

# How Big of a Problem is it, Really?



When you hear the phrase "web accessibility," what comes to mind? Many people assume that it's a highly technical field that only benefits a small percentage of online users. The truth might shock you. In the United States alone, there are:



**More than eight million people with visual impairments.**



**More than two million people who have seizures or epilepsy.**



**More than seven million people who are hearing impaired.**



**Almost twenty million people who are mobility-impaired.**

Keep in mind, these numbers only apply to those who have reported chronic disabilities. Often, disabilities are under-reported, especially among the elderly population. Declines in vision, hearing, and dexterity are quite common as people age but are rarely included in disability statistics. If we also factor in users with temporary disabilities (for example, when someone breaks their wrist and is mobility-impaired until it heals), the numbers grow even larger.

# Which Disabilities Impact Website Usage?



To begin understanding the types of barriers website users may encounter, it's essential to learn about some of the most common disability types. This list is not exhaustive but does cover four of the largest categories.



## Hearing Impairments

Users with hearing impairments may have slight or complete hearing loss. Creating readable text alternatives to any content that has an audio component is an important way to make your digital content more accessible for these users.



## Visual Impairment

Users with hearing impairments may have slight or complete hearing loss. Creating readable text alternatives to any content that has an audio component is an important way to make your digital content more accessible for these users.



## Cognitive Impairment

Of these categories, cognitive impairment is simultaneously the largest and most varied but also the least understood. It is also the category with the least developed best practices. It encompasses issues like ADHD, dyslexia, epilepsy, and low literacy, and each user requires different online accommodations.



## Mobility Impairment

Users with mobility impairments have limited or no use of one or more of their extremities. This includes (but is not limited to) users with missing limbs, paralysis, and tremor disorders. Often, these users are unable to work with a mouse or a touchscreen. Making sure your website can be navigated using the keyboard, foot pedals, or a sip-and-puff tube can help these users to access your content.

# What are some common Accessibility Issues?



If you're having a tough time envisioning what a digital accessibility issue might look like, here are a few scenarios to help.



## Low Contrast

An online store receives a call from a retiree trying to place an order on their website. He attempted to fill out the order form but reports that the order page doesn't have any text boxes where he can add his information. After a long conversation with customer service, both sides discover that the textboxes were actually just too faint for him to see.

### Solution:

The store needs to increase the contrast on its order form (and likely other parts of its website) to ensure that users can see and use the form easily. Otherwise, they will lose out on potentially valuable sales.



## Poor Functionality

A mother contacts her child's school to report that the classroom website is nearly impossible for her to read. Since the font is so small, she is forced to zoom the screen to 200% and now has to scroll right and left in order to read each line. She often loses her place and can't easily get the information she needs.

### Solution:

The school should ensure that their website reflows responsively and that the standard font is larger.

# What are some common Accessibility Issues?



## Chaotic Structure

A backpacker with dyslexia is researching different points of interest along his travel route. He finds a restaurant that he'd like to try, but due to fancy fonts, flashy banners, long and dense text passages, and random popups, he is unable to wade through the website's information to figure out if it's even open when he's in town.

### Solution:

The restaurant needs to declutter their site and make everything clearer for the person to read. By choosing easy-to-read fonts, breaking up long passages into smaller paragraphs, increasing the line spacing, and reducing unnecessary distractions, they can help visitors to find the information they need.



## Screen Rotation

A Paralympic athlete is trying to order new gear from a website. Since her tablet is affixed to her wheelchair, she needs the website to rotate in order to display properly. However, the brand's site is only designed to be viewed in one device orientation.

### Solution:

The restaurant needs to declutter their site and make everything clearer for the person to read. By choosing easy-to-read fonts, breaking up long passages into smaller paragraphs, increasing the line spacing, and reducing unnecessary distractions, they can help visitors to find the information they need.

Of course, these are just a few sample scenarios. Accessibility issues are far-reaching and can come in many forms. It's important to remember that every disability requires special considerations, and there are a number of variations within each category. This means that digital accessibility needs to be customizable so that each user can access the support they need.

