

# An Introductory Guide and Resources for Creating Accessible Documents and Presentation Materials

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## Accessibility Support & Resources

### Important Sites for Accessibility Information and Support

[AEM Center](#): The National Center on Accessible Educational Materials for Learning at CAST provides technical assistance, coaching, and resources to increase the availability and use of accessible educational materials and technologies for learners with disabilities across the lifespan.

[WebAIM](#): WebAIM offers accessibility training, technical assistance, and many other resources to support accessible websites and documents. They also have a monthly newsletter, color contrast checker, and web accessibility evaluation tools.

[OCR Accessibility Video Series](#): The U.S. Department of Education Office of Civil Rights created a video series covering a variety of topics on digital access in education, including how people with disabilities use technology with an emphasis on web design, applicable Federal regulations, and identifying and remediating barriers to access.

[Accessibility Training in Microsoft](#): Microsoft offers a full instructional video series with text descriptions on getting started with accessible content and creating accessible emails, PowerPoint presentations, Word documents, and Excel Spreadsheets.

[Accessibility Features in Google by Disability Category](#): Explore all of Google's accessibility and products across various disability support specific to areas such as cognitive, hearing, mobility, speech, and vision supports. This includes examples such as keyboard shortcuts, braille display, touch input, screen reader capability, screen magnification, closed captions, voice commands, color contrast, and many more.

[Accessibility on Apple Products](#): Explore all of Apple's accessibility tools based on product and various disabilities including vision impairment, hearing impairment, mobility difficulties, and cognitive supports. Tools include examples such as changing text and display settings, dark mode, headphone accommodations, live caption generators, sensory alerts, VoiceOver, VoiceOver + Braille, voice and switch control, AssisitiveTouch, predictive text, Guided Access, Siri supports, and many more.

[Accessibility Design Guide](#): While this website has a website structure in mind, it has key design rules to consider when presenting and sharing digital content. This includes accessibility topics such as colors, typography, icons, consistency, animation use, decorative elements, and gestures.

[Web Content Accessibility Guidelines \(WCAG\)](#): WCAG is a set of technical requirements for making web-based content, like websites and web-based applications, accessible for users of every ability. This website breaks down the POUR guidelines specific to digital or online content.

[National Instructional Materials Access Center \(NIMAC\)](#): a federally funded, online repository of 75,000 K-12 source files across 160 publishers in NIMAS format to produce accessible formats for students with disabilities. States use these materials in the production of accessible formats such as braille, large print, and digital text.

[Described and Captioned Media Program \(DCMP\)](#): DCMP provides a streaming library of accessible education videos, teaching, tools, and professional development opportunities that partners with educational content creators to provide high-quality captioning, audio description, and American Sign Language (ASL) translation.

[Bookshare](#): An e-book library with over 1.2 million titles where people with reading barriers can customize their reading experience across various devices at school, home, or work. This includes people with dyslexia, learning disabilities, visual impairments, and/or physical disabilities.

[Center on Inclusive Technology Education and Systems \(CITES\)](#): the Center on Inclusive Technology & Education Systems (CITES) works with school districts to create and sustain inclusive technology systems that serve all students, including students with disabilities who require assistive technology or accessible educational materials. CITES is creating and disseminating a framework in alignment with the National Education Technology Plan and evidence-based practices and providing technical assistance to districts, educators, and families to ensure that students with disabilities are able to use the technology tools they need to foster learning and life success.

[Rhonda Weiss Center](#): The Rhonda Weiss Center for Accessible IDEA Data leverages trusted technical assistance providers and best practices to assist states in meeting their data demands through dynamic and highly accessible formats indirectly impacting data across districts and schools in the community.

[Purdue University Accessibility Video Series](#): Purdue University has a high-quality developed playlist of short 2–3-minute videos on accessible design including topics such as running accessibility checks, reading order, accessible tables, fillable accessible forms, headings and styles, alternative text, accessible tables, and many more.

