

Using Word documents and/or PDFs

Do you distribute information to students using Microsoft Word documents or PDFs?

Everyone benefits from organized, clear, concise and well laid-out assignments, syllabi and handouts. These tips can help you make your Word documents and PDFs accessible to the greatest number of students.

What makes a Word document accessible?

An accessible Word document is one that can be followed and understood by any student. Additionally, it can be read by a screen reader, has effective alternative text (Alt Text) and contains captioning or transcripts for any embedded audio or video.

Some students use assistive technology to adapt information into a usable format for their learning needs. Some examples of assistive technology are:

Screen readers: These read aloud information on a computer screen such as written text, or the description of an image provided through alternative text or Alt Text.

Screen enhancement software: This allows users to magnify the computer screen or change the contrast to make the content easier to see.

What makes a PDF accessible?

PDF stands for portable file document, a format that looks the same on the screen as it does in print, regardless of the software program used to create it or on which computer system it is being

viewed. The free Adobe Reader software is used to view and print PDFs.

To create an accessible PDF, the first step is to start by creating an accessible Word document. Step 2 is to convert the Word document to a properly tagged PDF, and Step 3 is to check the PDF's accessibility and fix any problems.

Step 1: Create an accessible Word document

General tips

- Text should be at least 12-point type; fonts should be simple and sans serif (e.g. Arial, Book Antiqua, Comic Sans MS, Georgia, Courier New, Tahoma, Times New Roman, Trebuchet MS or Verdana).
- Maintain a high contrast; black text on a white background, or white text on a black background are easiest to read.
- If you use colours, select those that are highly contrasting.
- Make sure the content can still be interpreted in grey-scale if someone prints the document in black and white.

- Use a bold font to show emphasis. Italics or upper-case letters is not recommended.
- Avoid using the “Enter” or “Return” key to create space between paragraphs. To change the spacing, select the paragraphs and change their spacing-before and spacing-after settings. Newer editions of Word add a blank line after each paragraph, and insert space before headings by default, so this may not be required.
- Avoid using Word text boxes. Screen readers cannot see inside them.
- Use hyperlinks, and insert a descriptive title for the link rather than a long web address (see resource below).
- Avoid using watermarks or other background images that obscure the text. If the information is important, include it elsewhere in the document.

Use Word styles and headings

Visual cues, such as headings, make it easier for all readers to use your document. Also, screen readers can interpret Word styles and headings when they are applied properly, and help the user navigate your document.

- Design your document by using Word’s “Styles” menu, rather than by applying formats to the text directly. For example, if you enlarge a font and make it bold, a screen reader will not see it as a heading; but if you apply a heading style to the text, the screen reader will recognize it.

- Use “Styles” to create a logical hierarchy that makes your document easy to navigate: “Title”, “Heading 1”, “Heading 2”, etc.

Tables, columns and lists

- Avoid nested tables, merged or split cells inside tables.
- Ensure that the tab order within a table is logical. To test the navigation, select the first cell of the table, then press the “Tab” key repeatedly to ensure that the focus moves across the row and then down to the first cell of the next row.
- Do not use tabs or the spacebar to create columns of text with space between them. To create multi-column documents, always use Word’s “Columns” layout feature.

Add Alt Text to images

Alternative text (Alt Text) describes an image so that the user’s assistive technology may convey what information is being provided. It appears when you move your cursor over a picture or object. In situations where the reader cannot see the image, Alt Text ensures that no information is lost. For websites, documents and lecture presentations to be accessible, Alt Text must be assigned to all photos, images, multimedia, graphs, charts, text boxes, ClipArt, SmartArt, AutoShapes, etc.

Effective Alt Text:

- Communicates the purpose of the image accurately and succinctly.
- Contains a short description of the image that is important to the user’s

understanding of the information conveyed.

- Does **not** repeat the text of an adjacent caption. Screen readers read both the caption and the Alt Text, so avoid having the same details in both.
- Does **not** contain the words "Image of" at the start of the Alt Text. Screen readers tell the user that there is an image and then read the Alt Text.
- Does indicate "Screen shot of..." if it is an image taken from a computer screen.
- Does indicate "Photo of..." if it is a photo.
- Requires no text if an image is purely decorative. Simply provide two quotation marks (" ") as the Alt Text.
- Uses punctuation for full sentences.

How to add Alt Text

Remember, you must provide Alt Text for all graphics, images and multimedia content.

1. Right click on the image.
(Control+click if using a Mac.)
2. Depending on the edition of Word you're using, select "**Size**", "**Format**" or "**Format picture**". For tables, click "**Table properties**".
3. Select "**Alt Text**" and type in the text that describes the image (e.g. "Logo of Council of Ontario Universities"). Use clear but concise descriptions.

There is no option for adding Alt Text to images, charts or graphs using Word for Mac 2004 or 2008.

Step 2: Convert to PDF

Once you have prepared your Word document with accessibility in mind, you are ready to convert it to a PDF. For assistive technologies to be able to read it properly, the PDF must be tagged with an additional layer of information that allows the devices to determine how to navigate the file, and how to identify images, headings and paragraphs, among other items.

If you are working with Microsoft Word 2007 or 2010, this tagging will be done automatically when you save a file as PDF format. (Under "**Options**", make sure that the "**Document structure tags for accessibility**" box is checked.) However, on the Mac operating system and in earlier versions of Word, using this method will create an untagged, and therefore inaccessible PDF. In this case, to create a tagged PDF you will need to use the plug-in that is available within Word if Adobe Acrobat is installed:

1. In the top toolbar, click the "**Acrobat**" tab.
2. Select "**Create PDF**".
3. In the "**Save**" box, select the "**Options**" button. Select the "**Enable Accessibility**" and "**Reflow with Tagged Adobe PDF**" options.

Name the file as desired, select a destination folder, and click "**Save**".

Step 3: Check and fix accessibility

If you have followed all of the above guidelines for creating your Word document, the resulting PDF has a basic level of accessibility. However, it is important to note that this document might not be fully accessible to all screen readers or assistive technologies; you may need to provide additional information using Adobe Acrobat software. For detailed

information about creating accessible PDFs, see the [Adobe Acrobat Accessibility Training Resources](#).

Recent versions of Word (after 2010) have an Accessibility Checker that operates much as a spellchecker does. It can be found under “**File**”, “**Info**”, “**Check for Issues**”, and then “**Check Accessibility**”. It inspects your file and alerts you to issues that could make it difficult for a user with a disability to access.ⁱ

More resources:

The [WebAIM](#) (Web Accessibility in Mind) site offers more information, including [how to create accessible Microsoft Word documents](#) for PC and Mac users and [effective use of fonts](#).

The [Accessible Digital Office Documents project](#) (ADOD), part of the Inclusive Design Research Centre at OCADU, has a number of resources including step-by-step instructions on many Microsoft Office programs, including Word, Excel and PowerPoint.

Microsoft’s guide, [Create Accessible Word Documents](#), offers online video tutorials and a reference sheet that may be used offline.

California State University offers a number of online [tutorials on making accessible documents](#).

The [CNIB Clear Print Accessibility Guidelines](#) provide useful tips on print documents.

Chronicle of Higher Education blog post: [How to Create Accessible Documents](#).

To obtain this document in an alternative format, please contact:

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Web: <http://accessibilityhub.info.yorku.ca/>

ⁱMicrosoft Corporation, [Check for Accessibility Issues](#).