

Accessibility in Technical Writing and User Demonstration of CommonLook PDF Accessibility Tool

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Agenda

Intro

Disability and Accessibility Defined

Accessibilty in Documentation

Accessibility for the Web

CommonLook PDF

Hello and welcome! Thank you for joining this meeting today. I'm always excited to talk about accessibility and what we can do to ensure our deliverables are accessible for everyone. We'll go through how disability and accessibility are defined, cover some standards for accessible documentation and websites, then I'll take you through a short demonstration of CommonLook, a great tool to make your PDFs and Word docs accessible. Please save questions for the end so I know we can cover all the material. I'll provide my contact information if you have more questions, or we can talk outside of the session.

Introduction

- Why should I care?
 - It works when it works for everyone.
 - It's the right thing to do.

- To begin, I want you to think about how you prefer to communicate. Talking on the phone, texting, video, in-person, how do you prefer to communicate? Is it important to you to be able to see expressions to take in the entire message? What about reading? If you like to read, do you prefer holding a book or a tablet? How do you learn? Are you an auditory or visual learner? Do you learn best by doing and touching? What if suddenly you couldn't. What if you had to figure out a completely different way? What if you suddenly lost the ability to use your hands. Could you still do your job? What if your vision or your memory was impacted by a rough bout of Covid and now the words on the screen are blurry or the flashing emojis in Slack or Messenger hurt your eyes and give you headaches? Would you know the tools in your programs and equipment to still do the things you can do now?
- Even if it never happens to you, millions of people across the world have to learn how to navigate in a world not built for them. Each of you, in your job and in your daily life, have a chance to help build a world that works for everyone. How do you know when it works? It works when It works for everyone.

Disability Defined

Definition and Statistics for United States and United Kingdom

- United States
 - Americans with Disabilities Act (ADA) defines disability as “physical or mental impairment that substantially limits one or more major life activity”.
 - 61 million people (20 percent) in the US have a disability
 - The ADA and Federal Section 508 are the standards of reference in the US.

Each country defines disability for its people. I'll share two examples. In the US, the Americans with Disabilities Act (ADA) defines disability as physical or mental impairment that substantially limits one or more major life activities. 61 million people or about 20 percent of the population are considered disabled. Think about that. 61 million people who need information in the way they communicate. Accessibility standards for the US come from the ADA, a law since July 26, 1990, and Federal Section 508, which was amended to include accessibility in electronic and communications technology in 1998 and was updated in 2017.

Disability Defined

Definition and Statistics for United States, United Kingdom, and Germany

- United Kingdom
 - Disability Discrimination Act (DDA) defines disability as “physical or mental impairment which has substantial and long-term adverse effect on the ability to carry out normal day-to-day activities”.
 - 14.1 million people (20 percent) in the UK have a disability
 - The DDA and the Equality Act are the standards of reference in the UK.

The United Kingdom has the Disability Discrimination Act (DDA), and defines disability as physical or mental impairment which has substantial and long-term adverse effect on the ability to carry out normal day-to-day activity. Similar to the US, the UK has around a 20 percent disability rate, or about 14.1 million people. The UK follows the DDA and Equality Act. I'm going to focus on ADA standards for most of the presentation, although the web standards are adopted globally, for the most part.

Accessibility Defined

Accessibility is the ability to access all information and features of a product or service.

Assistive Technology Examples

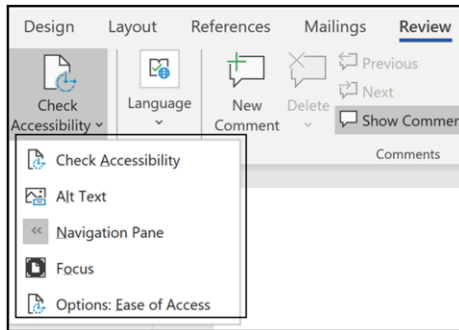
- **Visual** – screen readers and refreshable Braille displays, color and design planning
- **Hearing** – products interface with hearing technologies. Captioning and audio description must be able to be turned on/off
- **Mobility** – usability of keys and controls. Access features must be installed in the system or software



