Accessibility Handbook

monsido®
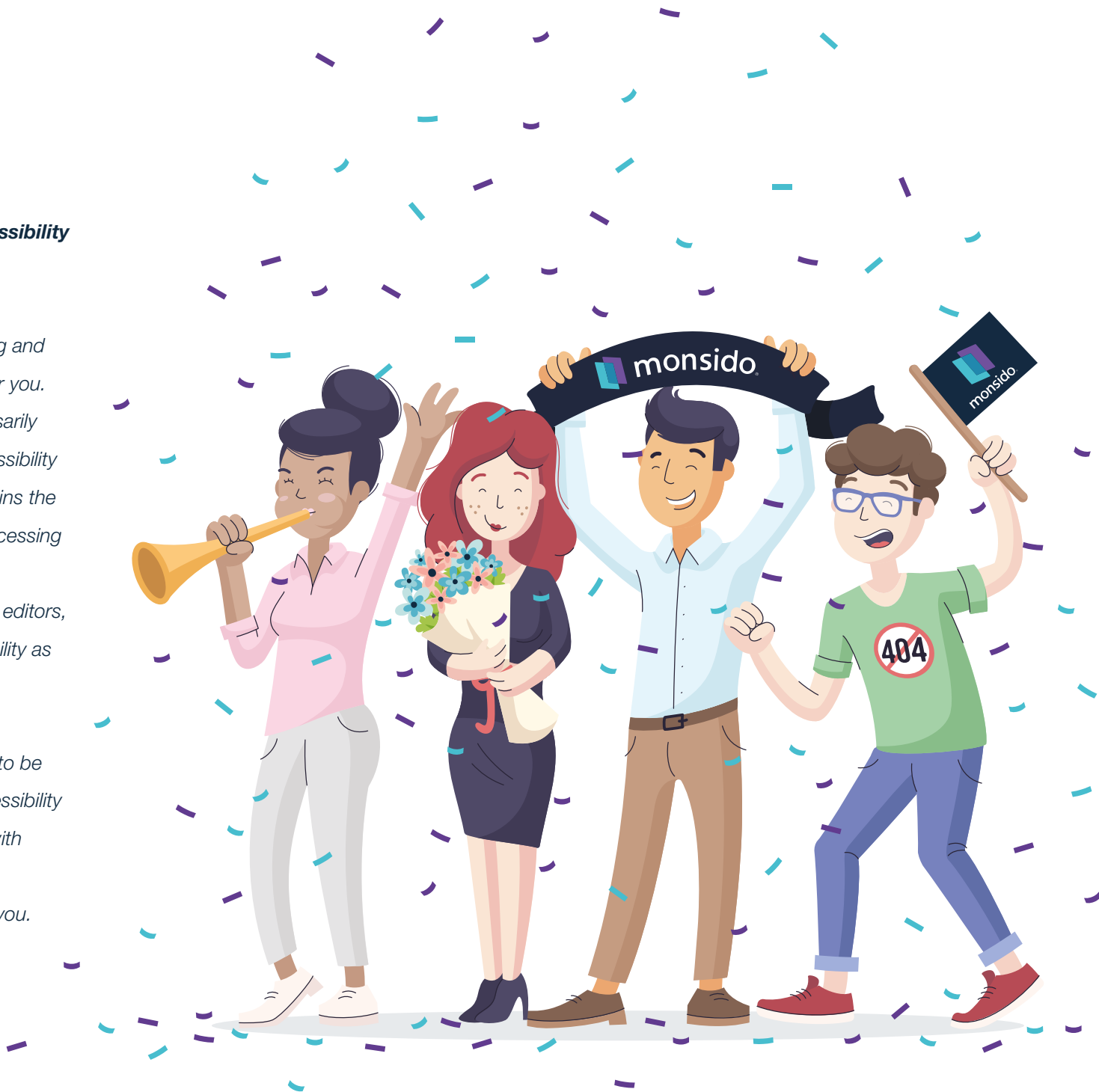
Hello!

Congratulations on getting started with web accessibility for your website!

We know that web accessibility can seem overwhelming and confusing at times, which is why we made this guide for you. The guide is made for web managers who don't necessarily know a lot about accessibility. It outlines why web accessibility is important for your business or organization and explains the major issues preventing people with disabilities from accessing the internet. It also includes sections for individual team members based on their roles, such as developers and editors, and gives you an action plan for implementing accessibility as part of your web strategy.
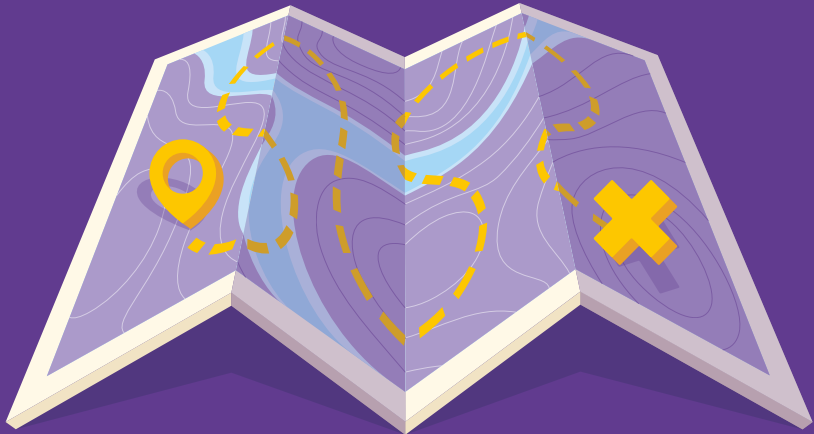
We hope that you will find this guide a helpful resource to be used alongside the Monsido web governance and accessibility tool. Remember, there is no better time to get started with accessibility than now. If you need any assistance using Monsido to improve your website, our team is here for you.

Now let's begin!

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Introduction

When you first start reading about web accessibility, it can seem like a lot of very confusing rules for coding, design, and publishing. However, web accessibility is actually very simple.

What Is Accessibility?

Web accessibility simply means that your website – and everything on it – can be used by anyone regardless of how they use the internet. Some people may need to use a screen reader. Others may not be able to use a mouse and rely on assistive technology. Yet others may need transcripts or subtitles for audio content. If your website is accessible, then all of these people will be able to access and use your website in a meaningful way. Of course, people with disabilities may not always be able to access your website as easily as someone without a disability. For example, it will probably take a person who is blind longer to find content on your website using a screen reader than it would for a sighted person to find the same content.

Around 15% of the world's population live with disabilities and they are the world's largest minority. But they aren't the only ones that web accessibility applies to; web accessibility is for everyone. Accessible and well-structured

web content improves your SEO as it makes websites easier to read by people, as well as search engines. An accessible website brings about a great user experience for everyone and helps open up your website to even more users. Also, we are all temporarily abled. According to the statistics from Disabled World, in countries where the life expectancy is over 70 years, people spend on average about 8 years, or 11.5% of their life, living with disabilities. Aging and injuries can bring about issues in accessing the web, and even able-bodied web users have become accustomed to using digital accessibility features. Features like video captions, text magnification, and voice recognition technology are now commonplace in our everyday lives, helping both users with and without disabilities.

