate.

Audio content should always have accurate, full-text transcripts as an alternative representation.

If you're including audio-only files, also include a transcript.

## LINK TEXT

Link text should be clear and meaningful, so avoid link phrasing that isn't easily understandable. Don't use link text that's unclear, such as:

- ▶ Click Here for today's weather
- ▶ More information

To visitors viewing the entirety of a site, those unclear links may seem perfectly clear. But to visitors using a screen reader or another alternative browsing method, they're patently unclear. By adjusting the text, a clearer picture can be given, such as:

- ▶ Today's weather
- ▶ Learn about EKU

Link text should never be empty.

For more information and/or details on structuring link text, see:

[webaim.org/techniques/hypertext/link\\_text](http://webaim.org/techniques/hypertext/link_text)

Do not utilize underlines to place emphasis on text, or on text that is not a weblink.

# ADOB E PORTABLE DOCUMENT FORMAT (PDF) FILES

There are a number of reasons why you might want to include PDF files on your website, including:

- To maintain design and formatting,
- To protect the document from editing,
- To allow wide distribution and/or printing in the original, intended format.

And like other content, Adobe PDF files must also meet accessibility guidelines when shared on the web.

## DO:

- Start with an accessible source document created in Microsoft Word or Adobe InDesign.
- Ensure the PDF file has appropriate tags.
- Use appropriate nesting in headings. The examples used in the "Headings" section of this document also apply to PDF files.
- Include alt text for all images and charts within the PDF, unless they are decorative or redundant/are not part of the content.
- Use the Accessibility Checker in Adobe Acrobat Pro before uploading your PDF file. Correct any accessibility issues it finds.
- Define the Primary Language and that the file has a Title. The title is different from the filename.

The screenshot shows the 'Accessibility' panel of Adobe Acrobat Pro. On the left is a vertical toolbar with icons for file, copy, paste, find, and other document functions. The main area is titled 'Accessibility' and contains the 'Accessibility Checker' tool. A sidebar on the right lists various accessibility issues found in the document, categorized into sections: 'Document (5 issues)', 'Page Content (2 issues)', and 'Form (1 issue)'. Each item is accompanied by a green checkmark for passed items or a red X for failed items, along with a brief description.

Category	Issue Description	Status
Document (5 issues)	Accessibility permission flag	Passed
	Image-only PDF	Passed
	Tagged PDF	Failed
	Logical Reading Order	Needs manual check
	Primary language	Failed
Page Content (2 issues)	Title	Failed
	Bookmarks	Passed
	Color contrast	Needs manual check
	Tagged content	Passed
	Tagged annotations	Failed
Form (1 issue)	Tab order	Failed
	Character encoding	Passed
	Tagged multimedia	Passed
	Screen flicker	Passed
	Scripts	Passed
	Timed responses	Passed
	Navigation links	Passed

## DON'T:

- Use a PDF document if there's no essential reason for doing so. If the information could be shared as a webpage, the use that format instead.
- Scan documents and create image-only PDF files. Image files are NOT accessible as PDF documents, even if appropriate alt text is added.
- Split rows of a table across pages.
- Use ambiguous or unclear copy for links.
- Use confusing navigation.
- Use references to color or other sensory characteristics.
- Use tiny fonts.
- Use background images or watermarks.

For more information on creating WCAG 2.0 compliant PDF files, see

[www.w3.org/TR/WCAG-TECHS/pdf.html](http://www.w3.org/TR/WCAG-TECHS/pdf.html)

For more information and/or details on Adobe PDF accessibility mitigation, see [helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html](http://helpx.adobe.com/acrobat/using/create-verify-pdf-accessibility.html)

For a more in-depth assortment of tools, see [www.w3.org/WAI/ER/tools/](http://www.w3.org/WAI/ER/tools/)

## TABLES

Tables should never be used for layout. They should only be used to present tabular information in a grid or matrix format, and there should always be columns/rows that show the meaning of the information within the grid.

While not a requirement, tables can utilize a <caption> element that gives a brief description of the contents of the table.

For more information on utilizing tables, see [webaim.org/techniques/tables/data](http://webaim.org/techniques/tables/data).

## WEB ACCESSIBILITY CHECKERS

There are a number of free web accessibility checkers and tools available for use to assess the accessibility of websites. They include:

- ▶ [AChecker](#)
- ▶ [ATester](#)
- ▶ [Colorblind Web Page Filter](#)
- ▶ [Color Contrast Checker](#)
- ▶ [Sitelimprove Accessibility Checker Chrome Extension](#)
- ▶ [WAVE: Web Accessibility Evaluation Tool](#)



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