



Accessibility Best Practices

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The Goal: Information Parity

The goal of accessibility measures is to create an equally effective and informative experience for all users, regardless of their abilities or circumstances. With primarily visual mediums like documents, websites, and presentations, the main concern is creating an equal experience for users with low vision or no vision, who may or may not rely on assistive technologies like screen readers or braille displays. An accessible piece doesn't just check certain boxes or pass certain tests; it also allows any user to come away with an equal understanding of its message and content.

To achieve information parity in visual mediums, we use several different measures. Primarily, we ensure that every piece of visual information is also available in text that is detectable and usable for screen reading programs. There are also behind-the-scenes measures to create accessible materials that, while invisible to users who don't rely on assistive technology, are vital to those who do.

Alternative Text (Alt Text)

Alt text is a description added to any important image or graphic. While users with full vision can easily view and immediately understand pictures, charts, and graphics, users with low vision might not be able to discern what is in a given image or what it means. Alt text allows us to rectify this by adding descriptions to images, so anyone using a screen reader program can hear this description and understand the image's content and meaning. However, simply adding a description does not mean we have achieved information parity; we must ensure that our descriptions create the same understanding for the people who read them as the people who view the image directly.

GOOD AND BAD ALT TEXT

Our success in creating information parity hinges on the quality of our alt text descriptions. Poor descriptions will technically pass an accessibility check, but will be useless to most users with low vision. Good descriptions allow a user with low vision to experience and understand an image to the same level as any other user.

However, a very thorough description is not always a good one. A user with full vision does not stop reading the rest of a document to analyze every single detail of a photograph. They look at the image, absorb the elements relevant to the overall topic of the piece, then move on. Similarly, an alt text description should not be laborious for a user with low vision to get through; it should allow them to quickly understand the image and gain the same understanding of why it is relevant.

A good alt text description balances brevity and complexity. It should be information-dense without being tedious, and efficient without being incomplete. Below are some examples that demonstrate good and bad alt text for the same image. For the sake of this example, let's say that this image is being used for a campaign about remote learning, targeted to adult students.



- **Worst:** no description
- **Bad:** “a person does paperwork.”
 - This fails to communicate anything about the image other than the presence of a non-specific person doing non-specific work; no relevant details or information are communicated.
- **Poor:** “A woman does paperwork while holding a child.”
 - This improves on the previous description because it is more specific about who is in the image and what is happening, but still fails to communicate why this image is relevant to our topic.
- **Acceptable:** “A mother does schoolwork while holding her child.”
 - Now we’re starting to include details relevant to our topic: this is a mother with a child who is doing work for school, which mostly matches our target audience, but is still missing a couple of relevant details.
- **Ideal:** “A mother holds her infant child on her lap while completing schoolwork on her dining table using paper, pen, and a laptop.”
 - We’ve included several important details here that make this description ideal: the approximate age of the child (more indicative of the life situation of the mom), the nature and medium of the mother’s work (including the mention of a computer to emphasize the remote learning aspect), her location at home (again emphasizing remote learning), and some indication of how the mother is holding her child (helping the user better imagine what is happening in the scene). With these details, we have covered all of the essential information we want to convey.
- **Acceptable:** “A young mother holds her infant child on her lap while completing schoolwork on her dining table. A laptop, various papers, and breakfast food are visible on the table.”
 - This description is slightly too descriptive, but would still be acceptable. It covers all of the same information as the ideal description above and also includes some irrelevant information, but does not burden the user.
- **Too Much:** “A young mother with short red hair wearing a patterned sleeveless top holds her 12 month-old child on her lap while filling out schoolwork in front of a laptop on her dining table. Also on the table are a plate with two slices of toast and a glass of orange juice. The room is brightly lit by a nearby window.”
 - This is too much information, and our relevant details about the mother and her activities get lost. While this paints a more complete picture of the image, the goal of including this image in our campaign is to communicate how adults with children can use remote learning, not to showcase the image as art.
- **Overkill:** “A young mother with short red hair wearing a green, yellow, and blue patterned sleeveless top and black rectangular glasses holds her 12 month-old child on her lap while filling out schoolwork with a blue pen in front of a silver laptop on her dining table. Also on the wooden table are a white plate with two slices of toast and a glass of orange juice. The room is brightly lit by a window to the mother’s right. In the background, shelves hold various jars of spices in front of the white tiled kitchen backsplash.”
 - This is far too much information that takes away from our main communication goal. Worse still, it is tedious for someone using a screen

reader to get through, so they might choose to skip hearing it and end up with little to no information about the image.