Misconceptions About Web Accessibility

Even though web accessibility isn't a new concept, there hasn't been much discourse about it over the years and the topic is often widely ignored as part of website development and strategy. Because of this, there are still a lot of pervasive misconceptions about web accessibility. Some of these misconceptions actually hold businesses and organizations back from implementing accessibility policies.

It is important to realize that some web accessibility misconceptions do have a basis in the truth. For example, it used to be very difficult to create a complex, attractive website design which was also accessible. However, with all of the advancements in web technology over the years, this is no longer the case. Regardless of the size or scope of a website, there is no reason it shouldn't be made accessible to all. Let's address each of the main accessibility misconceptions one by one to make sure none of them are holding you back from implementing effective accessibility policies.

1) People with Disabilities Aren't Using the Internet or My Website

Contrary to common belief, people with disabilities do access the internet. In fact, they often rely on the internet much more than the general population. For example, people with mobility issues often rely on online shopping to meet many of their basic needs because it is easier to order online than to go shopping at malls, supermarkets, etc.

Another misconception is for people to think, "people with disabilities don't use my website." In some cases, this may seem like a logical assumption. If your website sells skateboards, for example, then you probably aren't targeting customers with visual disabilities. However, you don't want to discount the woman with visual impairments who is shopping for a skateboard for her niece. And one quick YouTube search will show you how many people with physical or cognitive challenges are participating in sports like skateboarding. Never assume that someone isn't going to be interested in your website because of a disability.

2) Accessibility Means a Dull Website

In the past, it was very difficult to make a complex web design which was also accessible. For example, screen readers of the past only read across the page. So, a multi-column page would result in accessibility issues.

As a result, many websites which focused on accessibility (such as the websites to major disability organizations) were very boring. This led to the belief that all accessible websites had to be boring.

Luckily, this is no longer the case. Assistive technologies like screen readers have improved. Web technologies like CSS, browsers, and XHTML have also improved. Accessibility now depends on having good code and simple design. And simple design does not mean boring design!

In fact, it is nearly impossible to differentiate between accessibility and good user experience. The same design components which make your website usable to non-disabled users – such as clear navigation and consistent design – will also make it accessible to users with disabilities.

3) A Text-Only Version of the Website Is a Suitable Solution

Text-only websites don't have any images or graphics, and usually just have a single-column layout with little use of color and very simple navigation. Because many of the common accessibility issues have to do with images or complex design, it may seem like having a text-only version of the site is a good solution for all your accessibility issues. This couldn't be further from the truth though.

The first issue with the text-only approach is that it assumes people with disabilities are using text-only browsers. In actuality, people with disabilities are using the same browsers as people without disabilities. If you build a separate version of the website with just text, you are probably going to lose some of the non-text functionality and features which are found on the main version of the website. The text-only version of the website may be accessible, but it is not comparable to the main website. People with disabilities shouldn't be deprived of anything your website has to offer because of how they access the website!

Even if your text-only version of the website is comparable to the main version, you are still segregating users. Think back to the "Separate but Equal" laws in the United States. If we do this with disability access to the internet, we are separating a group of people from the public and stigmatizing them. Further, we know that separate does not mean equal. If you have two versions of your website, chances are that the text-only version isn't going to get updated as frequently as the main version.

Another issue with text-only versions of websites is that they only address issues for people with sight-related disabilities. Having a text-only website does not mean that it will be accessible to people with other disabilities! Considering how diverse internet users are, you want to make sure your website is in compliance to standards that make it accessible to everyone.

Those are just some of the issues with having a text-only version of websites. Other issues include:

- How will you handle search engine indexing?

- Who will be in charge of keeping the text-only version up to date?

- How will people with disabilities navigate through your main website to the text-only version?

As you can see, it is better to make your main website accessible rather than trying to make a separate alternative for users with disabilities.

4) Accessibility Is Expensive and Difficult

Getting started with accessibility can seem like a big task, but it is by no means difficult. The bulk of the work is going to be in educating yourself and staff about accessibility and taking the time to create clear policies and procedures. Investing in a tool like Monsido can help reduce the burden and take the guesswork out of accessibility. While the tool does mean another expense, it is more affordable than hiring an extra staffer to handle accessibility issues.

The benefits gained by improving accessibility – both in terms of legal compliance and website improvement – are well worth this investment. In fact, improving accessibility can pay off financially by increasing your audience and reducing future need for website maintenance because of good coding and website policies.

5) Accessibility Is the Responsibility of Web Developers

A lot of web accessibility has to do with good coding, so the bulk of the task does rest on developers. However, there is a lot more to accessibility than just code. Editors, designers, and managers also all need to be thinking about accessibility.

Note that accessibility is not a bunch of separate issues or tasks, with each team worrying only about their own tasks. There are many interdependent aspects of web accessibility. For example, it is the responsibility of developers to make sure all data tables have the proper tag, but it is up to web editors to give a description of the data in the <caption>. By creating clear policies, you can ensure that your teams are working in sync and reduce the burden on all of them.

6) Web Accessibility Is Just for People with Visual Impairments

When talking about web accessibility, many people immediately think about sight impairments and screen readers. Yes, this is a major focus of web accessibility and will likely become more important as the population ages and faces vision problems. However, blindness and visual impairments are only one part of accessibility.

The disabilities which need to be addressed in web accessibility can be divided into 5 major groups:

Hearing	Sight	Neurological	Cognitive	Physical

As we will talk about later in this guide, people with these types of disabilities can face very different problems when accessing the web. Simply making your website accessible to screen readers is not a solution that ensures accessibility to all. Remember, web accessibility is about creating ONE web experience for everyone – regardless of ability or disability.

Why Should You Worry About Accessibility?

Many businesses and institutions only get started on web accessibility because of laws which require them to do so. There have also been many lawsuits filed because of accessibility issues. Legal requirements and threat of repercussion are certainly strong motivators to start working on web accessibility, but they are by no means the only reason to make sure your website is accessible!

Aside from being the moral thing to do, there are many fringe benefits that your business or organization can enjoy by building an accessible website, including:

Increased audience: Users with disabilities represent a large portion of internet users. By building an accessible website, you open yourself up to a much larger audience. Word-of-mouth marketing is often very strong in communities with disabilities and they also are often loyal to brands which ensure accessibility.

SEO: Many web accessibility standards overlap with good SEO practices. For example, Google Webmaster Guidelines describe practices like ensuring descriptive alt and title attributes, checking for correct HTML, and offering a site map to users. All of these (and many more) are also important for accessibility.