## Accessibility Tips for Microsoft Teams & Presentations

### Resources for Creating Accessible Presentations

- Quick video on [how to run the Accessibility Checker in PowerPoint.](#)
- [IRIS Center Presentation Accommodations](#)
- [National Clearinghouse of Rehabilitation Training Materials \(NCRTM\) Checklist for Accessible Webinars](#)
- [National Clearinghouse of Rehabilitation Training Materials \(NCRTM\) Checklist for Creating Accessible PowerPoints](#)
- [Section 508.gov Training Videos: Creating Accessible PowerPoint Presentations](#)

### Tips for Meeting Organizers in Teams

Below are links to tips for organizers who are setting up Teams meetings. These links are helpful in ensuring that the settings within the meeting are accessible to those with disabilities and can support the interaction of all attendees.

#### Tips for organizers

- [Plan for an inclusive meeting or live event](#)
- [Gather and share the material](#)
- [Provide info on how to easily access the meeting](#)
- [Include live captions](#)
- [Include Q&A](#)
- [Share the meeting or live event recording](#)

### Tips for Producers or Moderators in Teams

Below are links to tips for producers who are starting the Teams meeting or who are the “host” who controls the live stream event. This person is sometimes called the moderator. This person ensures that the speaker or interpreter is pinned, the meeting is recorded, captions are turned on, and screen sharing is active.

#### Tips for producers

- [Set up for an inclusive live event](#)

- [Record meetings](#)
- [Reduce distractions](#)

### Tips for Presenters and Speakers

Below are links to tips for the presenters and speakers in a Teams meeting. This person is in the meeting and presents audio, video, or a screen to the attendees. They may also answer questions in their presentation's chat or Q&A section. While they share some requirements of a moderator, it is the presenter or speaker's role to ensure that the material (e.g., PowerPoint, Slides, PDFs) is accessible and follows accessibility guidelines used by the [POUR accessibility guidelines](#).

#### [Tips for presenters and speakers](#)

- [Before your presentation](#)
- [During your presentation](#)

### Enabling Closed Captions and Transcripts for YouTube

In this document, there are many links to resources that are either created or referenced through the YouTube platform. Some of the videos may or may not have embedded captions depending on the resource; however, YouTube has embedded captions that can be turned off and on in addition to a downloadable transcript. This may also be beneficial if you are presenting a YouTube video for a live audience. Below you will find videos on how to turn on and off the captions on YouTube for accessibility and how to access the transcript.

- Video [on how to show and search transcriptions on YouTube](#).
- Video on [how to enable closed captions on YouTube](#).

### Embedded Automated Accessibility Features

While not a fully comprehensive accessibility check, embedded accessibility checkers or features in programs such as Microsoft Word, PowerPoint, and Excel or Google Docs, Slides, and Spreadsheets can run an initial accessibility check automatically for you. It will check for readability with headings and styles, ensuring that ALT text is added to images, that tables are formatted properly, and that color contrast is sufficient – in addition to any other features.

- Quick video on [how to add the Accessibility tab in Google](#).
- Quick video on [how to run the Accessibility Checker in Word](#).
- Quick video on [how to run the Accessibility Checker in PowerPoint](#).

- [Purdue Video: Accessibility Checker in Microsoft Word](#)
- [Accessibility checks from Microsoft in video and text descriptions.](#)
- [Accessibility checks across Google Workspace products by program and browser.](#)

## Live Closed Caption Generators

When presenting or including videos in your content, it is important to include automatic live subtitles or closed captions in your video or presentation. Translating or transcribing the video's narrative makes it more accessible to those with hearing impairments. Captioning also supports those who may be learning a new language.