ALT TEXT BEST PRACTICES

Include alt text for all images and graphics that are important for understanding a communications piece.

Images used for subtle backgrounds, logos used beyond the cover page, or other images that are not part of communicating or illustrating an idea do not need alt text, but must be marked as “decorative” to avoid the screen reader picking them up and interrupting the flow of relevant content.

While text is needed for most images, images should never be used for text. Avoid adding images of text at all costs. Images of text create an accessibility barrier, because users with full vision can read them while users relying on screen readers cannot. A frequent example of poor practice is website banner images with embedded headlines; whenever possible, the headline should be live text so that a screen reader can pick it up (live text can be selected with your cursor; images of text cannot).

While images of text are unacceptable, images that have text in them are OK as long as the text is not the main content. For example, a website that reviews books might have pictures of book covers, which will have text on them. This is fine as long as the alt text for those pictures also identifies the title and author of each book. On the other hand, a header image with text reading “Our review of To Kill a Mockingbird” is bad practice; that header should be written using live text.

In PowerPoint presentations, a user with low vision who reads your presentation after the fact should understand your points equally well as someone who attended in person. For that reason, it is important to include your main points for each slide in live text so they can be understood by anyone viewing the presentation later. Avoid slides with just one image or chart and no other content. They make for clean slides while you present, but they leave out anyone trying to understand your presentation afterward, regardless of vision.

Structure and Headings

Structure is essential to the way we navigate content. If a newspaper or news website only used one font for everything, all the same size with no line breaks or bolding, it would be impossible to find what you wanted to read. Spacing and clear heading structures make it fast and easy to find what we are looking for in any medium of communication. For example, the heading at the top of this paragraph lets you know the topic of this section, and the fact that it is larger and bolder than some of the preceding headings lets you know that it is not a sub-topic of the previous section. Users with full vision understand this visually, but how do we communicate that structure regardless of vision?

This is where text styles come into play. Using text styles effectively will not only make your communications materials easy to navigate and understand for all users, it will also make them easier for you to create in the first place.

TEXT STYLES

Text styles are sets of attributes that can be applied across a document. Common uses are heading styles, quote highlights, and main body text; the heading above is assigned with the Heading 3 style for this document, and this text is assigned with the Body style. Styles make it easy to create consistent formatting because you can assign a whole suite of adjustments and attributes to sections of type with just one click. Additionally, if you later change the definition of a style — say you want the Header 3 style to be bolded — it automatically updates all text assigned with that style throughout your document, saving you from individually changing each instance.

Beyond making your documents easier and more consistent, styles serve a vital role in accessibility. In addition to all of the visual attributes included in styles, there is also behind-the-scenes information built in, which screen readers pick up and convey to the user. For example, the heading styles in this document are programmed with information about which heading level they represent, which will be read out by a screen reader. In this way, all users can easily identify the structure and hierarchy of the document. Just like a user with full vision might quickly scan through the pages to find the heading for the section they want to read, a user with a screen reader has the option to tab through just the heading level text to find their desired section.

USING TEXT STYLES

Most word processing and page layout programs, such as Microsoft Word, Google Sheets, and Adobe InDesign, have built-in tools for creating and applying text styles. Word's text style panel, for example, is front and center in the "Home" tab of the application.

Clicking one of the style options will instantly apply that style to any selected text in your document. [You can read here for more information on using styles in Word.](#)

Most general purpose word processors like Word and Google Sheets will automatically assign accessibility information to styles for you; the Heading 1 style will always be coded as a heading 1 to screen readers, and so on. More complex programs like Adobe Indesign require you to manually specify accessibility information for each style.

STRUCTURE AND HIERARCHY BEST PRACTICES

- Always use text styles when they're available. They ensure your document is easily navigable by all readers, and make it easier to create consistent formatting.
- Always use heading levels sequentially. Don't jump down from a heading 2 to heading 4; a heading 3 must come before a heading 4.
 - Skipping upwards is acceptable (eg. from a heading 4 to heading 2), but downwards movement must be sequential in order for screen readers to parse the structure correctly.
 - The structure should be similar to bulleted lists, with main points, their subpoints, sub-subpoints, and so on.

