

Accessibility Tips for Content with Text, Images and Videos

Structure

1. **Table of Contents:** provide a table of contents, especially for long documents or presentations.
 - a. **In PowerPoint:**
 - i. Use the pre-defined slide layouts because they are already correctly formatted to be read by a screenreader.
 - ii. Make sure each slide has a unique title.
 - iii. Get a table of contents by going to Print > Settings > and changing the print layout to "Outline".
 - b. **In Word:**
 - i. Use the Styles tool to create headers that screenreaders use for navigation.
 - ii. If you have created headers using the Styles tool you can create a table of contents automatically using the Table of Contents tool on the Reference tab.
 - c. **In BbLearn:**
 - i. Use the Style tool to create subheadings.
2. **Lists:** use numbers or bullets
 - a. Use commonly recognized bullets (like circles, squares or dashes) and avoid unusual symbols or images (like smiley faces, unusual math or science symbols or characters in a special font).
 - b. Number lists in order and use a different numbering system for sub-lists (like a,b,c or i, ii, iii) so the screenreader can tell the difference between the main list and the sub-list.
3. **Text position:** use true columns or tables instead of the Tab key to position text.
 - a. Note: numbered lists are less cumbersome for screenreaders than tables, so stick to those if a table is not necessary.
 - b. Use the Column option in Word (Page Layout tab > Page Set-Up > Columns).
 - c. Use the slide layout options to create columns in PowerPoint.
 - d. For tables:
 - i. Save tables for data and information that needs to be in a table format to be understandable.
 - ii. Use the table style tool to turn row and column headers into true headers that screenreaders recognize. Otherwise, the user would have to memorize the headers to understand the table!
4. **Spacing:** improve readability by keeping the document visually simple
 - a. A small space between long paragraphs of text is particularly important.
 - b. Don't crowd bullets on slides.

- c. Don't shrink images too far down just to get them to fit on a page. Try cropping the image instead, or just use another page!
5. **Avoid unnecessary blanks:** keep in mind that screenreaders "read" blank lines, spaces and tabs.
 - a. Use the Page Break command to start new pages instead of just hitting Return/Enter or Tab multiple times to move to the next page.
 - b. Remove extra blank lines at the end of the document so the screenreader stops there.

Text

1. **Font size:**
 - a. Usually 12 points or more for written text and 24 points or more on slides that are being displayed on a screen. Text on printed slides can be the same size as documents.
 - b. Show students how to use Ctrl and the plus (+) or minus (-) keys to zoom in and out on the screen (Firefox and Chrome browsers).
2. **Use sans-serif fonts** (fonts without small projecting marks called "serifs" at the end of strokes).
 - a. Sans-serif font examples: Calibri, Arial, Verdana
 - b. Serif font examples: Times New Roman, Century Schoolbook, Courier
 - c. Avoid fancy or unusual fonts because they may be hard to read and/or they may not be recognized by screenreaders.
3. **Text appearance:** keep it visually clean.
 - a. Don't use too many types of emphasis in your text: different fonts, different colors, bolding, italics, highlighting, words in all caps, different colors, etc.
 - b. Do not use bolding, italics or color as the *only* ways to emphasize specific words because they are cumbersome for screenreaders to read and slow them down. Use asterisks, all caps, etc. instead. (More about color below.)
 - c. Save underlining for hyperlinks, if possible, unless it's unavoidable.
 - d. Don't mix more than 2-3 font types in a document or presentation.
4. **Hyperlinks:**
 - a. Use meaningful text for hyperlinks, not "Click here." Use the website title/subject or a file name for the link text. Example: "Visit [the GVTC website](#) for more".
 - b. Don't use the actual link address without adding a text hyperlink first, because screenreaders will read the link address letter by letter ("w-w-w-dot-g-v-t-c-dot-o-r-g"). If the file is going to be printed, include both the text and the link address so the latter can be typed in by someone who only has the printed copy. Example: "Visit [the GVTC website](#) (www.gvtc.org/bblearn) for more"

- c. If the link opens in a new window, warn visually impaired users to look for the new tab or window by adding “opens in a new tab or window” after the link.

5. **Use simple language.**

- a. Avoid run-on sentences.
- b. Remember that screen readers have mechanical voices that may not pause in the right place in a sentence or vary the tone in the same way that human voices do.