Improved user experience and quality assurance: Accessibility means creating a website which provides a good experience for everyone, regardless of how they must access the internet. When you ensure a good experience for users with disabilities, you can rest assured that your overall website experience and quality will improve.

Strengthen brand image and reputation: Would you rather build your image as a brand which believes in equality and accessibility for everyone, or as a brand which excludes people with disabilities? Get your PR team involved in your web accessibility plans so the public can know what good you are doing.

Technical benefits: Much of web accessibility has to do with good coding. This can result in a slew of technical benefits for your website such as reduced server load, better interoperability between browsers and devices, and ensuring your website is ready for new web technologies.

Overview of Accessibility Issues by Disability

Before you start looking at the individual web accessibility guidelines, we recommend educating yourself and your staff on how people with disabilities access the internet and the hurdles they often face. This will help you understand why the guidelines are written as they are and can also be very useful in helping you establish your web accessibility processes.

Accessibility Issues for the Visually Impaired

People with visual impairments, like blindness, use screen readers and refreshable braille displays controlled by screen readers to access the internet. A screen reader is a software which works with the operating system to provide information about the icons, menus, files, folders, and dialogue boxes. Because screen reader users don't rely on a mouse, they generally rely on various keyboard commands to complete tasks. For example, a command may allow a reader to navigate a webpage, to read part of a document, or make a selection. All operating systems now come with screen readers. There are also some commercial screen readers, such as the popular JAWS software.

Screen readers can read all or part of the visible text on a page, read some text which is not visible to sighted users (such as alt text), list headers, list links, and detect text formatting within a document. In order to do all of these things though, the website must be coded for accessibility.

Having well-structured code is extremely important for screen readers to work properly because the presence of certain code will trigger a command. For example, if a screen reader detects the code for a table of information on a page, it will trigger commands such as ones which allows the table to be navigated horizontally or vertically.

Common Accessibility Problems for the Visually Impaired

Layout: Screen readers render content based on semantics rather than styles from the Document Object Model (DOM), which is an API for HTML and XML documents that represents the structure of the page and the content of a document as objects. Websites should have their HTML written in a semantically correct manner so that screen readers can output text to speech based on the outline and structure of the content. Software like JAWS and NVDA also rely on semantic information from websites' HTML to provide alternative navigation controls on the page, list out content headings, etc. Examples of non-semantic elements are <div> and <span>.

Headings: Sighted people rarely read an entire webpage. Instead, they scan the page looking for the parts which interest them most. People with visual disabilities are also able to scan web pages for pertinent information by using their screen reader to list headings. If the headings aren't used properly (or at all), then the user with visual impairments will not be able to find what he/she is looking for on the page. Never use headings decoratively. They should also be used in a logical manner descending on the page (H1, H2, H3, etc.)

Meaningful link text: When adding links to a webpage, ensure that the link text is unique and clearly identifies the purpose of the link so that users using assistive technology understand what it is for and can decide if they want to follow it. Assistive technology can inform users of the list of links on a web page, but the text of the link needs to be as descriptive as possible and should be able to be deciphered by users without additional context. Link text like 'More' 'Open' or 'Click here' are vague and do not provide users with information on the link's destination. But while link text should offer users information about the link, it is also best practice to keep them short, for example, 'Read the blog post' instead of 'Click to read more about it in this blog'.

Navigation: For people with visual disabilities, website navigation must be coded so that they are readable by assistive technology. Adding ARIA landmark roles to the navigation code helps assistive technology identify that that specific webpage element has the role of a menu. ARIA landmark roles classify and label sections of the page, which enables the visual information of the page to be represented programmatically for assistive technology. Navigation landmarks also allow users to skip through the navigation if they don't need it as they are browsing. Without it, users will have to listen to the list elements in the navigation every time they load a new page. A 'Skip Navigation' or 'Skip to Content' link should be provided to allow users of assistive technology to bypass the navigation and go straight to the content of the webpage.

Navigation must also be in a consistent and predictable location on the layout of the website so that users with visual impairments can easily locate them with a screen reader or a screen magnification. This applies to both the menus and the 'Skip Navigation' links.

JavaScript: JavaScript used to be completely inaccessible to screen readers. Now, most screen readers can access JavaScript. However, it is important to note that some people may be in an environment (such as a corporate workplace) where JavaScript is turned off. Users may also be using older versions of screen readers which can't handle JavaScript. For this reason, it is important to make sure your website still works without JavaScript.

Images with no or inaccurate alt text: Web editors need to be careful about how they assign alt attributes, also known as alt text, to images. The alt text should clearly describe what information the image conveys.

Example of good and bad alt text
Bad: A photograph of puppies
Good: Three Labrador puppies sitting in a basket

Your editors also need to know that screen readers will first read the alt text and then the captions under the image (if it has one). If editors make the caption and alt text the same, then the user will hear the same information twice which makes for a bad user experience. Alt text also applies to complex images made to convey a significant amount of information. Images like graphs, charts, diagrams, maps, infographics, or illustrations require alt text, but since these images are more detailed, they require a two-part text alternative with the first part being a short description to describe the image and the second part describes the essential information that the image is trying to convey. See an example of how to write a good long description on the W3C website.

Keyboard accessibility: People with visual impairments navigate sites using keyboard shortcuts. These keys move between focusable elements on the page such as links and buttons but sometimes, these elements may not match the visual order of the page. To test if your site is keyboard accessible, try to navigate your site without using a mouse.

Poorly structured forms: Most websites have form fields for users to fill out (a search box being one example of a form) and these form fields often present visual accessibility issues. One of the biggest issues with forms is that they aren't labeled correctly. Each field needs a label for the screen reader to read so the user knows what to fill in there. The buttons also need clear text so the user knows what to select after completing the form. If you are using CAPTCHAs, then there needs to be an audio alternative for visually-impaired users.

Also think about what happens when the form is filled out incorrectly. Commonly, websites will return the form with the incorrect fields in red. This obviously presents an accessibility issue for the people with disabilitiest who won't be able to see the red field. Instead, there should be a text which explains which part of the form returned the error.

Also note that decorative images should also have an alt text. The value must be null so that it is ignored but it must still possess an alt text at all times (alt=""). If a logo appears multiple times on a page, then only the first appearance should have an alt text and the others should be null.

Accessibility Issues for Other Visual Impairments

It isn't just blindness which needs to be considered when making websites accessible for the visually impaired. Many people suffer from low vision and its prevalence is only going to increase as the population ages. People with low vision often use screen magnification tools to use the internet. Unfortunately, a lot of websites don't work very well with screen magnifiers. For example, when the text is resized, it may break the layout of the site so the user annoyingly has to scroll to track text. Sometimes navigation doesn't work at all with screen magnifiers when the site isn't designed for accessibility.

Many visual conditions (including cataracts, glaucoma, and retinitis pigmentosa) make it difficult to view contrast. Designers need to consider this when coming up with the color scheme for a website, especially in regards to website forms. Color blindness is another common visual impairment and designers need to be aware that many people won't be able to see certain colors (green and red being the colors which cause the most problems).