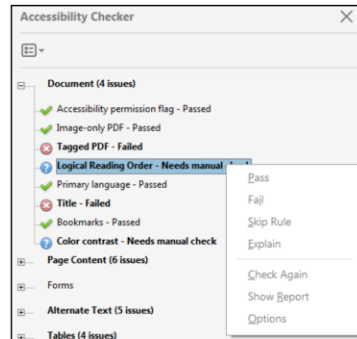
- So what do we mean when we say, “Accessibility?” A product, program, or web page that is “accessible” can be used by those who may require the use of assistive technology (known as AT) such as screen readers, refreshable Braille displays, captioning, audio description, and keyboard controls. Color and design planning are also important. Can your document or web page be fully accessed by Tab and Enter keys? Have you ever tried it?
- Accessibility is a civil right under the Americans with Disabilities Act! Accessibility benefits everyone! Accessibility breaks down barriers to information and technology. It fosters communication and provides equal opportunities.
- The importance of making documents accessible cannot be understated. Beyond the legal ramifications, everyone – no matter the physical ability or neurodiverse ability – should be able to access any tool or document needed.

Accessibility in Documentation – Program Tools

Word



Adobe Pro



IS IT ENOUGH?

- Most likely, the programs you already use have accessibility tools. Word, Adobe PDF, FrameMaker, and MadCap Flare have accessibility tools such as alt text, tagging, and accessibility checkers. Use the headers and other available formatting because the associated tags are already set for you.
- Microsoft Office365 products like Word and PowerPoint have Check Accessibility options under the Review Tab. The options are Check Accessibility, Alt Text, Navigation Pane, Focus, and Options: Ease of Access. Under the Ease of Access options, you can set the Accessibility Checker to run automatically in the background. You can set autogenerate alt text, but I recommend you actually write your own.
- Adobe Pro has an accessibility checker that gives you a report and some explanation of what needs to be corrected. Also, within Acrobat, you have a read aloud option, keyboard alternatives to a mouse, ability to read multiple columns as one, and other accessibility features.
- If you use FrameMaker, you have alt text and tagging tools, which help generate better PDFs.
- For MadCap Flare, I've never used it, but I asked the person at the booth here and he shared several. You can go ask him.
- Is it enough? Well, sort of. It's great, but you really need to check every tag, inspect every element, and check your alt text. These tools don't tell you if your alt text is wrong. Do what you can to build in time to check everything.
- Okay, let's look at six of the most common standards for documentation, then we'll look at some web standards for those who may use Confluence or other web-

based writing.

Alternative Text

- Images must have text alternatives that describe the information or function the images represent.
- Screen readers and other assistive technology convey in the image in words.
- 125 characters
- How
 - Find the purpose and context
 - Be concise and accurate
 - Watch your language



- Alternative text – or alt text – describes images. This text is picked up by screen readers and other assistive technology and conveys the image in words.
- The general guideline is 125 characters or less, although your alt text box doesn't usually have a limit set.
- So how to you write alt text? First figure out the purpose and context of your image. Is it just a decorative image that adds no value? Mark it as decorative. Does the image actually convey some meaning to go along with the text? Then describe it so that it fits in with the text in a concise and accurate way. Use the same terms, same flow as your text. That's what I mean by the bullet Watch your Language. DO NOT use ONLY an image. An image is a supplement; it should not be the point. Also, a screen reader can't read text in your image, so certainly don't use an image of text or an image of callouts in an image without typing all the text in the body of the document. Alt text is not meant to be your document.
- The image of toothbrushes on this slide is an example for you of why I said earlier not to rely on autogenerate. Autogenerate gave me "Row of toothbrushes". Okay, fine, it is, but how much better would it be to say A horizontal row of Eight bamboo toothbrushes with different colored heads of bristles? That's under 100 characters.

