Designing Accessible Word Documents

Supplemental Course Handout

This handout provides limited supplemental information and tips. Please also refer to the reference materials available from the [Accessible Document Learning Package](#).

Contents

Structure Your Document (New section)

A structured document identifies each piece of content by its function in the document—e.g., heading, list, table—so that adaptive software can locate content quickly and easily for the user.

Accessible Headings

Headings allow a screen reader user to jump directly to the information they need, and provide consistent visual cues to other users. Accessibility checkers often miss problems with headings, so they should be checked manually.

To be accessible, headings must be:

- Formatted using your software's built-in **heading styles**
- **Nested** logically, without skipping any heading levels

They should also be:

- **Shallowly nested**—try to make Heading 3 or 4 the lowest heading level.
- **Concise**—if a heading wraps around a line on the page, consider revising it.

In Microsoft Word, use the Navigation Pane to review the heading structure of your document, and scan the document for "fake headings" that don't appear in the Navigation Pane.

Accessible Tables

Accessible tables:

- Present data in a logical, tabular format
- Have the same number of rows and columns throughout
- Include a header row with a label for every column in the table
- Highlight the headers, columns, and rows so they're easy to see
- Often include a caption with a summary above the table

They do not:

- Have split or merged cells
- Include substantial paragraphs of text
- Embed document headings within the table
- Include one table inside another table

An accessible table includes these "hidden" features to aid adaptive software:

- No page breaks allowed within a row, so cell contents stay intact

- No "text wrapping," so the table can be detected
- "Repeat header rows," to identify the header row
- Alternative text to describe the structure of the table

Avoid Layout Tables

A "layout table" arranges text and objects on a page for visual effect, and often has invisible borders.

Try to eliminate layout tables from your documents.

If you absolutely cannot meet a document's requirements without a layout table:

- Use a simple table with no split or merged cells, such as a table of two or four cells only
- Ensure the content in the table has a logical reading order when read from left to right, top to bottom
- Add the alt text "layout table" in the Description field
- Never place one layout table inside another layout table

Write Great Alt Text for Images

Alternative text or "alt text" is recited by screen readers in place of images, video and other objects, allowing the **content and function** of the object to be understood by people with visual or cognitive disabilities.

When an image has no alt text, the reader won't know if the image includes important information or not.

- To add alt text, right-click on an image and select Edit Alt Text.
- For every image, either include alt text or mark it as decorative.
- Review all the alt text in the document—watch out for computer-generated descriptions, or places where the filename appears as the alt text.
- If you see a Title field in the alt text task pane, don't use it! The Title field doesn't get included when you convert the document to a PDF.
- If an image's alt text would be redundant because the same information is included in a caption or adjacent body text, you can mark the image decorative.

Short and Precise

Alt text is normally **short,** usually from a few words to a sentence or two. "Three penguins" might be sufficient for the image above, depending on the context.

Imagine that you're reading a document over the phone to someone. What would you say to convey the **essential meaning** of the image?

A screen reader will inform the user that an image is present, so you don't have to write "image of". You might state what type of image it is—"photograph of three penguins" or "profile picture of Jane Doe"— if that is helpful to comprehending the content of the document.

Context-Appropriate

The same image, used in different documents, will have different alt text depending on its context.

In a business or academic document, it's typical to use brief alt text and limit description of the appearance to aspects that convey why the image was included.

In social media, it's common to describe an image in greater detail, including its visual appearance.

Any of these might be appropriate alt text for the penguin image, depending on the context:

- Three penguins
- Three Emperor penguins showing the characteristic plumage of a sharply-defined white and black tuxedo pattern on the body, pale yellow on the upper breast and bright yellow ear patches.
- Three penguins in a circle on an ice floe against a bright blue sky, looking like tuxedoed people chatting at a formal garden party.

Describe Function

When an image is used as a clickable hyperlink or action button, the alt text functions as the link text.

When the image is a simple icon, describe the function of the image first and its appearance second, if at all.

When linking from photos and other images from your document, keep in mind that people may not be able to easily see that the image is also a link. Consider using linked text instead, perhaps in an image caption.

Be specific about the target: e.g., name the website or document that will load, or the audio or video that will play.

