# Digital Accessibility: Slides

This document was created in consultation with the Digital Information Accessibility Coordinator in the Office for Institutional Equity (OIE), and in consultation with Information Technology Services. The guidance here is derived from the Web Content Accessibility Guidelines 2.0 AA (WCAG 2.0 AA), an international standard for accessibility, and from accessibility best practices which we have considered for designing accessible and engaging learning experiences.

## Introduction

The University of Michigan is committed to creating an equitable, inclusive and welcoming environment for all stakeholders. The [Americans with Disabilities Act](#) requires all State governments, including institutions of higher education, to give people with disabilities an equal opportunity to benefit from all of their programs, services, and activities. By creating digitally accessible slides, you are not only following the law, you are also designing better presentations for your intended audience.

Your slide decks should be easy to view and comprehend, in particular because each slide is usually on display for a short period of time. Too frequently, a presenter's spoken word competes with a slide for the audience's attention. The slide deck should serve as an outline of your talking points and highlight the most relevant information rather than serve as your script.

Creating accessible slide presentations is straightforward and easier than you might think. When you create a presentation, follow the guidelines below to make them more readable by everyone, including people with invisible disabilities (such as dyslexia, low vision, and learning disabilities). For the purposes of this guide, slides have been broken into seven distinct components. At the end, you will find resources to test your deck for accessibility and further your knowledge of this subject area.

## Overview

1. For a good overview of accessible slides, watch the one minute video, [Accessible Slides: Start to Finish](#).

## Slide Formatting

1. Use predefined layout templates because they are critical for people who use adaptive technologies to read the content. Predefined layouts will ensure a logical reading order.
    a. Note: If you are using PowerPoint and want to change predefined layouts, you can adjust the reading order using the Selection Pane, accessed from the Arrange tab in the Home section of the top ribbon.
2. Each slide should be considered a different topic and should have a unique title, see the Titles and Headlines section below.
3. Try to keep any list to two, three, or four items.
4. Insert enough blank space between the slide's elements to differentiate them.
5. Individual slides should typically have no more than two different fonts/typefaces (e.g., one font for a title, and one for bullet/paragraph text). See Fonts section below for more information.

## Titles and Headlines

1. Each slide should have **unique** slide title so that users navigating with Assistive Technology can follow along equitably. Title each slide in a way that accurately describes the topic that will be covered, e.g., "Development Journey Overview" compared to "Development Journey" so that your audience understands the topic.
2. If you must use two or more slides for the same topic, use language that reflects the continuation on the second slide, e.g., Development Journey Overview continued or Development Journey Overview (2 of 3).
3. Keep your title or headline to 1 or 2 lines max.
4. If you are not using predefined layouts, you must use the Selection Pane to make the title of your PowerPoint slide into a Title element.
5. If you have a full page image in your slide, you should still include a title even if it is offscreen, visually hidden behind the image, or marked as non-visible. This enables individuals with Assistive Technology to navigate the slides.

## Slide Text

1. Use only necessary or essential information.  Your slide should highlight the most important information and should not serve as your notes.
2. Use key words instead of complete sentences, when possible.
3. Use clear and concise language. Avoid the use of jargon, acronyms, or field-specific language, without defining those terms first.

## Images, Graphics and Other Visual Elements

1. Fit elements/components within the predefined layout templates.
2. If the visual component is integral, describe it using using alternative text. Caption and transcribe all videos, so that those with low vision can access the media. Alternative text is a text equivalent to an image that provides accessibility for people who are blind, low vision, or who have learning or cognitive disabilities.
   a. To embed [alternative text in images in PowerPoint](#).
   b. To embed [alternative text in images in Google Slides](#).
   c. If you are new to alternative text, use this [Alternative Text guide from WebAIM](#) to learn more about composing alt text.
3. When use tables to present data, include the header row within the table because screen readers automatically read the first row. Add a table caption and summary to benefit everyone. Avoid using images of tables.
4. Avoid using text in images as the sole method to convey important information. If you must use an image with text in it, repeat that text in the presentation.
5. As you are presenting slides, try to describe your visuals out loud. If you catch yourself using phrasing such as "as you can see here," try to provide a little bit more verbal context to your audience, such as "This pie chart shows that patient satisfaction has risen from 35 to 40 percent in 2017-18 Fiscal Year."

## Fonts: Select fonts that can be easily read and seen by your audience.

1. Use a sans-serif typeface such as Helvetica, Courier, Arial, Verdana. Serifs have lower legibility due to decorative stroke/embellishment on the typeface.
2. The use of serif font in slide titles is OK but not preferred.
3. To emphasize words, either highlight them in bold or increase the font size. Avoid italics because they are difficult to read.
4. Take into consideration the size of the venue where you will present your slide presentation. The larger the room, the larger the fonts should be. As a general rule of thumb, consider using the following basic standards for a small to medium sized presentation space.

| Format | Size (pt) |
|---|---|
| Slide Title | 28 or more |
| Headline | 28 or more |
| Body | 18 - 24 |
| Reference | 12 - 14 |

Recommended font sizes for each style/element format.

## Colors and Contrast

1. Select colors and shades of color that work for everyone, being mindful of audience members with low vision, learning disabilities, and color vision deficiency.
   a. Note: 1 in 12 men and 1 in 200 women have color vision deficiency.
2. Provide a high color contrast between the background and the foreground. Choose either dark type against a light background, or light type against a dark background. In PowerPoint, one can check the effectiveness of color contrast by switching the slide to grayscale.
   a. Note: this is especially important when presenting as different projectors may slightly saturate colors.
   b. For the background color, avoid hot colors such as red, orange, or yellow.
3. Avoid backgrounds with decorations that can be distracting.

## Descriptive Hyperlinks

Use descriptive hyperlink link text that clearly and accurately conveys the destination. Those who use assistive technology rely on accurate hyperlink titles. If possible, include the full title of a destination page or text that describes the link instead of using "Click here" (e.g., For more information on this topic, refer to Make your PowerPoint Presentations Accessible to People with Disabilities). Additionally, provide unique link text for each link on a slide (e.g., do not have two instances of link text stating "PowerPoint accessibility").

## Test Accessibility of Your Slides

There are different ways to test the accessibility of your slide deck:

1. Test Accessibility using PowerPoint.
   a. Note: PowerPoint offers a wide variety of accessibility testing and remediation features.
2. Google Slides Testing for Accessibility using Google Slides.
   a. Note: Google Slides offers limited testing features.
3. To request further support at the University of Michigan, you can reach out to accessibility@umich.edu to contact accessibility specialists in the Office for Institutional Equity (OIE) and Information Technology Services (ITS).


## References and Useful Resources and Tools

- Accessibility U, University of Minnesota
  - Accessible Slides Start to Finish Playlist (10 videos)
- ADA National Network
- Amara Subtitle Editor
- Alley, Michael. *The Craft of Scientific Presentations: Critical Steps to Succeed and Critical Errors to Avoid.* Springer, 2013.
- Colorblind Web Page Filter
- Make your PowerPoint presentations accessible to people with disabilities, Microsoft Office Support
- MSU Web Accessibility
- NVDA free screen reader application (Windows-based)
- UM DyslexiaHelp
  - Fonts for Dyslexia
- WebAIM Color Contrast Checker
- WebAIM Alt Text (with Quiz)