# What Website Elements Create Barriers for Users?



Since there are so many types of disabilities that can impact web use, it's not surprising that making a website accessible can be a daunting task. Most websites contain the following types of content and functionalities:

- ✔ **Text**
- ✔ **Links**
- ✔ **Images**
- ✔ **Navigation**
- ✔ **Forms**
- ✔ **Video**
- ✔ **Audio**

Consider, for example, a simple hyperlink. It's one of the most basic but vital types of interactive content on the web, yet it can present many issues:

- ✔ Depending on the color scheme, users with color blindness may not be able to distinguish links from static text if they are differentiated only by color.
- ✔ Also, depending on the color scheme, users with low vision will need adequate contrast between the link text and the background color for the link to be readable.
- ✔ Both blind and mobility-impaired users will need link text that describes what will happen if they activate that link (not just stating, "click here").

# What Website Elements Create Barriers for Users?



Another good example is a website's contact form.

- ✔ Users with low vision will need adequate contrast between the form controls and labels versus the background for the form to be readable.
- ✔ Users with color blindness may need a visual indicator other than color to identify required fields versus optional fields.
- ✔ Users with mobility impairment will find navigating the form easier if fields are stacked on top of each other rather than side by side.
- ✔ Blind users will need clear labels and, in some cases, supplementary instruction within the flow of the form (not off to one side where they may not hear the screen reader communicate it when they need to or may never hear it at all).
- ✔ Both blind and mobility-impaired users will need easy and standardized keyboard navigation to move around the fields and to operate them.

As you can see, there's a lot to consider when it comes to accessibility. But there is good news — you don't have to learn absolutely everything before you get started. Each enhancement that you learn about and implement begins to help users the minute it goes live.

# Who Creates Web Accessibility Standards?



You might be wondering where all of the digital accessibility rules and regulations come from and who keeps track of them. Since the web evolves rapidly and new innovations frequently emerge, accessibility guidelines also must be updated. There are many sources of information, but the most comprehensive are the World Wide Web Consortium's Web Content Accessibility Guidelines, commonly known as WCAG.

## WCAG

The World Wide Web Consortium is an international body that publishes what are generally considered to be the official specifications for HTML, CSS, and several other web technologies. Since 1999, they have also produced the Web Content Accessibility Guidelines (WCAG). WCAG has undergone revisions and currently stands at version 2.1.

The guidelines are broken down into three levels:

- Level A** This is the lowest level and includes relatively easy enhancements to make. This level represents the bare minimum of accessibility.
- Level AA** This is the intermediate level and contains enhancements that are more difficult to implement but also increase accessibility.
- Level AAA** This is the highest level of standards, and they are the most difficult to meet. However, they do yield the greatest accessibility for end-users.

A cautionary note for newcomers to WCAG: the language of the guidelines – on the surface, at least – veers toward being academic and can be off-putting. If you dig one level deeper to the lengthier text descriptions, they are far more reader-friendly. Other accessibility authorities provide checklists and tutorials in plain language that may be easier to understand. See Appendix A for a concise overview of WCAG.

# Who Creates Web Accessibility Standards?



## Section 508

The World Wide Web Consortium is an international body that publishes what are generally considered to be the official specifications for HTML, CSS, and several other web technologies. Since 1999, they have also produced the Web Content Accessibility Guidelines (WCAG). WCAG has undergone revisions and currently stands at version 2.1.

Historically, however, the Section 508 guidelines suffer from two problems:

- They are not as comprehensive as WCAG.
- They have often lagged well behind WCAG in getting updated and, thus, even further behind the ever-evolving web itself.

Any developer or site creator who adheres to WCAG standards will automatically follow Section 508 as well.



# Misconceptions about Accessibility Standards?



Whether discussing WCAG or Section 508, certain misconceptions are common and should be corrected in order to adopt a healthy and realistic mindset about accessibility. Here are a few of the most common misconceptions:

## **First, “meeting standards” and “achieving compliance” can convey that accessibility is a finite pursuit. It’s not.**

Accessibility is an ongoing pursuit and requires permanent changes to your web workflow. As new content and new functionalities are added to any site, they need to be made accessible before going live. Although many organizations and developers face an initial learning curve, the changes to the workflow are not nearly as daunting once new habits are formed.