Color Contrast

- Create content with text that uses color or shading with sufficient color contrast.
- Use a Color Contrast Analyzer (CCA) such as this one:
<https://developer.paciellogroup.com/resources/contrastanalyser/>

| Good Contrast | Bad Contrast |
|--|--|
| White text on black background (ratio 21:0:1) | Dark gray text on black background (ratio 2:03:1) |
| Black text on white background (ratio 21:0:1) | Light gray text on white background (ratio 1:41:1) |
| Dark green text on yellow background (ratio 6:29:1) | Orange text on yellow background (ratio 1:5:1) |
| Light blue text on a dark blue background (ratio 7:21:1) | Red text on a dark blue background (ratio 1:4:1) |
| Light green text on a red background (ratio 5:6: 1) | Dark green text on a red background (ratio 1:4:1) |

- Good color contrast helps ensure your text can be read easily. Besides being important for those with low vision, blurry vision, or other vision difficulties, it also helps those who have some neurological conditions, ADD, and dyslexia to better focus on the text.
- This image shows some examples of what constitutes good and bad contrast. The lines on the right may present difficulty for those with visual impairments.
- Several Color Contrast Analyzers (CCAs), such as the one at website listed on this slide, are available online to help test contrast and text readability. This is an example and is not an endorsement of any particular product.
- Watch your colors, though, because some people with color blindness do not benefit from the color at all or they view it as a color that causes it to be a poor contrast.

Accessible Fonts

- List of Most Accessible Fonts
 - Tahoma
 - Calibri
 - Helvetica
 - Arial
 - Verdana
 - Times New Roman
- Best size for low vision is at least 14 pt with headings being 2 pt higher
- Check your device for dyslexia font

- This slide provides a list of the most accessible fonts: Tahoma, Calibri, Helvetica, Arial, Verdana, and Times New Roman. These fonts have the most clearly defined letters.
- The best size for those with low vision is minimum of 14 with headings at least 2 higher than your body text.
- Here's a bonus tip: if you or someone you know has dyslexia, check your device and apps such as Kindle for dyslexia font. It especially helpful for reading books on your tablets or similar devices.

Links

- Be uniquely identified
- Describe the destination, function, and/or purpose in the name of the link or within context
- Examples:
 - Bad example: Click here.
 - Good example: Learn more about accessible PDF development at www.section508.gov.

- If you use links in your text, as I often do to link Confluence pages, make each link unique. Describe where the link goes or tell its purpose with the words around the link. For example, don't use Click here. Yes, someone may be able to hover over the link, but it's cumbersome. The second example listed says Learn more about accessible PDF development at www.section508.gov with the web address as the link.

Minimalist Writing in Plain Language

- Plain language is one of the greatest allies of neurodiversity.
- The US Government defines plain language as writing that is:
 - Clear
 - Concise
 - Well-organized
 - Follows other best practices appropriate to the subject or field and intended audience
- Use Active voice
- Avoid metaphors
- Use smaller paragraphs and bullets

- In addition to the formatting standards, simplified writing or minimalist writing in plain language is helpful for everyone. It helps present a clean space so users are not distracted by unnecessary words, words they don't understand, and anything that takes focus away from the point. Plain language is one of the greatest allies of neurodiversity. It's helpful for those with dyslexia, ADHD, and other types of neurodiversity. It's great for everyone!
- Some tips; Use active voice. Passive voice sentences are longer and can be harder to understand.
- Don't use metaphors, idioms, or other abstract figures of speech. Clearly state your point.
- Use smaller paragraphs. Long paragraphs get boring and people can lose focus. Bullet points are great because they act as a signal for important information.

Accessibility for the Web

If it's not important enough to make accessible, it's not important to post.

- Bruce Baily, IT Specialist, US Access Board

Okay, let's look at some standards for the web. In my current position, I use Confluence to write articles. The articles and programs are web-based or app-based.

I attended a webinar on web accessibility a few weeks ago and the speaker, Bruce Baily, he's an IT Specialist for the US Access Board, said this: If it's not important enough to make accessible, it's not important to post. I love that. It's applicable to all deliverables, I think.