Accessibility Issues for the Hearing Impaired

The main issue for deaf and hearing-impaired individuals when accessing the web is video and audio content. This accessibility issue can easily be addressed by providing captions for all audio content. However, attention should be paid to how the captioning is done. For example, does the captioning cover important parts of the screen?

If you make an interactive tool, then you may also need features for the deaf. For example, many online tools use sounds to notify users of messages. An accessible tool would offer hearing-impaired users an alternative, such as a visual cue that appears on the screen instead of the audio cue. This is a good example of how good user experience and accessibility overlap because many users without hearing impairments may prefer the visual cue, such as for when they are working in a public space and must have their sound turned off.

Accessibility Issues for the Physically Disabled

In terms of accessibility, the physically disabled can see and hear everything on a website. However, they may not be able to control the mouse very well or at all. In order to operate a keyboard, the user may rely on adaptive technologies like mouth sticks, "Puff 'n' Sip" systems, voice controls, or eye-tracking software.

Of these, mouth sticks are one of the most popular options because they are low-cost and easy to use. As the name implies, a mouth stick is a stick which is held in the mouth. The individual can then use the mouth stick to select commands or even manipulate a trackball mouse, depending on how much control the individual has. You can easily test how accessible your current website is for the physically disabled by trying to access it using a mouth stick. You'll quickly realize that issues can make your website very difficult and exhausting to use for people with physical disabilities.

Common Accessibility Problems for the Physically Disabled

Actions which require precision: For example, a person with arthritis may have difficulty clicking on navigation links which are very close together. Drop-down menus are particularly problematic.

Difficult or inconsistent navigation: Bear in mind that people with motor disabilities often rely on keystrokes to navigate around the internet. If your navigation requires multiple clicks to get to pertinent information, it will be very annoying and possibly even tiring for people using adaptive technologies like mouth sticks.

Actions which require a mouse: Some people with disabilities are not able to use a mouse and rely on keyboard commands to use the internet.

Time-limited actions: Even with the help of adaptive technologies, it can still take people with disabilities longer to fill in forms on websites. If these are time-limited, then there should be an override.

Pop-ups that are difficult or impossible to close: You can still use pop-ups on your website. However, be sure that they can easily be closed with keyboard commands and also that the close button is easy to hit with a mouse.

Accessibility Issues for Cognitive and Neurological Impairments

There is a huge range of cognitive and neurological disabilities, and they can vary significantly in their severity. Rather than trying to list all of these disabilities, for the purpose of web accessibility is it better to list the types of challenges they present when using the web.

Common Accessibility Problems for Individuals With Cognitive or Neurological Disabilities

Certain fonts and color choices: Even if your styling can be overridden, it doesn't mean all users with disabilities will do so. Designers should be aware that certain fonts (such as those in the Sans Serif family) are considered universally easier to read by people with dyslexia. Also, too much contrast (such as black text on white) can cause text to blur and cause issues for people with dyslexia.

Flickering content: Flickering content can be very distracting for people with cognitive disorders. And, for some types of neurological disorders, it can even induce seizures.

Complex navigation: This is confusing for people with cognitive disorders. For a good user experience for everyone, navigation should be simple and consistent.

Custom styling which can't be overridden: People with dyslexia and other cognitive disabilities may find certain fonts particularly difficult to read. They may override your website's styling so they can use their preferred font.

Layout issues: Text should be broken up into smaller sections with significant amounts of white space between them to improve readability. Two-column layouts can be very problematic for certain cognitive disorders. For people with dyslexia, justified text can make it even harder to read words on the page.

Web Accessibility
Standards Across the Globe

Getting started with web accessibility will largely depend on legal requirements your website may need to meet, your goal, and your budget. One of the first steps in starting this journey would be to learn about the accessibility regulations of the country your website operates in. Different countries will have different sets of rules for what they deem as important in regards to the web use of people with disabilities. However, most accessibility regulations will refer back to the internationally recognized WCAG standards which we'll introduce first.

WCAG

The World Wide Web Consortium (W3C) is the leading group which sets international standards for the web. In 1997 they launched a project called the Web Accessibility Initiative (WAI). Two years later, they released the Web Content Accessibility Guidelines (WCAG). The guidelines apply not just to websites but also to mobile applications, PDFs, and other digital platforms. WCAG became the de facto standard and is used by many countries.

In 2008, the WAI updated the standards by publishing the WCAG 2.0. These standards replaced the previous standards of WCAG 1.0. Then, in 2018,

WCAG 2.1 was published, extending 2.0 to include mobile technology, cognitive disabilities, and low vision.

The WCAG has four principles which state that websites must be Perceivable, Operable, Understandable, and Robust (POUR).

The Four Principles of Accessibility (POUR)

The principles of web accessibility are the foundations of content produced for the web and for anyone who wants to use the web.

Perceivable: Perceivability refers to the information and elements of user interface that must be presented in a manner that can be perceived by the senses and that nothing is left undetectable or invisible. To most web users, perceivability is based primarily on visuals, but for those that are unable to, sound and touch are used instead.

Operable: Interactive interface elements such as controls, buttons, navigation and more should be operable. This means that a user must be

able to operate interface elements by first identifying them, and for most by physically clicking, tapping, swiping, or rolling. For those that can't interact in these ways, they should be able to use voice commands or other assistive devices like head wands and eye trackers.

Understandable: This means that technology should be clear and consistent in the presentation and format, with predictable patterns of usage and design. End users should have no issue in comprehending the meaning and purpose of the information presented in the content while discerning the user flow and operation of the interface.

Robust: Robustness is the ability for content to function reliably by a wide variety of technologies, including assistive devices.

In WCAG 2.1, there are a total of 13 guidelines under each of these principles. In order to make sure a website is meeting these guidelines, there are a total of 78 testable "success criteria."

When checking to see if your website is meeting WCAG 2.1 guidelines, it will be tested against these success criteria. Note that some of the tests aren't as simple as pass/fail. Some tests require a human check to make sure the website meets the guideline.

For example: One of the guidelines under the "perceivable" principle is that websites should, "Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language." If you do not have alt test for images, then the test will come back as an error. Remember that all images, including

ones that are purely decorative, will need an alt text. A manual human check should be done to determine the nature of the images and to decide what should be perceivable and what can be ignored.

The Levels of Web Accessibility

There are three levels of web accessibility established under WCAG 2.1. Level A is the least strict. Level AAA is very strict. For example, to be in compliance with AAA standards, your website would need to have a prerecorded sign language interpretation for all prerecorded audio in media. You have probably seen this on TV broadcasts of important government announcements; the interpreter is shown in a small box in the corner of the screen.

If you meet level AA, it means that you meet all of the criteria of level A and level AA. If you meet level AAA, it means meeting the criteria of levels A, AA, and AAA.

