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MAKING DOCUMENTS ADA ACCESSIBLE

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WHAT DOES IT MEAN FOR A DOCUMENT TO BE ADA ACCESSIBLE?

The Americans with Disabilities Act of 1990 ("ADA") sets guidelines for creating documents that are easily readable by screen readers and sighted readers with low vision. Screen readers are software applications that enable people with visual impairments to use computers. They typically provide feedback to the user verbally or as a braille. Those using screen readers typically use keyboard commands to carry out tasks rather than a mouse. There is no such thing as a document is that is 100% ADA compliant or accessible by 100% screen readers because they all use different technology. However, there are things you can do to ensure that the majority of screen readers and sighted readers with low vision can read your documents. While these recommendations include the most common issues, this is not an exhaustive list.

IT ALL STARTS WITH YOUR WORD PROCESSOR

It doesn't matter if you are sharing the document as a Word file, WordPerfect file, Pages file, PDF, or another file type, setting your documents up for ADA accessibility success starts with the word processor. Common issues include: heading structure, alternative text for visuals, hyperlinks, color, and tables.

HEADING STRUCTURE

Screen readers rely on the heading structure of the document to quickly navigate through the document. The heading structure is controlled by the heading styles. The heading styles must be used in order - the top level of your outline must be heading 1, the second level of the outline must be heading 2, and so on and so forth.

Beyond setting up the heading structure, using styles to control the formatting of your documents has several benefits for you as the document author. Properly using styles results in fewer formatting frustrations, more efficient and consistent application of formatting, easy creation of tables of contents that automatically update with the click of a button, easy document navigation, and the ability to easily create PDF bookmarks based on the styles.

ALTERNATIVE TEXT FOR VISUALS

Visuals such as pictures, SmartArt graphics, shapes, groups, charts, embedded objects, ink, and videos create problems for screen readers. Any text in the visual is not read by the screen reader and is harder for low vision readers to read. Screen readers do not know what's in a visual unless alternative text is added. Use alternative text to describe the visual and include any pertinent text in it.

HYPERLINKS

People using screen readers frequently prompt the screen reader to scan for a list of hyperlinks. When the screen reader returns a list of hyperlinks, they are taken out of context. All too often, document drafters hyperlink words such as "click here." Taken out of context, it is impossible to tell where the hyperlink goes. Instead, add the hyperlink to a description of the location being linked to.

COLORS

If color is used to convey meaning, those who are color blind will miss it. While you may still want to use colors to convey meaning at a glance for other readers, be sure to include a way for color blind readers to comprehend the meaning whether you use different font formatting such bold or italics or use different icons.

Additionally, you need to ensure there is sufficient contrast between any background colors and the text overlaying it to ensure that readers with low sight can distinguish the text from the background color.

TABLES

Screen readers require a simple table structure. They track the location in the table by counting cells. Nesting cells or tables within other tables, merging cells, and splitting cells all cause problems for the screen reader. Further, blank rows and columns may cause someone using a screen reader to think there is nothing more in the

table and miss any additional content. Different border styles, cell padding, or paragraph spacing can help re-create any formatting lost when deleting empty rows and columns.

PDF

Ensuring a PDF is ADA accessible starts with the word processor and ends with creating and manipulating the PDF. Common issues with PDFs include: file properties, security, optical character recognition, color, tagging, hyperlinks, alternative text for visuals, tables, and forms.

FILE PROPERTIES

While we typically want to scrub metadata from documents before sharing them outside of our organizations, metadata can be helpful for screen readers. Screen readers rely on the title, author, subject, keywords, and language data. The key is to scrub metadata you don't want to disclose and complete the fields that screen readers rely on. The title should be the title of your document. The author should typically be the name of your firm or organization. The subject can be the same as the title or be used to provide additional information. Keywords are used when searching for documents.[1] The language should be set to the language of the document's text.

SECURITY

When locking down a PDF, be sure to leave ADA accessibility features enabled. Most PDF software has a checkbox that one checks to ensure the ADA accessibility features are enabled when locking down the PDF.

OPTICAL CHARACTER RECOGNITION

PDFs created from editing software (such as a word processor) are text searchable by default. Readers can search for text in the PDF and it will find it. When scanning paper to create a PDF, you must employ optical character recognition ("OCR") for the text to be searchable. Scanners create an image of the PDF. OCR scans the image for characters and adds a layer of searchable text behind the image. Without searchable text, screen readers cannot read the PDF.

COLOR

Just like a word processor document, if color is used to convey meaning in a PDF, those who are color blind will miss it and insufficient contrast between any background colors and the text overlaying it makes it difficult for readers with low vision to distinguish the text from the background.