Web Accessibility Standards

- World Wide Web Consortium (W3C)
 - Develops web standards, including HTML and CSS
- WCAG 2.0, 2.1, and future 2.2
- 4 Principles
 - Perceivable
 - Operable
 - Understandable
 - Robust
- 3 levels of success criteria: A, AA, AAA

- The World Wide Web Consortium (W3C) is the main international standards organization for the web and was founded in 1994. Its member organizations provide full-time staff to develop protocols and guidelines that ensure long-term growth for the Web.
- Web Content Accessibility Guidelines (WCAG) are developed by the Accessibility Guidelines Working Group (AD WG, a part of the W3C. Version 2.0 was published 2008, 2.1 in 2018, and 2.2 draft will be finalized by Dec 2022.
- 12-13 standards organized into 4 principles: perceivable, operable, understandable, and robust
- Each guideline has testable success criteria at 3 levels: A, AA, AAA

All the Standards Plus...

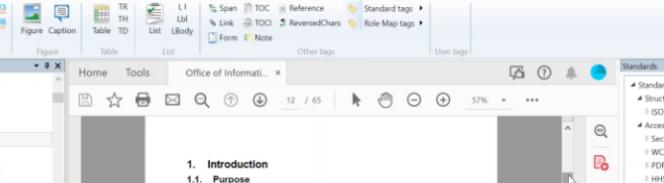
- Content does not restrict its view and operation to a single orientation, such as portrait or landscape, unless a specific orientation is essential.
- Content can be presented without loss of information or functionality, and without requiring scrolling in two dimensions (except when necessary) for:
 - Vertical scrolling content at a width equivalent to 320 CSS pixels
 - Horizontal scrolling content at a height equivalent to 256 CSS pixels.
- Non-text contrast of 3:1
- Spacing
 - Line height: at least 1.5 times the font size
 - Spacing following paragraphs at least 2 times the font size
 - Letter spacing at least 0.12
 - Word spacing at least 0.16

- So, for the web, all the other accessibility standards apply, plus some of the following. I'm only sharing a few here.
- Orientation: Create content that can be presented in different ways without losing information or structure. Make it so someone who doesn't have mobility in their hands doesn't have to figure out how to move the tablet that's attached to the wheelchair.
- Reflow: This means content can be enlarged without something disappearing or breaking. It can be disorienting to have to scroll right to left to read each line. I have this trouble in Lucid Charts.
- Non-text contrast of 3:1. This is for things like text boxes in a form. The boxes need to be at a good contrast with the background so those with low vision can actually see that there is a field to fill out. Same for icons and buttons.
- Spacing: No single spacing! It's terrible! If you're writing for web pages or in Confluence, make sure your line, letter, and word spacing is at least the following: 1.5 times for line height, 2 for paragraphs, .12 for letter spacing, and .16 for word spacing.
- Bonus tip: if you're using hover boxes for tips or definitions, make sure they don't cover the text.

CommonLook PDF

- Industry-leading software tool that simplifies and accelerates the remediation process to ensure compliance with accessibility standards.
- CommonLook PDF and CommonLook Office
- Accessibility Services
- www.CommonLook.com

- Okay, let's move on to the CommonLook PDF demo. CommonLook PDF defines itself as the industry-leading software tool that simplifies and accelerates the remediation process to ensure compliance with accessibility standards.
- Remediation meaning going through the entire PDF to make sure every line and element is tagged correctly.
- CommonLook also has a version for Microsoft Office, if you use Word docs instead of PDFs.
- CommonLook also offers to do your documents for you.
- Currently not offered to individuals, but they will provide training for your team when you purchase a product and have additional training resources on their website.
- Let's take a look.



Helpful References

- US Access Board: www.access-board.gov
- W3C & WCAG: www.W3.org
- ADA: www.ADA.gov
- 508 Compliance: www.Section508.gov
- CommonLook: www.CommonLook.com

- This slide provides web addresses so you can look up all the standards.
- The US Access Board provides monthly webinars on accessibility topics, anything from web accessibility to accessible mini golf courses.
- The others listed for WCAG, ADA, and 508 will take you to the standards.
- And then the web address for more information about CommonLook.

Questions?

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Questions?

Thank you so much for attending my session. If you have further questions or would like me to talk to your team or company about accessibility, please contact me to discuss that.