It is very difficult to always be in compliance with level AAA. Most companies and organizations worrying about accessibility should strive for level AA. At this level, they will be legally compliant in most countries, can avoid lawsuits, and provide a good experience for all users.

WCAG 2.0 Level A and AA guidelines are almost universally adopted as the minimum conformance to make web sites accessible to people with disabilities.

WCAG 2.2

In early 2020, the Accessibility Guidelines Working Group (AG WG) announced the first public working draft of the WCAG 2.2. This working draft covers the potential success criteria that were considered during the development of WCAG 2.1 but were not published in the 2.1 guidelines due to the need for more time to develop the criteria and for other specifications in WCAG 2.1 to mature. The latest working draft of WCAG 2.2 was released in August 2020 and outlines nine new success criteria and one updated current success criteria. Learn more about the success criteria updates in this article.

WCAG 2.2 is built upon WCAG 2.1 and 2.0 making it backward compatible with WCAG 2.1 and 2.0. It is also expected that any accessibility legislation that references WCAG 2.0 or 2.1 will eventually refer to 2.2 once the new guidelines are published. So websites that are required to conform with either WCAG 2.1 or 2.0 will be able to update their content to WCAG 2.2 standards without affecting their conformance.

WCAG 2.2 is still a working draft and is currently in wide review, with the AG WG reviewing any comments received. It is not the final recommendation. The estimated publication date of the guidelines is in July 2021.

WCAG 3.0

In 2021, the World Wide Web Consortium's Web Accessibility Initiative (WAI) published the first public working draft of WCAG 3.0. However, this draft is far from finished and is not expected to advance to WC3 recommendation for a few more years. There is also no established deadline for the publication of this version of the guidelines. The good news is, this planned major revision is intended to be easier to understand than WCAG 2 and more flexible, meaning it will seek to address many different types of content, apps, and tools, as well as organizations and disabilities.

It is important to note that WCAG 3.0 will not supersede WCAG 2.2 or previous versions, but rather it is an entirely new and alternative set of guidelines. It will be a long wait for the new guidelines to be reflected in international law, and it will be very interesting to see how the WAI position them in order to make their purpose clear and encourage their adoption.

The United States

In the United States, there are different standards that you will need to meet in regards to the nature of your website and the organization you own. The two standards are Section 508 of the Rehabilitation Act and the American With Disabilities Act (ADA).

Section 508

In 1998, President Clinton signed the Workforce Investment Act into law. The law made some amendments to the Rehabilitation Act, including Section 508 which relates to information technology.

Under Section 508 of the law, all federal agencies had to make their electronic documents and information accessible to the disabled. Section 508 is only required by federal agencies in the United States, so it doesn't affect private entities or other countries. However, the US government

has huge purchasing power, so many companies and organizations around the globe strive to be Section 508 compliant. Section 508 does not explicitly refer to organizations that receive federal funding, but it extends through other laws like Section 504 and the Assistive Technology Act that clarify the need for web accessibility for federally funded programs.

The Americans with Disabilities Act (ADA)

Title III of the Americans with Disabilities Act (ADA) mandates equal opportunity for individuals with disabilities in areas of public accommodation. Businesses, state, and local governments, and non-profit service providers are legally required to remove any barriers to access that would limit a person's access to that business's goods or services.

The ADA was introduced in 1990, way before the internet boom, so the original premise of the act was based on actual physical barriers such as having the need for wheelchair ramps to shops, etc. In 2010, the US Department of Justice (DOJ) released an Advanced Notice of Proposed Rulemaking. This broadened the language in the ADA to encompass accessibility for electronic and information technology, including both public and private web entities. The specific regulations are still being determined by the DOJ, but with a recent slew of ADA lawsuits targeting high-profile websites and applications, it is clear that any web discrimination will not be tolerated.

Section 508, or the ADA: Which Should I Adhere To?

The ADA is a civil rights law that encompasses the broader reach of society to protect individuals with disabilities against discrimination in all areas of "public accomodation" in regards to commerce. Section 508 is a federal law that requires information and communication technology (ICT) developed, procured, maintained or used by federal agencies to be accessible to people with disabilities. It is important to note that in early 2018, the Section 508 standards underwent a refresh whereby the standard for judging accessibility moved to reflect the more principle-based criteria from the WCAG 2.0 AA standard. Due to this update, your website should at minimum adhere to WCAG 2.0 Level AA to be compliant under Section 508. In addition, the Section 508 standards include functional performance criteria. These cover functional operation of the website, and information or support documentation requirements related to user guides, installation guides, etc.

Which of these standards should you use? It depends. If you are in the United States and working with a government entity, then you'll need to make sure you are in compliance with Section 508. As one developer wrote, he uses Section 508 if "the website will be touched, in any way, by people who work for the federal government or get money from the government."

As compared to Section 508, the ADA is a broader requirement for the civil rights protection of people with disabilities and their participation in commerce. While the regulation of guidelines for specific entities like websites are still being developed, the general rule of thumb is to refer to WCAG 2.0 level AA standards to remain compliant until the DOJ defines the regulations.

Canada

Canada has a long history of human rights laws against the discrimination of people of differing abilities and many Canadian provinces have their own laws in place governing accessibility, including that of web accessibility.

The Accessible Canada Act

The Accessible Canada Act (Bill C-81), also known as the Act to Ensure a Barrier-Free Canada, is Canada's first federal accessibility legislation and is built on the Canadian Human Rights Act that prohibits discrimination based on disability. The act came into force on July 11, 2019 and its purpose is to make Canada barrier-free by January 1, 2040. The act is meant to create national disability standards, identify and remove accessibility barriers, as well as prevent new barriers in areas under federal jurisdiction. The Canadian government, parliamentary entities and federally-regulated private sector organizations are obligated to comply.

Under this act, information and communication technologies, including digital/ web content and technologies used to access it, is covered.

Ontario

One of the main accessibility laws that apply in Canada is the Accessibility for Ontarians with Disabilities Act (AODA). The goal of the AODA is to develop, implement and enforce accessibility standards in the province before 2025. The standards are compulsory for government, businesses, nonprofits, and public sector organizations, and they can be categorized into 5 areas of daily life: customer service, information and communications, transportation, employment, and design of public spaces. Web accessibility is categorized under information and communications and follows the WCAG 2.0 level AA as the standard of conformance. By January 1, 2021, all websites and web content had to conform with WCAG 2.0 Level AA, excluding live captioning and pre-recorded audio descriptions.

Europe

The directive (EU) 2016/2102 of the European Parliament and of the Council on the accessibility of the websites and mobile applications of public sector bodies, also known as the European Union (EU) Directive on the Accessibility of Websites and Mobile Applications, was created as part of the EU Commission's work on developing societal and digital inclusivity within the European Union. The directive aims for the standardization of accessibility laws across the EU and came into effect on October 2016. The Directive covers the accessibility of websites and mobile applications of public sector bodies for persons with disabilities.