- Quick video on [How to add live captions during a presentation in Windows.](#)
- [Live captions and transcriptions in Teams](#)
- [Live captions on Mac](#)
- [Live captions in Windows](#)
- [OCR Video: Video Captioning](#)

## S.L.I.D.E. Accessibility Checks for Documents

[S.L.I.D.E. accessibility checks for documents](#) include the basic accessibility functions of documents (e.g., Microsoft Word document or Google Doc) that all professionals should consider – whether for a conference or in a professional setting. The S.L.I.D.E. accessibility check includes:

**Styles:** Use of section headings and appropriate fonts.

**Links:** Embed links in the text and do not use “click here” or naked URLs.

**Images:** Add alternate text to all images or mark them as decorative.

**Design:** Check for color contrast and visual design.

**Evaluation:** Use the accessibility checkers to identify and correct errors.

## S.L.I.D.E. Resources

The S.L.I.D.E. methodology for checking accessibility is beneficial for your audience and/or readers with and without disabilities. Below are resources from CAST and OCR on getting started with accessibility in mind.

- [AEM Center at CAST Getting Started with Accessible Documents Summary](#)
- [AEM Center at CAST Getting Started with Presentation Accessibility Summary](#)
- [OCR Video: An Introduction to Digital Accessibility](#)
- [OCR Video: Digital Accessibility – 3 Points About the Law](#)
- [OCR Video: How Some People with Disabilities Use Technology](#)
- [Recommended Practices and Tips for Digital Accessibility](#)

## P.O.U.R. Accessibility Check

The remainder of this document includes the breakdown of the Perceivable, Operable, Understandable, and Robust (POUR) Accessibility Check guidelines and reasons for implementation provided by the AEM Center at CAST, as well as video tutorials, and direct resources based on various Google and Microsoft products. While these guidelines are typically used in website design and development, the same best practices can be applied to the development of documents and presentations and align with the S.L.I.D.E methodology for checking for accessibility.

### Perceivable (P)

*Add text descriptions to your images.*

Your readers or audience who use text-to-speech technology will need accurate descriptions of your images and figures, also known as alternative text, to be able to understand the meaning or context of the image. This description should be concise and focus on the essential information in the image. If the image includes a hyperlink, such as opening a website, the alternative text should inform the reader or audience of the action that will take place when the image is selected.

- Quick video on [how to add ALT text in Google](#).
- Quick video on [how to add ALT text in Microsoft](#).
- [Purdue Video: Making Images Accessible in Microsoft Word](#)



- [Web-based Image ALT Text checker](#)
- [ALT Text Google Chrome Extension Checker](#)
- [Adding ALT Text in Microsoft video and text instructions.](#)
- [OCR Video on alternative text](#)

### Provide sufficient color contrast.

When text has low contrast, your readers or audience will strain to read the content. When there is higher contrast, readers' focus and energy can be more devoted to gaining a better understanding of the information in your document or presentation. Web and digital accessibility standards require specific ratios (measures of contrast between colors) must be met or exceeded for accessibility, and there are several free color contrast checkers to help you check that your colors have sufficient contrast. These checkers will usually determine if the contrast ratio passes or fails accessibility standards.

- Quick video on [how to find a hex code and check color contrast.](#)
- [Color contrast checker](#)
- [Website color contract checker](#)
- [OCR Video on color contract](#)

### Include visual cues or icons.

Not all people perceive color in the same way. Some people may have difficulty seeing certain colors due to color blindness or low vision. When designing documents or presentations, the author should consider adding another visual cue such as an icon or a label to accompany any color coding. If using Microsoft or Google products, using the same icons that users are familiar with is helpful. See the resources below.

- Quick video on [how to add icons for visual cues in Google Docs.](#)
- [Icons in Microsoft](#)
- [Icons in Google](#)

### Typography: Make your text readable and legible.

To reduce the effort required for your readers to process and understand the information you present as text, you should be mindful of both readability and legibility.

**Readability** refers to the way words and blocks of text are arranged on the page, including the spacing between lines of text and how text is aligned.

**Legibility** refers to how well individual characters can be distinguished from each other, including the selected fonts and any styling you apply to them.

- [Readability and Legibility Examples](#)
- [Postlight Reader Clutter and Typography Corrector for Websites](#)
- [Just Read Clutter and Typography Corrector for Websites](#)
- [Typography support for Google fonts for accessibility](#)
- [Typography support for Microsoft fonts for accessibility](#)

## Operable (O)

Provide a clear structure with heading styles.

