SOCIAL MEDIA

Diversity, Equity, and Inclusion Embraces Accessibility

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ABSTRACT

According to the Centers for Disease Control and Prevention, about 1 in 4 Americans have a disability.[1] As the population ages, there is an increased need for technology and accessibility (equal access), including Web accessibility. Accessibility is often defined in terms of 2 distinct measures: compliance with standards and usability for people with disabilities. The most common accessibility guidelines are the Web Content Accessibility Guidelines (WCAG) 2.0/2.1 and the Section 508 of the Rehabilitation Act. They are written to support the accessibility of HTML content. According to the W3C Web Accessibility Initiative, "Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them."[2] Business owners, medical writers, technical editors, social media managers, Web designers, and information technology administrators play a critical role in ensuring a better Web experience for all of us. In this article, we share practical ideas for you to show your commitment to diversity, equity, and inclusion with changes you can make to your website and content today. Accessibility solutions, such as using image alternative text, camel case in hashtags, white space around headings, margins, indentations, and columns, and strategically using fonts and color contrasting, are a few of many effective ways to provide accessible content to a larger audience. We also share other ways to address accessibility with creative strategies, such as podcasting. For medical communicators, strategies in communication, such as descriptive language and the use of storytelling techniques, are vital to ensuring your audience has a clear understanding of the message.

According to the Centers for Disease Control and Prevention, about 1 in 4 Americans have a disability.[1] Disabilities can be situational, temporary, or permanent. Some are hidden, such as chronic fatigue syndrome, diabetes, depression, visual and auditory disabilities, or learning difficulties. As the population ages, there is an increased need for technology and accessibility (equal access), including Web accessibility.

Most information today is shared via the Web, and the Web is the first impression someone gets of your organization. If your information isn't accessible to those who have different abilities and disabilities, your information will not have the desired effect, and your organization's reputation may be in jeopardy.

Think about it this way—what thoughts do you have about information and organizations when you cannot access their information on the Web? Maybe they choose not to have a website, or the colors give you a headache, or maybe that autoplay video has a sound you find irritating, so you turn it off. How do you feel about the organization and/or the information they are trying to share at that moment? For people with different abilities and/or disabilities, this is a routine experience for everything in the world around them.

Accessibility is often defined in terms of 2 distinct measures: compliance with standards and usability for people with disabilities. According to the W3C Web Accessibility Initiative, "Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them."[2] So, why should you care about accessibility? Here are several reasons:

- It helps ensure equal access.
- You'll broaden your audience and expand your customer base.
- It means search engines will be able to read your site more completely.
- It's done for legal reasons.
- It generates a positive media response.
- It supports corporate social responsibility.
- It's also the right thing to do. This builds trust and brand loyalty.
- It improves usability for users in general.

We all benefit from a win-win approach.

Business owners, medical writers, technical editors, social media managers, Web designers, and information

technology administrators play a critical role in ensuring a better Web experience for all of us. Many people like graphs and other data visualizations, but these can create difficulty for users who are visually impaired and/or blind. Why? Screen readers may not always read and interpret these displays correctly. A screen reader is a software program that allows people who are blind and have low vision to read the content on a computer screen. It's done with a voice synthesizer or braille display. So, it is important to have a text description and/or plain text summary to ensure that the data can be accessed by everyone.

GUIDELINES

The most common accessibility guidelines are the Web Content Accessibility Guidelines (WCAG) 2.0/2.1 and the Section 508 of the Rehabilitation Act. They are written to support the accessibility of HTML content.

The WCAG 2.0 have long been the gold standard for accessibility on the Web. They were published in 2008. WCAG 2.1 were released in 2018, and it covers a wide range of recommendations for making Web content more accessible.

Three Levels of WCAG 2.0/2.1 Conformance

WCAG 2.0 A, AA, and AAA standards all have success criteria that must be met.

A—Minimal compliance
AA—Acceptable compliance (Aim here)
AAA—Optimal compliance

The principles underlying WCAG 2.0 and 2.1 make the acronym "P.O.U.R.":

- Perceivable
- Operable
- Understandable
- Robust

First, your content must be perceivable. Second, the interface elements in the content must be operable. Third, the content and controls must be understandable. Finally, your content must be robust enough to work with current and future technologies.

What are some easy and fast changes you can make to your website and content today to be more inclusive? We have some practical ideas for you to show your commitment to diversity, equity, and inclusion.

ACCESSIBLE SOCIAL MEDIA BEST PRACTICES

Alternative text is the first principle in Web accessibility. Web accessibility is likely to become a major ranking factor for Google in the future. Adding relevant alternative text to your images is one easy and effective way of doing it to improve your visibility.

An alternative text is a written description of an image or graphic that a screen reader can read out loud. Alternative text is often referred to as "alt text," "alt tags," or "alt attributes." It communicates the graphic's purpose and context. It's not too long, so aim for a maximum of 100–125 characters. In addition, don't feel like you need to describe everything.

One can think of it as an alternative to viewing the image for users who are blind or have low vision. It is also helpful for people with sensory processing disorders or learning disabilities. A missing alternative text is one of the most common image accessibility complaints, and it's one of the easiest things to fix.