The directive will be based on the four principles of the WCAG 2.1, which will thus require public sector websites to ensure that they are Perceivable, Operable, Understandable and Robust. The expected standards that member states will have to comply are the WCAG 2.1 Level AA as a minimum. The directive, unlike a regulation, is not imposed as a law but instead binds member states to the adoption of it into national law.

The directive is expected to be adopted by EU member states with this timeline for compliance:

- **New public sector websites had to conform by September 23, 2019**
- **All public sector websites had to conform by September 23, 2020**
- **All public sector mobile apps must conform by June 23, 2021**

Member states will be required to monitor and report the accessibility of the websites and mobile apps of public entities.

Australia

The main Australian website accessibility law is the Disability Discrimination Act 1992 (DDA), which requires equal access to goods, services, facilities and access to public premises for people with disabilities. This Act applies to all individuals and organizations that develop websites or web resources that maintain a web resource on a server located in Australia. Under these requirements, the DDA is relevant to websites that pertain in any way to employment, education, provision of services, banking, insurance or financial services, entertainment or recreation, telecommunication services, public transport services, government services, and administration of federal laws or programs. In regards to the provision of information, goods, services and facilities, the internet can be seen as a service in itself and the fair use of it is therefore also covered by the DDA. Disability Discrimination Act, Advisory Notes on World Wide Web Access - Version 4.0 was released in 2010 as an update that contained the guidelines for web accessibility. This document requires web content to adhere to WCAG 2.0 levels A and AA as a minimum.

New Zealand

In July 2019, New Zealand enforced updated versions of their web standards, including the Web Accessibility Standard 1.1 and the Web Usability Standard 1.3. These standards define how government websites should be made accessible and usable by everyone, including people with disabilities. These updates were made to incorporate the WCAG 2.1 as the latest version of the international standard for accessibility.

Asia-Pacific

The regulations for web accessibility differs between the countries in this region, but there is increasing awareness on the subject. In fact, around 84% of Asia-Pacific countries have committed to creating more inclusive societal practices by empowering individuals with disabilities. Below are a few examples of the rules and regulations that some countries in the APAC region have begun to enforce.

Republic of Korea

The Republic of Korea adheres to the Korean Web Content Accessibility Guidelines 2.1 which standardizes the technical specifications on how to create websites that are accessible to people with disabilities. The Guidelines have been developed in accordance with the success criteria level A of the WCAG 2.0.

Japan

Japan adheres to the Japanese Industrial Standard JIS X 8341 which specifies the ICT accessibility guidelines and recommendations for older persons and persons with disabilities. It was developed in 2004 with several updates. In 2010, the JIS X 8341-3 was refreshed in accordance to WCAG 2.0. These guidelines are mandatory for national and local government agencies, but voluntary for private companies.

China

China has their very own Voluntary Web Accessibility Standard which is derived from early versions of WCAG 2.0. It is a voluntary standard applicable to public website owners, website managers, and web developers.

Web Accessibility Roles

To ensure success of your web accessibility project, there must be clearly-defined roles. This ensures that team members know what is expected of them and can be held accountable.

It is important to note that there is a lot of overlap in web accessibility. For example, almost all team members will need to work together to ensure that criteria 2.4.6 AA is met. This criteria is about headings and labels. Architects need to make sure that the headings make sense (such as in a Table of Contents). Designers need to make sure that the headings are styled in a way which is easily readable by people with disorders like dyslexia or low-vision. The developers need to code the headings properly so they can be perceived by assistive technology, and the editors are in charge of making sure that the headers are actually used properly when creating new content.

Manager

As a manager, you will need to have a thorough understanding of all of the web accessibility criteria which your website must meet. Note that this does not mean you need to understand every bit of code and how it is written. Rather, it means that you understand what tasks are involved so you can make sure they are covered by the appropriate team members.

Some of the key roles managers have in web accessibility include:

- Setting milestones and ensuring that they are being met

- Educating team members about accessibility

- Getting tools and resources

- Assigning roles and tasks

- Setting a budget

- Planning and providing accessibility training to the other roles in the team, either via in-house resources, courses, or by hiring an accessibility consultant, so that they are familiar with web accessibility best practices.

Website Architect

One of the biggest issues that people with disabilities face is bad navigation. This is an issue across multiple types of disabilities. For people with visual impairments, bad navigation makes it difficult to find content they are looking for. For people with disabilities who use assistive technologies like mouth sticks, bad navigation can mean they get tired from having to excessively click to get to their desired page. And, for people with cognitive disabilities, bad navigation can make a website confusing. For these reasons, website architects play a vital role in ensuring an accessible website.

Website architects also act as a bridge between the design teams and the technical teams. The architect makes sure that the designers are organizing content in a usable way, and ensure that the technical team is coding the designs so it is accessible to people using assistive technologies.

The main thing that website architects will need to ensure is that there are multiple ways of finding information on the website. For example, some users may rely on the search function to find information. Others may want to browse through a list of articles. Others may want to use categories or tags to find information. Again, this is good practice for a good user experience for everyone, not just for people with disabilities.

Some of the key roles website architects have in web accessibility include:

- Ensuring that information can be found in multiple ways on the website.

- Ensuring that all information is conveyed with text and/or programmatically and not just with styling.

- Ensuring that web pages have titles which describe the topic or purpose.

- Establishing a system of headings or labels which make it easy to find information on a page.

Web Designers

When talking about a designer's role in web accessibility, it is usually issues related to visuals which come up. However, it isn't just people with visual impairments who suffer from inaccessible design. For example, people with jerking disorders like Parkinson's or people using assistive technology like mouth sticks can have trouble selecting buttons which are placed too closely together. Another example would be people with dyslexia who can have issues with certain styling, such as justified text. Even deaf or hearing-impaired users can suffer from poor design choices. For example, if your website has a chime to notify users of a certain function, deaf users wouldn't be able to hear it. As you can see, website design is something which affects more than just visually-impaired users.

Some of the key roles designers have in web accessibility include:

Consistent design: When navigation changes throughout the website, it can be very confusing for users with visual disabilities and users with cognitive disabilities. Other design elements, such as icons, forms, and error notifications, should also be consistent to avoid confusion.

Navigation: There should be multiple ways of finding information on the website, such as search, a site map, tags, and the page hierarchy.

Text resizing: Text should be able to be resized up to 200% without losing functionality (WCAG 2.1 level AA standard).

Blinking content: Content should not blink more than three times per second. Otherwise it could cause an epileptic episode for people with epilepsy.

Fonts: Certain fonts are more readable by people with dyslexia.

Headings and labels: Designers should organize content into sections and identify these sections by headings and labels. The headings and labels should have meaningful names and be organized in a hierarchy.

Images of text: Text should always be used to convey information. If an image contains pertinent information (such as a Buy button), then the info must also be conveyed with text.

Links: Link text should make sense out of context so users understand where the link will take them.

Interactive elements: These should always have text which describes their purpose.