## **Second, compliance is “a line in the sand that we have to get across.” No, it’s not.**

Accessibility is a spectrum, and every site sits somewhere on it. Every time an accessibility enhancement is made, it pushes a website higher on that spectrum and immediately benefits users. That’s true even before “compliance” of any kind is achieved.

Many organizations and developers see accessibility as disheartening because it can be a long road before they even achieve WCAG level A (let alone AAA). That’s the wrong way to think about it. A better way is that if you make any accessibility enhancement today, your users will benefit today. Make another accessibility enhancement tomorrow, and users will likewise begin to benefit as soon as it’s live.

# Misconceptions about Accessibility Standards?



**Third, if we achieve “compliance,” then we’ll be on strong legal ground.  
Perhaps...or perhaps not.**

The entire concept of compliance has many organizations looking in the wrong direction for trouble. Currently – and with the possible exception of certain government agencies – there is no authoritative body that enforces accessibility guidelines. The real threat is lawsuits. The WCAG guidelines (or others) help to attain a high level of accessibility. Still, organizations should keep their focus where it belongs – on ensuring their users do not encounter barriers when visiting their website.

# Are Accessibility Lawsuits a Real Risk?



In the last twenty years, there have been many high-profile accessibility lawsuits. Recently, the pace of litigation has increased and impacted prominent brands, including Target, Amazon, Bank of America, and Five Guys.

It's unfortunate that litigation has been one of the more effective ways to raise awareness about accessibility and to get companies to take action. Some of that interest is, of course, out of fear. But there's also a positive wave of interest about accessibility taking hold in the zeitgeist.

Although Section 508 may be referenced in some lawsuits, most are rooted in the Americans with Disabilities Act (1990). Its intent is to prohibit discrimination against individuals with disabilities and to ensure that they have the same rights and opportunities as everyone else. While legal action often ensures those rights, we hope that the positive shift toward website owners and designers baking accessibility in from the beginning will become more popular.

## Why do I need an accessibility statement?

The goal of accessibility is to provide equivalent information to users with and without disabilities. One of the most helpful additions any site creator can put on their site is meta-level information about the accessibility of the website in the form of an Accessibility Statement.

An Accessibility Statement alerts users to the current state of accessibility on the site. It can be used to explain accessibility goals as well as the methods being used to achieve that target. It can also acknowledge areas where targets are unmet and convey the plan for resolving those issues.

Although it might seem counter-intuitive to advertise accessibility weaknesses that may still be present on a given site, it can also serve as a powerful gesture of transparency. The information you provide about ongoing enhancements also makes a bold statement about your commitment to inclusiveness.

# Are Accessibility Lawsuits a Real Risk?



## What is the future of accessibility?

Technology evolves at a fast pace and will continue to do so indefinitely. In some cases, new technologies will help with accessibility. However, new challenges will also arise.

WCAG 2.1 was developed as a response to new technologies – mobile, especially – and the accessibility challenges that they create. Issues that now exist due to mobile devices include:

- ✔ Sequencing content so that important elements appear without needing to scroll.
- ✔ Supporting both landscape and portrait orientations.
- ✔ Clearly indicating which elements are interactive.
- ✔ Changing interactive elements to activate on ‘mouse up’ and ‘touch end’ events (rather than ‘mouse down’ and ‘touch start’ events).

Just as mobile phones presented new accessibility challenges, other technologies will do the same. WCAG 3.0 is currently under development and will address emerging issues involving the Internet of Things (IoT) which includes devices such as:

- ✔ Cars
- ✔ Appliances
- ✔ TVs
- ✔ Small Screens
- ✔ Wearables
- ✔ 3D Touch & Pressure

With increased awareness, ongoing education, and the use of helpful innovations like the UserWay widget, we can create a web that works for everyone. The most important step is the first step. If you are already pursuing accessibility, keep going. If you're just getting started, well, just get started. We can get there together, one step at a time.