Other Accessibility Best Practices

Alt text descriptions and structure are the essentials of accessibility and information parity, but there are a few more factors to consider for full accessibility compliance. Most are to do with optimizing for screen readers, but will help all users no matter their abilities.

TEXT CONTRAST

Most of this guide is focused on preparing materials for screen readers, but there are some accessibility requirements that help those who don't rely on such software. Chief among these is contrast, which helps users whose vision issues don't require a screen reader but still present challenges in some situations. By ensuring that all text has sufficient contrast with its background, we make that text easier to read for all users.

Text contrast is the difference in brightness between text and its background. Black text on a white background has very high contrast and will be much easier to read than dark gray text on a medium gray background, for example. Introducing color can complicate things, as some colors can look very distinct without actually providing much contrast.



In the example on the left, the orange A appears to have significant contrast with the blue background, but when they're shown in grayscale on the right we can see that they actually have very little difference in brightness.

To help objectively measure contrast, you can use a contrast analyzer. There are [online tools like WebAIM](#) where you can input your color values and see if they meet accessibility standards. There are also [standalone programs like Colour Contrast Analyzer](#) that let you directly sample colors on your screen, no manual input needed. With either tool, you should aim to meet the WCAG AA standard for contrast.

DESCRIPTIVE LINKS

When inserting hyperlinks into documents or presentations, make sure to embed them in text which describes the content of the link. Similar to tabbing through headings quickly, screen readers have the option to tab through all of the links in a document. If links are formatted as “description of the content ([link](#))” then a screen reader tabbing through multiple links will only read out “link, link, link, link...” which is not helpful to the user.

Instead, assign the hyperlink to the descriptive text itself. The link in the previous section about using text styles in Word is a good example. Linking the description itself provides two benefits: it helps users with screen readers quickly navigate to content they want, and it provides a more direct prompt to all users to explore the linked content.

TABLES AND CHARTS

- Screen readers navigate tables in a specific way, and they require certain formatting to ensure they read them correctly.
- Every table must have a header row at the top which describes the category of each column. If the table breaks onto multiple pages, the header row must be set to repeat on each page.
- Tables may not use any split or merged cells. Screen readers move through tables sequentially, cell by cell, and split and merged cells disrupt this process since there is not a clear direction to take from that cell.
- Tables should only be used for data, never as a layout tool for arranging text.

IMAGE PLACEMENT

In order for image alt text to be read by a screen reader, the image must be part of the document text flow. This means that all images with alt text must be set as “in-line with text,” not in front, behind, or otherwise independently positioned. This severely limits the layout options for using images, but is necessary for any image that contains alt text.

Background images and other decorative graphics (as long as they are marked as decorative) can be placed in any fashion, as they do not need to be picked up by screen readers.

FILE INFORMATION

Accessibility starts before the user even opens a document. To help navigate between document files, each document has meta information that screen readers pick up and read out. At the minimum, documents should have meta information that includes a title.

For more information, you can [read about how to add or change document information in Microsoft Office applications](#).

Checking for Accessibility

Many programs have built-in tools for checking accessibility compliance. They aren’t always 100% accurate, but they will help you fix all of the common issues that you might encounter.

BEFORE EXPORT

Most Microsoft Office programs give you tools to check your document inside the application while you’re working on it. These tools can usually be found under the “Review” tab, marked as “Check Accessibility.” This will open a sidebar listing any accessibility issues present in your document and their locations, allowing you to easily rectify any problems as you work. [Read more about checking accessibility with Microsoft Office](#).

AFTER EXPORT

Most documents, regardless of what software they are created in, are finalized into PDFs. Adobe Acrobat has tools for checking and fixing accessibility issues in PDF documents. It’s always best to fix accessibility problems while you’re making a document, before exporting to another format, but Acrobat’s tools will allow you to fix documents even if you don’t have access to the original file. [Read more about checking accessibility with Adobe Acrobat](#).

GETTING HELP

If you're unsure about a document you've created, or want further assistance to ensure your materials meet accessibility standards, please feel free to [get in touch with the Foundation's Conferences and Events team](#). We're happy to answer any accessibility questions or help remediate documents.