Skip links: Keyboard users should be allowed to skip over repetitive blocks of content, such as headings or menus.

Visual orientation cues: This is already part of good website design practices. Designers should use visual cues to indicate different types of content, such as using styling to indicate a header and background color to indicate menus. The most important information should be in prominent areas of the page.

Color and contrast: The choice of color and contrast needs to be made with sight-impaired individuals and people with certain cognitive disorders like dyslexia in mind. Level AA standard states that text and images of text should have a contrast ratio of at least 4.5:1.

TRY OUT
our Color Contrast Checker!
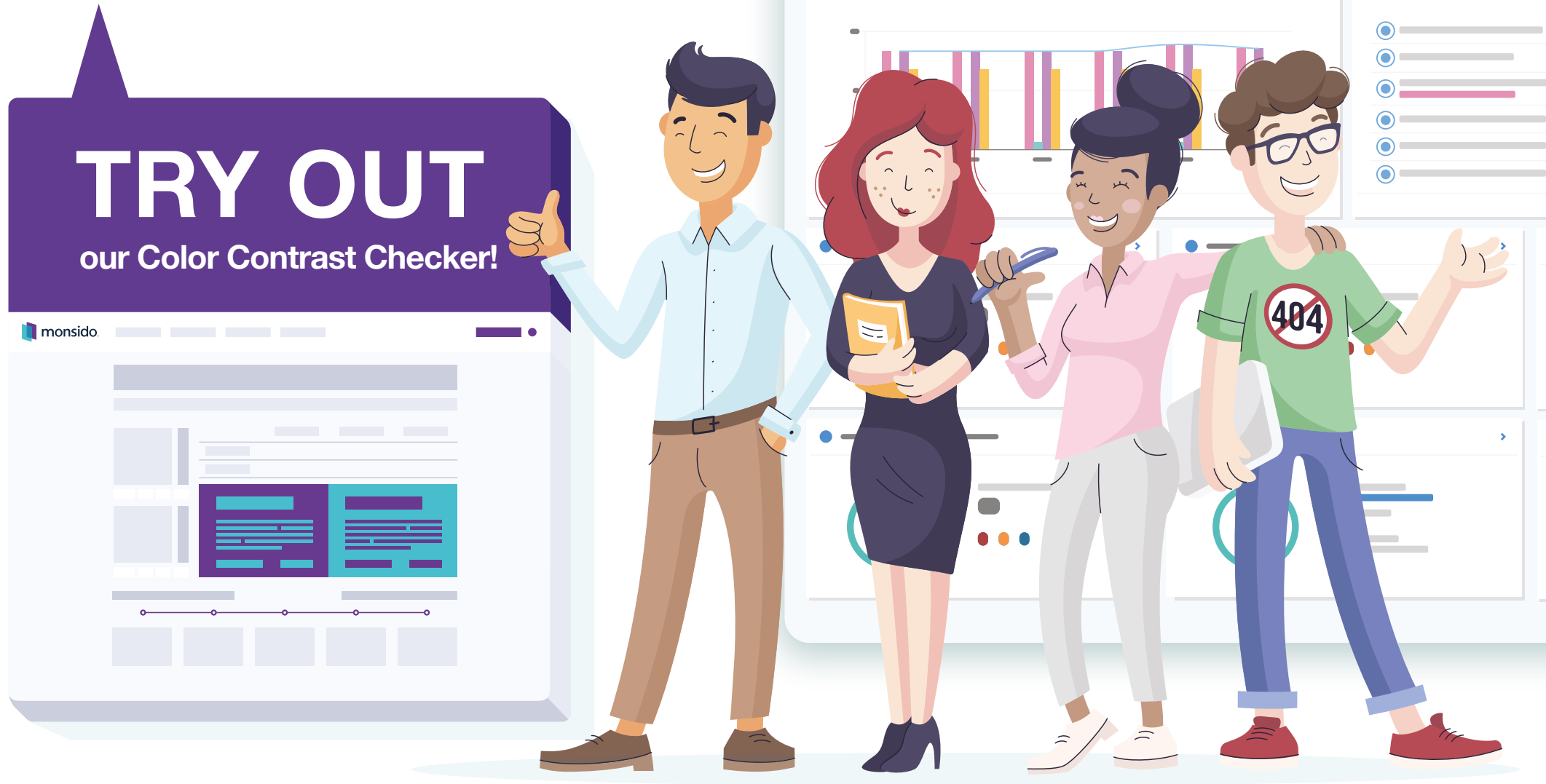
Developers

Much of web accessibility is technical, so a bulk of the responsibility is on developers. Even the responsibilities which fall on other team members – such as design elements – must be coded into the website. Developers will need to work closely with other team members to make sure that accessibility is being implemented effectively.

Some of the key roles developers have in web accessibility include:

Coding consistencies and compliance: In order to make sure that assistive technologies can understand the website, the code must consistently follow the standards of that format. All elements need to be marked appropriately, such as the code for headings, tables, etc.

Name, role, and value: All user interface components, including forms, links, and components generated by scripts must be able to be programmatically determined.

Code sequence: Pages should be coded so the code can be read as a print document would be read. This is because some assistive technologies and users navigate code in this order.

Keyboard navigation: It should be possible to easily navigate the website using only keyboard commands.

Focus visible: When using keyboard navigation, there should be an indicator (such as a visible border) to show users where they are on the page.

Enlarging: Under WCAG 2.1 AA standards, text must be able to be resized up to 200% without losing functionality.

Language: The language for each page should be set and editors should have the ability to code certain words or parts in another language, if necessary.

Forms: Forms should be properly marked up and have an accessible method of notifying users if they make a mistake when filling out the form.

Time limits: For users that require a long time to use a page or input information, there should not be time limits or there should be a method of overriding the time limits in place.

User control: Allow users to override styling and use their own custom CSS.

CMS and templates: Select a CMS that provides accessibility features and the ability to add accessibility fixes where necessary. If you are building custom templates, build templates and modules that meet the accessibility guidelines, while being user-friendly for editors and content creators. For example, code templates with appropriate heading structure, semantic HTML, include skip links, and make modules provide proper roles to elements. Creating templates with accessibility in mind makes it easier to further maintain and scale accessibility across the website.

Editors and Content Creators

When websites have multiple editors and content creators, it is common to have many accessibility issues (as well as quality assurance and SEO issues). The most important thing we need to emphasize here is creating a clear set of policies about how content will be published. These policies do not mean that your content creators lose their creative freedom. Rather, it ensures that certain aspects are handled in a consistent way for a uniform user experience – regardless of ability or disability.

Again, establishing web accessibility policies not only will help you ensure access to the disabled but will improve user experience for everyone.

Some of the key roles editors and content creators have in web accessibility include:

Adding page titles: All pages need to have a title which describes what it is about. The page title is what is shown at the top of the web browser and is also what screen readers will read first on the page.