TAGGING

Screen readers use tags to understand the structure of the documents. Tags are used to denote headings, text, lists, images, tables, forms, and media. The tags can be inserted automatically when creating the PDF or from your PDF manipulation software. When creating a PDF from Microsoft Word, use the Export feature on the File menu. Click on Create PDF/XPS, then click on the Options button. Under Include non-printing information, check the box next to Document structure tags for accessibility. You must use styles in your document for tags to be inserted properly.

HYPERLINKS

Just as with word processor documents, people using screen readers frequently prompt the screen reader to scan for a list of hyperlinks in PDFs. When the screen reader returns a list of hyperlinks, they are taken out of context. All too often, document drafters hyperlink words such as "click here." Taken out of context, it is impossible to tell where the hyperlink goes. Instead, add the hyperlink to a description of the location being linked to.

ALTERNATIVE TEXT FOR VISUALS

As with word processor documents, visuals such as pictures, SmartArt graphics, shapes, groups, charts, embedded objects, ink, and videos in PDFs create problems for screen readers. Any text in the visual is not read by the screen reader and is harder for low vision readers to read. Screen readers do not know what's in a visual unless alternative text is added. Use alternative text to describe the visual and include any pertinent text in it.

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[1] This is true for any computer user, not just those using assistive devices. Adding keywords to the document properties screen allows file search utilities built into Windows (Instant Search) and macOS (Spotlight), as well as third-party utilities, to make use of these keywords when returning search results. See the whitepaper on acquiring a search program or DMS for additional details on the options.

TABLES

Also, like word processor documents, screen readers require a simple table structure in PDFs. They track the location in the table by counting cells. Nesting cells or tables within other tables, merging cells, and splitting cells all cause problems for the screen reader. Further, blank rows and columns may cause someone using a screen reader to think there is nothing more in the table and miss any additional content.

Additionally, table headers must be defined in a PDF. The first row of the tab needs to include column headers. If the table does not require column headers, use tabs or indents to align your content instead of a table. In Microsoft Word, right-click in the first row of the table and select Table Properties. On the Row tab, check the box for Repeat as header row at the top of each page. When creating the PDF with tags, the first row will then automatically be tagged as the header row.

FORMS

Fillable forms need to include instructive text at the beginning of the form. Fields must have a logical reading and navigation order - requiring that the tab order to be set. All fields must have labels to the left of the fillable field, titles, and descriptions. Checkboxes and radio buttons need to be grouped with the alternative choices. Do not use multiple select menus.

REVIEW YOUR DOCUMENTS FOR ADA ACCESSIBILITY

When reviewing your documents for ADA accessibility, it helps to start with the accessibility checker feature of your word processor or PDF software, if it has that capability. Accessibility checkers won't find everything, but they are a great start. Some checkers will even help you fix the issues they find. Other issues will need to be manually fixed. Once you run the accessibility checker, you'll need to manually check for other issues.

MICROSOFT WORD

Microsoft Word's accessibility checker can be found either on the Review ribbon using the Check Accessibility button or from the File menu under the Check for Issues dropdown found on the Info page. Word's accessibility checker looks for missing alternative text for visuals, insufficient color contrast, and some table issues. It does not check for logical heading styles, meaningful hyperlink text, color as the only means of conveying information, or blank rows and columns.

HEADING STYLES

After running the accessibility checker, you must manually scan for issues with logical heading styles. Open the navigation pane (on the View ribbon, check the box to show the Navigation Pane). Paragraphs styled with heading styles appear in the navigation pane, nested under each other. Skim the list of headings for anything that appears out of place.

HYPERLINKS

Next, search for hyperlinks using the GoTo function. On the Home ribbon, click on the dropdown arrow next to the Find button and select GoTo. Under Go to what, select Field. Under Enter field name, select HYPERLINK. Use the Next button to jump from hyperlink to hyperlink in your document.

COLOR

Skim the document for any text that is not black and consider whether the color is being used to convey information.

BLANK ROWS AND COLUMNS IN TABLES

Use the GoTo function to search for tables. On the Home ribbon, click on the dropdown arrow next to the Find button and select GoTo. Under Go to what, select Table. Use the Next button to jump from table to table in your document.

ADOBE ACROBAT DC

Adobe Acrobat's accessibility checker can be found by searching the tools for "accessibility." In the accessibility pane, click on Accessibility Check to run the checker. It looks for errors with the permissions, file properties, OCR, tags, logical reading order (headings), language, titles, bookmarks, color contrast, tags, form field descriptions, and alternate text. While it catches significantly more than Microsoft Word, it may miss merged or split cells, meaningful hyperlinks, and color being the only means of conveying information.

Adobe Acrobat also creates an accessibility report. On the accessibility pane, click on Accessibility Report to see further details on what it checked for and whether the PDF passed those checks.