Organize your content into sections that start with descriptive headings to help with understanding and improve navigation for everyone. Break up a long document with section headings to make it easier to scan and more inviting to readers (including readers using screen-reader technology). In many authoring tools, you can automatically create a table of contents or outline view from the section headings. By selecting a link in this table of contents your reader can quickly skip to any section or component (e.g., table, figure) in the document. This will save them valuable time on longer documents.

- Quick video on [how to create heading styles in Google Docs.](#)
- Quick video on [how to create heading styles in Microsoft Word.](#)
- Quick video on [how to create a table of contents in Microsoft Word.](#)
- [Purdue Video: Making Headings Accessible in Microsoft Word.](#)
- [Heading Styles and Table of Contents in Google.](#)
- [Table of Contents in Microsoft.](#)
- [Heading Styles in Microsoft video and text instructions.](#)
- [OCR Video: Heading Structure](#)

### Create descriptive links.

On most screen readers, you can use a keyboard shortcut or touch gesture to bring up a list of the links within a webpage, document, or presentation. It may be difficult for your readers to determine their desired destination if every item on the list of links reads as “click here” or “learn more.” The linked text should be descriptive and indicate what will happen when you select the link.

- Quick video on [creating descriptive hyperlinks in Microsoft Word](#).
- [Purdue video: Making Web Links Accessible in Microsoft Word](#)
- [Creating accessible links in Microsoft video and text instructions](#).
- [OCR Video: Individualizing links](#).

### Check for keyboard accessibility.

The test for keyboard accessibility begins with a simple keyboard shortcut. Press Tab to navigate the interactive elements (form fields or hyperlinks) in the web page or PDF. Press Shift and Tab to navigate in the opposite direction. As you navigate using the keyboard, you should be able to track which element has focus (as indicated by a border or other styling). Make sure that the focus moves around the content in a logical manner. If keyboard accessibility is not supported, consider a different resource that provides equivalent access.

- Quick video [introduction to how to check for accessibility in Adobe PDF](#).
- [Windows keyboard shortcuts for accessibility](#).
- [Windows keyboard shortcut sticker for laptop on Amazon](#).
- [Google keyboard shortcuts for accessibility](#).
- [Google keyboard shortcut sticker for laptop on Amazon](#).
- [MacBook keyboard shortcuts for accessibility](#).
- [MacBook keyboard shortcut sticker for laptop on Amazon](#).

### Avoid content that flashes.

While flashing or moving images or text may look neat when presenting, these features can distract from the rest of the content. It can also be difficult for those who have visual impairments. For some, flashing content can trigger a seizure that requires some time off before they can return to the content. For these reasons, you should avoid

animations and other digital images with rapidly flashing or moving content. Anything that flashes more than three times per minute can lead to the onset of a seizure.

- [Epilepsy Foundation: Reflex epilepsy and triggers](#)

## Understandable (U)

### Provide clear directions.

When giving directions, make sure you provide clear directions and have a fellow colleague or person with disabilities review the directions to make sure they don't rely solely on sensory characteristics such as color, shape, position, or size. Not all readers may be able to perceive these characteristics; thus, the directions may not make sense. For example, a person who is blind, colorblind, or has a visual impairment may be unable to follow instructions that state *“Complete the task after the yellow umbrella.”*

- [OCR Video: Logical Reading Order Video](#)
- [Purdue Video: Touch Up Reading Order in Adobe](#)

### Aim for consistency.

Be consistent in structure and format for readers to easily follow. Consistency can also aid usability. One example of a convention that is familiar to most audiences – whether in a document, presentation, or on the web – is the use of underlining to indicate hyperlinked content. Underlining content that is not meant to be a hyperlink (or vice versa, removing the underline from hyperlinks) may prove confusing. Consider a “how to use this resource” section if yours is unique.

Color can also be a way to visualize content in addition to icons, images, text, or hyperlinks. Below are a few resources dedicated to how color can affect your content and impact your structure or format.