A screen reader will say something like "image, link" followed by your alt text, so you don't have to include "this is a link to."

- "Go to next page" or even just "next page" ▶
- Listen to Beethoven's Ninth Symphony 🔊

Replace Images of Text with Real Text

Never use an image to display text if you can re-create the same content using real text instead. Real text is inherently more accessible not only to adaptive software but to people who must magnify the screen to read.

For text-heavy visual diagrams, such as a process workflow, interpret the diagram as text using headings, lists and tables, and make this the "official" representation of the process. It's okay to include a visual diagram as a supplement, but the image should not convey any information that isn't clear in the text-only representation.

Repeat Text, where an image of text is unavoidable

If you must use an image with text in it, your alt text must include **all the text**, as well as whatever else you need to make the image understood.
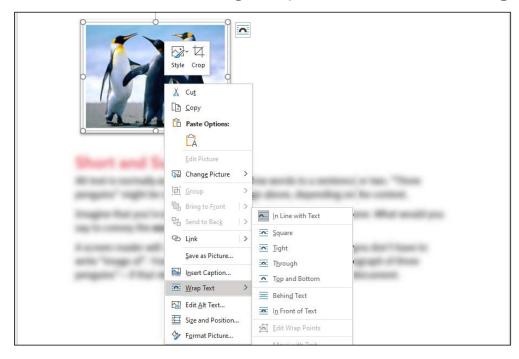
- Liferay logo with tag line: Enterprise. Open Source. For Life.

Ensure Images are Detectable

In Word, only images that are formatted **"in line with text"** are detectable to screen reader software when a reader has direct access to the original document.

Images that are not inline (or are "floating") may be detectable in a PDF created from the Word document, but if using them you must **validate the reading order** of the PDF.

Write Great Link Text

People using screen reader software might come across the links in your document naturally as they read, or they might jump directly from one link to another, scanning for the one they need without reading. Links must work well in both these situations!

- How to Add a Hyperlink in a Microsoft Word Document (getproofed.com)

Make Links Easy to See & Identify

Make links at least **five characters long,** so that people can spot them and click on them easily.

Eliminate underlining to emphasize text, as this could be confused for a hyperlink. Use bold or italics instead.

Use Display Text

Within a paragraph, hide a raw URL behind English (or French, etc.) text. Otherwise, a reader might hear "h t t p s colon slash slash," etc., and not remember what the sentence is about by the time they get to the end of the link!

You can include a short URL in a sentence if it makes sense to read it aloud: "York's main website is located at yorku.ca."

To display a raw URL for people using a printout, consider including it in a list below the paragraph, or as a footnote to the linked text.

- Recite the sentence aloud, including the linked text. Does it make sense?

Be Clear & Include Relevant Info

Linked text must plainly state where the link will take the user. Use the title of the web page or document you are linking to as the display text if you can.

Never use "click here," "here," or similar vague link text.

Include all relevant information from the sentence in the link.

When a link leads to another document, add the document type in brackets (PDF) at the end, and include it in the link. You don't have to include a file type for links to websites.

- Recite the linked text on its own. Is it clear where it will go, even without hearing the rest of the sentence? Does it include the relevant information from the sentence?

Unique to Target

Linked text should be unique to its target, meaning if you use the same link text twice in the same document, both links should go to the same place, not to two different places. Conversely, if you link to the same location more than once in your document, try to use the same link text each time.

Examples

Here are some examples of poor link text compared to improved link text. (All links in these examples are fake.)

Issue	Poor Link	Improved Link
Exposed URL	All are welcome to attend the Designing Accessible Word Documents class. Go to https://www.heyu.edu/fakelink/12jeRt8345k to register.	All are welcome to register for Designing Accessible Word Documents.
Vague	Click here to register for the class.	Register for Designing Accessible Word Documents.
Document Type Missing	… as shown in the York University 2019 Employment Equity Report.	… as shown in the York University 2019 Employment Equity Report (PDF).
Relevant Information Missing	Download the Designing Accessible Word Documents course handout (PDF).	Download the Designing Accessible Word Documents course handout (PDF).
Repeated	- Emperor penguins are the tallest and heaviest living species of penguin (learn more) - Gentoo penguins belong to the group of brush-tailed penguins and have a loud trumpeting call (learn more) - Rockhopper penguins have a distinctive facial crest (learn more).	- Emperor penguins are the tallest and heaviest living species of penguin. - Gentoo penguins belong to the group of brush-tailed penguins. - Rockhopper penguins have a distinctive facial crest.