Images

1. Add alternative text, better known as “alt text”, to all images so the user understands the purpose of the image.
2. Keep the alt text short but descriptive enough to tell the user what he or she cannot see.
3. If the image requires a longer explanation, add a descriptive caption underneath it.
4. Alt text is not needed for decorative images that are not relevant to the content.
5. Avoid using text contained in an image as the only way to present information because screenreaders cannot read the text. Warning: most scanned documents are converted to images, so they cannot be read by a screenreader. Example: a scanned list of vocabulary words will not be visible to a visually impaired user.

Videos and Multi-Media

1. Videos must have captions OR a transcript.
2. When creating videos:
 - a. Be as descriptive as possible in your narration for visually-impaired users. Examples: “the image in the top left corner,” “the text immediately below the title,” “scroll down past X and Y”.
 - b. Briefly describe images before discussing specific parts of them. Example: “This is an image of the bones and tendons in a human wrist and hand. When examining the thumb...” Avoid generic terms like “over here” and “this item”.
 - c. Move the mouse or cursor slowly enough that it can be followed by users with less than ideal vision or who cannot hear the audio.
3. Describe locations of relevant elements on the screen or in diagrams, tables, etc. Examples: “the image immediately below the title,” “the top row of the table,” “the second of four lines of the graph”.

Color

The use of color impacts all users, not just those with color deficient vision. Making your content accessible to colorblind users is almost always helpful for all other users, since it improves

readability and clarity of both text and images. Also, never forget that viewing content on a computer screen can be significantly different from viewing it in print.

Approximately 8% of males and 0.5% of females are colorblind, with the vast majority being of Caucasian descent. Colorblind users *can* see color, just not the full spectrum, and the remaining colors they can see are also impacted to some degree by the condition. There is also a wide range of colorblindness, from slight to absolute.

- “Red-green colorblindness” is a general term for several conditions that usually result in reds, oranges, yellows and greens all appearing various shades of brown or tan. The vast majority of the colorblind have this type of colorblindness.
 - “Blue-yellow colorblindness” usually makes blues and greens appear similar, and yellow may appear violet.
1. Don't use color as the only way to convey meaning. Provide another way to distinguish the information. Examples: use asterisks or all caps to emphasize words, line variations for graphs (like dashes and dotted lines) and location for graphs and images (examples: “top graph line”, “the ___ located on the left side of the image”).
 2. There must be good contrast between the colors of the background and the text, or within a graph or image. Imagine printing the item in black and white- would any of the colors appear to be the same shade of gray?
 3. There must be good contrast between the darkness and lightness of the different colors (known as their *value*). Examples: pastel blue, pastel green and pastel purple usually very similar values and should not be used together, and the same is true of dark blue, dark green and dark purple.
 4. These color combinations should generally be avoided, if possible:
 - a. red, orange and yellow (in any combination)
 - b. red and brown
 - c. green and red/orange/yellow
 - d. green and brown
 - e. green and blue
 - f. green and gray
 - g. purple and blue
 - h. purple and gray

Resources

BbLearn Accessibility Features for Instructors https://en-us.help.blackboard.com/Learn/9.1_2014_04/Instructor/040_In_Your_Course/050_Accessibility/000_Accessibility_Features

BbLearn Accessibility Features for Students: https://en-us.help.blackboard.com/Learn/9.1_2014_04/Student/040_In_Your_Course/040_Accessibility

**Make all students aware of this information; do not wait for a student to ask.

WebAIM: Web Accessibility in Mind <http://webaim.org/articles/>

Word Tips: <http://webaim.org/techniques/word/>

PowerPoint Tips: <http://webaim.org/techniques/powerpoint/>

Accessibility and Usability at Penn State (Microsoft Office Word, PowerPoint and Excel): <http://accessibility.psu.edu/microsoftoffice/>

AbilityNet- Producing Accessible Materials for Print and Online: <https://www.abilitynet.org.uk/quality/documents/StandardofAccessibility.pdf>

Diagram Center: <http://diagramcenter.org/> (how to work with complex images when 'alt' text is not enough)

Colblindor: <http://www.color-blindness.com/>

Coblis Colorblindness Simulator for images: <http://www.color-blindness.com/coblis-color-blindness-simulator/>

Color Oracle Colorblindness Simulator for entire computer screen: <http://colororacle.org/>