Making Accessible PDFs

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Background

We're making a lot of progress improving the accessibility of our website for people with disabilities. Now that the web pages are in better shape, we're expanding our focus to include other formats used on the web to convey information. Accessibility is not just about web pages; all information that is provided electronically needs to be accessible.

The PDF ("portable document format") file type is ideal for certain things that don't work as well on an HTML page. Most notably, a PDF retains its visual appearance when viewed on any kind of computer and when printed. It's also an easy way to share information because it can be downloaded from a website, sent via email, or copied to a thumb drive. However, these same aspects of PDFs—that it's a visually oriented format that is widely used because it's so easy to share—can create problems for blind and low vision people.

Not long ago, it was difficult to make PDFs work well in the screen reader software tools that many people with disabilities use. Fortunately, Adobe, Microsoft, and other companies have made strides in recent years, and it is now much easier to create accessible PDFs.

Five Keys to Creating Accessible PDFs

Here are five keys to publishing PDF documents that everyone can use.

Key #1: The PDF must be machine readable.
When you create a PDF by scanning a document, the file that's generated contains only a picture of the document, not the text. Any words in the picture are invisible to screen readers. In other words, these PDFs are 100% useless (and frustrating!) to anyone using a screen reader.

The best way to avoid this problem is to **generate the PDF from the program where the document was originally composed**, such as Microsoft Word. Always create the PDF through the "save" or "export" function, not the "print" function. If all you have to work with is a scanned image, you could try using optical character recognition software

(OCR), but you'll have to carefully review the output and fix any errors. Adobe Acrobat Pro has a built-in OCR capability.

Key #2: Use a real title in the document properties.

If there is no title in the document properties, then the screen reader tries to read out the filename one character at a time. How annoying! If you were listening to it, wouldn't you rather hear the title of the document? You can easily **set the title in Word via the File menu's Properties command.** Doing so has the added benefit of looking better in search results.

Key #3: The PDF must be properly tagged.

Tags are hidden elements in a document that provide clues to the screen reader about the document structure. For example, your document might contain a gigantic heading in 72-point, purple, bold type in a different font to indicate the start of a main section of the document. Without a tag, though, the screen reader treats it like any other text, so the person reading it doesn't know it's the start of a new section.

In Word, there are a few ways to **tag headings**. One is to use the predefined styles (Heading 1, Heading 2, etc.) Another is to set the outline level of a heading using the paragraph formatting options. You could also view the document in outline view and use the toolbar to set the heading levels.

Besides headings, it's also very important to **add alt text to images**, describing what's in the image, including any words, for people who can't see it. **Tables** are another element where a description can help someone understand how the information in the table is organized. In Word, the table properties now contain an "Alt Text" section where you can add a description.

Key #4: Make sure the reading order is correct.

When you create a tagged PDF, the software makes its best guess about what order things should appear in. For a simple document using headings, paragraphs, and simple tables, there's no problem. However, any time you use any layout features in Word – such as having text wrap around an image – there's a good chance something will be read in the wrong order. Fixing this problem requires a more advanced tool like Adobe Acrobat Pro, so the best advice is to **avoid using complex layouts** if they aren't completely necessary.

Key #5: Start with accessibility in mind.

It's important to start thinking about accessibility *before* you even create the PDF, since most accessibility requirements can be addressed in the source application (such as

Microsoft Word) before exporting to PDF. It's a lot harder to try to retrofit accessibility into an existing PDF.

Tools and Resources

Before creating your next document, make sure your software is up to date. For Microsoft Office, this means using **Office 365** or **Office 2016**.

The **Word 2016** update includes a new "Check Accessibility" tool on the Review toolbar. Always use this! You'll also find accessibility features via the context menu (e.g., right-click on an image to add the alternate text). Other Office products have similar features.

For more advanced capabilities, or to remediate an existing PDF when you can't recreate it from the source file, **Adobe Acrobat Pro** offers extensive accessibility features. Oberlin faculty and staff have access to these Adobe and Microsoft products. For licensing, installation, and training questions, contact CIT, cit@oberlin.edu.

The **Siteimprove** PDF accessibility checker identifies most major problems. In addition, through our subscription to Siteimprove you can take **online courses** about creating accessible documents. Contact the webteam for access to these tools.

The webteam has been adding accessibility-related material to our **online guide for Drupal users**, and we'll continue to add more as our knowledge of the topic expands. Let us know if you need access.

Microsoft offers several helpful web resources for content authors:

- Make your Word documents accessible to people with disabilities

- Use the Accessibility Checker to find accessibility issues

- Create accessible PDFs

- Video series about using Adobe Acrobat Pro accessibility tools (created by Microsoft for their internal staff)

Finally, in some situations it might be necessary to get **outside help** to remediate PDFs. Contact the webteam for a list of vendors who offer this service.