Create Accessible PDFs

Word to PDF Workflow

When you follow the recommendations for accessible Word documents, you can make an accessible PDF by saving your file in the PDF file type without working in the PDF directly. Think of PDF as a publication format.

1. Make the source document as accessible as possible in Word.

2. Save the Word document as a PDF in a way that preserves the accessibility features (see steps below).

3. If you become aware of issues in a PDF that can be fixed in the Word document, fix it in Word and re-generate the PDF.

4. If you have only a PDF, convert it to Word to create a new source document. (Use File > Export in Adobe Acrobat Pro, or try an online tool like the Adobe Convert PDF to Word tool.)

Never Print to PDF!

Never use the Print dialogue window to select a "PDF Printer" as this creates an inaccessible PDF on any computer.

Steps for Windows Users

Microsoft Word for Windows users can use the Save dialogue to create an accessible PDF. This method creates a good quality PDF.

1. Click the **File > Save As** (or Save a Copy)

2. Select where you want to save the file

3. Change the **Save as type** to **PDF**

4. Click the **Options** button

5. Ensure that **Document structure tags for accessibility** is selected

6. Also select **Create bookmarks from Word headings**

7. Click OK and save the file.

Steps for Mac Users

You can create an accessible PDF from recent versions of Word for Mac OS in Microsoft 365. If you can't find the accessibility option in your version of Word for Mac, open the file in Word Online and save the PDF from your web browser instead, as shown below.

1. Select **File** > **Save As**

2. Type the file name in the **Save As** dialogue and choose where you want the file to be saved.

3. Use the **File Format** drop down box to select PDF.

4. Select the radio button **Best for electronic distribution and accessibility (uses Microsoft online service)**.

5. Click **Save**

Steps for Word in Office Online

1. Save the source file to your OneDrive or a Teams site

2. Open the file in your browser (Word Online)

3. Click on **File > Save As**

4. Click **Download as PDF** and wait while the PDF is generated

5. Click the **Download** button when it appears

6. The file will be downloaded to your default download folder and may also open up in your default PDF reader.

Recommended PDF Software

When you compromise on the recommendations for accessible Word documents, such as including images that are not "inline with text," you must open the PDF with software like Adobe Acrobat Pro to recheck accessibility.

Talent Acquisition & Development doesn't provide training and support for PDF editing, but we have listed some learning resources on the [Accessible Documents resource page](), and have included some additional tips here.

*   We recommend using Adobe Acrobat Professional for creating PDFs and checking accessibility.

*   The PDF-XChange Editor is not capable of creating an accessible PDF, although version 9 now has an accessibility check feature you can use to check

accessibility on a pre-existing PDF. See our statement on PDF-XChange Editor & Accessibility (March 1, 2021).

Adobe Acrobat Pro is available for free from myapps.yorku.ca, York's virtual software platform. Use File > Create > Create PDF from File, or start from the Create task pane.

- Don't edit text directly in an accessible PDF, as this can alter the underlying tagging of the content. Make content changes in the source document and re-create the PDF instead.

- Avoid adjusting the reading order in a PDF. In most cases it's better to fix reading order issues in the source software, even if it means re-imagining the layout of your document.
    - o To properly adjust reading order in a PDF, you must move the tagged content in both the Order panel and the Tags panel.
    - o Reading order for adaptive software for blind users is determined by the **Tags panel,** which is challenging to use.
    - o The Order panel in PDF editors controls the reading order for the "read aloud" feature built into other software. It does not help blind users.

Additional Resources

Here are links to some other resources that you might find useful.

- Strip Formatting from a Word Document
- Set the Reading Order of a PowerPoint Slide
- Using the Reading Order Tool in Adobe Acrobat Pro
- Master Microsoft Word with Styles (YouTube video, Nov 18, 2020)