- [OCR Video: Use of Color Alone to Convey Information](#)
- [OCR Video: Color Contrast](#)

## Presenting Data

Try to avoid tables if possible and present your data in another way. If you do have a table, use simple table structure for data and specify column header information. Ensure that the tables do not contain merged cells or nested tables. Screen readers keep track of the user's location in a table by counting table cells, so also make sure there are not blank cells that may mislead someone using a screen reader.

- [Purdue Video: Making Tables More Accessible in Adobe](#)
- [Creating accessible tables in Microsoft.](#)
- [OCR Video: Creating Accessible Tables.](#)

### Use plain language.

Use language that is appropriate for the reading level of your audience to make the content easier to understand. There are links in the resources below to help you identify the reading level of your content. They will also suggest simpler, shorter sentences. To help readers who are new to the topic, either provide a glossary at the end or link to online definitions of unusual words or phrases. This includes jargon and idioms that may be unfamiliar to some readers. Also, expand acronyms and abbreviations the first time they are used.

- [U.S. General Services Administration \(GSA\) Plain Language Website](#)
- [Complex and Abstract Words by Nick Wright at the GSA](#)
- [Hemingway editor](#)

### Identify the language.

Identifying the language of your written content will help screen reader software to select the correct voice and pronunciation rules. This is especially important if the content includes more than one language, as listening to foreign language content with the wrong pronunciation rules can be confusing. Screen readers can "speak" various languages—as long as the content language is identified. Defining the document language also supports automated translation of content using tools like Google Translate.

- [WebAIM Document and Content Language](#)

### Provide sufficient time.

People with disabilities who rely on assistive technology may take longer than others to review the same materials. If timed performance is not essential to the goal of an activity or presentation, consider disabling the time limit or at least providing the option for your audience members that may need accommodations to get more time as needed. Extra wait time may be needed when there are polls or collaboration on documents or digital whiteboards during an activity or virtual presentation.

In the event that a presenter is out of time, it is always best practice to have resources on hand that can be shared with your audience so they can return to the information later and fill in any content areas that may have been missed.

## Robust (R)

### Provide descriptive metadata.

Metadata is data or information within or about other data. Document metadata is information attached to a text-based file that may not be visible on the face of the document. This also includes supporting elements such as graphic images, photographs, tables, and charts, each of which can have its own metadata. Document metadata in Microsoft Word, for example, includes the file size, date of document creation, the names of the author and most recent modifier, the dates of any changes, and the total edit time.

Having the ability to filter through that metadata makes it much easier for someone to locate a specific document or other data asset in a variety of different ways. It is also important to label and organize files that are understandable and clear to the reader. Do not use special characters, always use lowercase, and don't use spaces or underscores in file names.

- [Accessible File Names \(Gillen, 2019\)](#)

### Perform an accessibility check.

Even the best accessibility-checking tools have their limitations due to the subjective nature of many accessibility techniques. For example, an automated check may reveal that an image has alternative text, but it will not indicate whether the alternative text accurately describes the content of the image. An accessibility check can help you catch some of the most common accessibility problems.

- Quick video on [how to add the Accessibility tab in Google.](#)
- Quick video on [how to run the Accessibility Checker in Word.](#)
- Quick video on [how to run the Accessibility Checker in PowerPoint.](#)
- [Accessibility checks from Microsoft in video and text descriptions.](#)
- [Accessibility checks across Google Workspace products by program and browser.](#)

### Test for accessibility with people.

Prior to sharing content, it is important to access it on multiple devices (e.g., Apple, Android, tablet, laptop, smartphone) or across various users to identify any barriers that may exist. Something that may have worked well on a computer may not be as easy to

use when accessed on a tablet with only touch gestures. You can also work with others with disabilities who use assistive technology to review your content and report back on any accessibility problems.

See below a list of additional web-based services that will help support you in checking documents or presentations.

- [WAVE Accessibility Checker by WebAIM \(Web Accessibility in Mind\)](#)
- [Importance of Manual testing for Digital Accessibility](#)
- [OCR Video: Logical Reading Order](#)