An alt tag can help your photo be more accessible and discoverable. It can also boost your image search engine optimization. Remember, Google is pushing for the use of alt text because it can't see the images that you upload to your site. But alt text helps the search engine categorize your photos.

Image Alt Text

When using image alt text, it should not include "picture of" or "image of." A screen reader already tells the user this information. On the other hand, it is acceptable to use the words "this screenshot" or "this illustration" in your alt text. In certain situations, it may be helpful to distinguish between paintings, screenshots, or illustrations. But it's a best practice to avoid the more generic use of terms, such as image, icon, or picture.

Here's an example of a good alt text:

Two chocolate brownies stacked on top of each other with blueberries, raspberries, and mint leaves on top (Figure).

Figure. Two chocolate brownies stacked on top of each other with blueberries, raspberries, and mint leaves on top. © [nata vkusidey] / Adobe Stock.

Here's an example of a substandard alt text:

Brownies

As a general rule, there must always be an alternative description tag for every image. However, if you wish for the screen reader to just bypass or jump over the image, a null or "" is put in the text section of the tag: for example, <alt> "" </>. In this case, a decorative image doesn't need alternative text. A decorative image is used only to evoke a feeling or reinforce accompanying copy rather than to convey meaning on its own. Simply putting a null mark in every alt text would technically pass a lot of software-generated validation tools, but the image would not be accessible. Again, it's important that whoever is designing or adding content to the page makes a decision regarding the purpose of the image and what it is intended to convey. When in doubt, it is acceptable to add descriptive alternative text.

Complex Images and Long Descriptions
Complex images can be challenging for many people to understand. For example, people with low vision, learning disabilities, and limited subject-matter experience often find them confusing. A good practice is to simplify the image or graphic.

For charts, graphs, diagrams, illustrations, and other complex images, simple alt text may not be sufficient to convey the information. In this case, the image's alt text should direct the user to the long description conveyed by the image.

Here's a tip: use lists, headings, and other structural elements to organize content in a long description.

Headings
Headings are an important part of an accessible website. Sections must have headings that identify them. Make sure your content is well-formatted with headings and lists. That way, readers can use their screen reader's quick navigation keys to find their way. This adds clarity and orients users to the overall document structure.

Navigation
Your website needs to be navigable. But can it be navigable without a mouse? People who are blind or have low vision use the keyboard to navigate, not a mouse. For a website to be accessible, it must work without the use of a mouse.

Color and Contrast
Your website needs to be distinguishable for an optimal experience. What are some best practices on using color?

Text (paragraph text) and interactive portions should have a contrast ratio of 4.5:1. For large text, your text ratio can be 3:1.[3]

Color alone should not convey information on a website. Why? Some people are blind, have color blindness, or have color-contrast deficiencies. The most common form of color deficiency is deuteranopia, red-green. Plus, the most common offender: links. Other best practices one should consider include:

- Avoid using the following color combinations: red/green, blue/green, and yellow/red.
- Use plenty of white space.

Two reputable contrast checkers that should be included in your toolbox:

https://userway.org/contrast/000000/ffffff
https://webaim.org/resources/contrastchecker

Use Camel Case in Hashtags
To make your hashtags more accessible, capitalize the first letter of each word. This is called "camel case." When you capitalize the first letter of each word, screen readers now have the indication they need and are much more likely to read the hashtag as intended. Note how these 2 examples are written:

#StateOfMentalHealthInAmerica2021
#notcamelcase

The first example is using camel case in hashtags; the second is not.

In the same theme, capitalize the first letter of each word in a URL. According to the American Foundation for the Blind, this will make it easier to understand for people who are blind or have low vision when they use screen readers.[4]

Here's the bottom line: it's not only friendlier for people who are blind or visually impaired who use screen readers, but it's also friendlier for people with dyslexia or cognitive disabilities. In essence, #CamelCase is easier for everyone to read.

Emojis and GIFs
Limit the use of nontext objects like Emojis and GIFs. You can write a description of an emoticon in parenthesis or brackets after sending it.

:) <smiling face>

In addition, double-check the emoji's description before using them. Plus, place emojis at the end of posts and tweets to avoid clarity issues.

GIFs and Animations

Avoid sharing GIFs that contain rapid flashing content that may trigger epileptic seizures in people with photosensitive epilepsy. Plus, ongoing animation can be distracting for people with attention deficit hyperactivity disorder (ADHD).

Multimedia Content

Audio and video content can be difficult for some users. For example, people who are deaf or blind or have low vision or hearing loss may not be able to perceive video or audio content. In addition, people with cognitive impairments may find the pace of multimedia content challenging.

One of the best alternatives for multimedia content is a text transcript. Written transcripts are recommended for all video and audio content. In that theme, videos should be described and captioned.

Closed captioning has been around for many years. It can help make a video or movie more accessible. It benefits people with learning disabilities, ADHD, autism, and hearing loss. In addition, it helps people in other ways, such as when we are in a noisy environment or if our audio is poor. Captions can also support us if the person in the video is a fast talker or has an accent. Some captioning apps include MixCaptions, Clipomatic, AutoCap, Kapwing, Clips, and Threads.

On the other hand, an audio description is a newer technology that can supplement closed captioning.[5] It is a form of narration used to provide information surrounding key visual elements in videos for consumers who are blind or have low vision. In other words, you can think of audio description as providing a verbal version of the visual image.

Live-Streaming Tips for Accessibility

For live-streaming events, consider these 3 tips:

1. Use video services that have live-captioning capabilities like Zoom or Google Meet.
2. Provide a transcript or fully captioned video soon after your event ends.
3. Hire an on-camera interpreter for an additional level of accessibility.

Images With Texts

As a general rule, images of text are not allowed. If you cannot avoid images of text, it's best to have the same text in the alt attribute. Remember, Google likes text-based content. Exceptions can be made for company logos, brand names, and other situations in which the way that the text is presented visually is crucial to its meaning.

White Space

Standardize site structure and page creation by liberal use of white space. Active white space is intentionally used to create structure and flow on a page. It can serve other purposes, such as helping readers to process the text more efficiently and directing them to important information. Be sure to use white space around headings, margins, indentations, and columns. Learning how to properly use white space can garner attention, sales, and impact.

Font Style

Font style is a critical element of accessible website design. In this case, readability is the most important factor. Choose a font that has easily recognizable characters, such as sans serif fonts: Arial, Calibri, Helvetica, or Verdana.

"The US Department of Health & Human Services unofficially recommends the following fonts for PDF files: Times New Roman, Verdana, Arial, Tahoma, Helvetica, and Calibri."[6]

The minimum font size on your website is 16 points or 16 px. It depends on the font because fonts tend to vary.

When users zoom in on the page, they have to be able to zoom to 200% without affecting the content.

Finally, avoid italics, all caps, bold type, or other formatting that could affect readability.

Acronyms, Abbreviations, and Jargon

Spell out acronyms when they're first introduced in your text to your readers. Plus, avoid abbreviations, jargon, and figurative language.

Web Content Reading Level

Create content for the appropriate reading level. The general standard for Web content is eighth grade. The goal is to keep sentence structure simple and paragraphs short. It's OK to be conversational, but keep it clear and concise. This helps many users with cognitive and visual disabilities.

Adding Hyperlinks

Avoid these words or phrases in links:

- Click here
- Read more
- More info here
- Link to (some link destination)

It is best to tag the actual message as a hyperlink. If it is a link, it automatically means click here.

Another way to address accessibility is with creative strategies such as podcasting. Podcasting can use audio to

assist the visually impaired, but it can also have text captions or a transcript to assist people with hearing loss.

DEVELOP A NEW STRATEGY—PRESENT LIKE A PODCASTER

As a medical communicator, drafting and scripting presentations can become an important part of your job, in addition to making presentations oneself. A great way to learn how to inform, educate and entertain an audience without relying solely on visual aids can be derived from the art of podcasting. So... what is a podcast?

One way to think of a podcast is a television show for the ears. Podcasts are a series of recorded audio files that, in a similar manner to a television show, tend to tell a story with a focus on a specific theme, generally within 25 to 45 minutes. Much like a presentation they can be used to inform, educate, or entertain an audience.

Leaning on lessons learned from professional podcasters and storytellers, the following are some key strategies to make presentations audio friendly.

Scripting the introduction
- Focus on the subject and clarify it to listeners by telling the audience what to expect from the presentation. (eg, "You will learn or discover X as a result of the findings that will be shared today.").
- Insert a question to engage the audience and start the thought process.
- Establishing the concept with the necessary background (eg, "In order to understand X, let me first explain Y.").[7]

Scripting the narrative to ensure the speaker is not reliant on visual aids to explain key findings.
- Using clear, descriptive language that emphasizes the main points.
  - Recommended: the research found that feature X is expressed in 30% of the population and feature Y in 60% of the population, with other features representing 10%, indicating that feature Y is more prevalent in Z population (speaker uses a pointer to highlight information on the chart).
  - Not recommended: if you look at the above pie chart, in which the blue represents feature X and the green represents feature Y, you will see that feature Y is more widely expressed in our population (listener has no concept of how wide the gap in expression is or the expression level of other features).
- Use delivery notes within the script to introduce pauses, emphasis, pace, and other strategies to

prevent the audience from losing focus due to a monotone presentation.[8]

Script the conclusion to emphasize the main point of the presentation.

SUMMARY

With approximately 25% of the US population having a disability, a focus on the use of accessibility features in technology and comprehensive communication is critical for the clear and accurate dissemination of knowledge. For an organization, the benefits of presenting accessible content can range from ensuring that a broad customer base understands the value the organization provides to legally meeting compliance standards. Accessibility solutions, such as using image alternative text and strategically using fonts and color contrasting, are a few of many effective ways to provide accessible content to a larger audience. For medical communicators, strategies in communication, such as descriptive language and the use of storytelling techniques, are vital to ensuring your audience has a clear understanding of the message.

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