Defining language: The developer should have coded the language of a page. If words in a different language are added to the page, they need to have their language defined in the code.

Text for audio content: All audio content should have a suitable alternative for hearing-impaired users, such as subtitles, transcripts, or pre-recorded sign language translations.

Using headers properly: Heading tags (H1, H2, H3, etc.) should be used in a logical, descending order. They should never be used decoratively.

Assigning categories and tags: To ensure better navigation, categories and tags should be assigned in a consistent, logical way.

Add meaningful link text: Ensure that each link has meaningful text that describes the context and purpose of the link, without having to rely on the text that surrounds it. Vague links like 'Click Here' give the user very little context as to what the content is about even if it precedes text that actually explains the purpose of the link. Users of screen readers explore webpages by tabbing through elements like links and bypassing other content, so on it's own, 'Click Here' offers no context as to what it is about. But if made more explicit, like 'Learn about our webinar', users can understand the purpose of the link and its destination better.

Alt text for images: For users who cannot view images, an alt text should be added. The alt text should be carefully chosen so it provides the same information to users as the actual image does. For images like graphs, charts, maps, etc., they need both a short and a long description to describe the information that they are trying to convey. Images that are there purely for decoration will still require an alt text, but as a null attribute (alt="").

Making a Web Accessibility Strategy

Remember that web accessibility requires clear policies and a long-term strategy. Even if you can't implement this strategy now, it is something that you should be thinking about. Whether you want to improve your website accessibility because of legal reasons, to expand reach, or simply because it is the moral thing to do, it is imperative that you have a plan for how you will proceed. It is generally best to think about accessibility when you first build your website or during a major redesign. However, it is possible to get an existing website up to compliance. Here we will talk about the two approaches you can take for your website accessibility strategy.

The Short-Term Approach

Web accessibility isn't something that you can fix once on your site and then forget about. To make sure your website is compliant and stays compliant, you will have to incorporate new policies into your overall website strategy. However, not all companies and organizations have the resources to initiate large web accessibility projects. These initiatives can be left until a website redesign. Right now, you can focus on fixing what you can. A website which is 50% accessible is better than a website which isn't accessible at all!

With the short-term approach to web accessibility, you will follow these three basic steps:

Scan website to find issues: Start by finding out what issues are currently affecting your website so you have an idea of where problems lay.

Prioritize issues: If you can't fix all of the errors right now, then focus on the high-priority issues. There are a few ways that accessibility issues can be prioritized. One is to fix issues with key processes on your website, such as checkout or registration. Another option is to fix issues on important pages, such as your homepage or most-accessed content. Yet another option is to see what issues can be most easily fixed and return the greatest benefits. For example, you may decide to make transcripts for all of your audio content because it improves accessibility for the hearing impaired as well as improving SEO.

Fix issues: Make sure the staff members in charge of fixing any accessibility issues have the right training and resources to do the job.

The Long-Term Approach

With this approach, the goal is to build a website which is accessible now and will remain accessible in the future. The strategy can be broken down into three parts with multiple steps under each.

1) Initiate

Congratulations! By reading this and learning about accessibility, you have already started this part of your accessibility strategy. Build on this momentum.
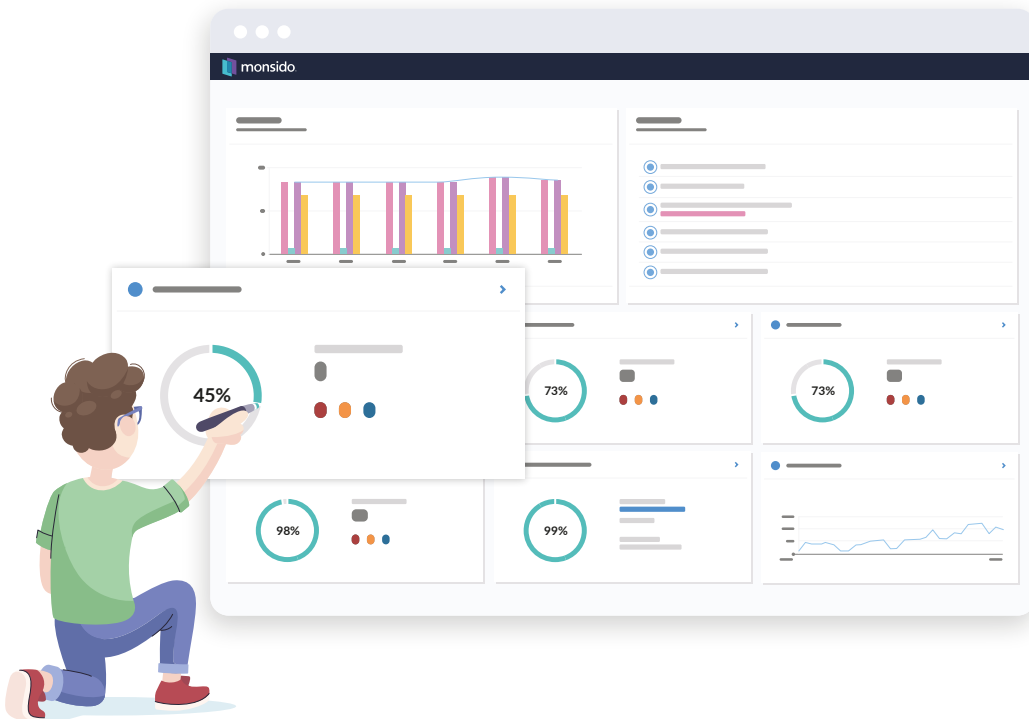
Here are some steps to take to ensure your strategy gets off on the right foot:

Learn the basics of accessibility: Hold a meeting to raise awareness about accessibility and gather support.

Make your case about how this will benefit the company or organization: You want all the major stakeholders to be on board!

Use Monsido to scan your website: Note what the current issues are and where your strengths are.

Further your knowledge: Once you know what accessibility issues your website currently has, you can seek out training and other forms of knowledge related specifically to those issues.

2) Plan

Before you set out fixing the errors you found on your website, you need to make a plan.

Here is a list of steps you can take to build your accessibility plan:

Determine your resources: Your resources will probably start with establishing a budget for web accessibility. This budget can then be used for tools (such as Monsido) which reduce the burden on your staff as well as for training resources and time for implementing changes and testing.

Set clear goals and milestones: One good strategy is to set goals for each role, such as setting a goal for content creators to use alt attributes on all future images and developers to fix high-impact issues in code. You can also set site-wide goals, such as a goal to have your website be Level A accessible within one year and level AA accessible within 18 months.

Set policies: This is one of the most important parts of the planning phase, so make sure that you are dedicating ample time on setting policies. You will need an overall website policy for your website (such as, "meet level AA") as well as policies for each role. For example, you may amend your content policies to include a rule that all content creators must use heading tags according to WCAG 2.1 recommendations.

Train team: Train your team on the basics of web accessibility to ensure that they have some knowledge of the processes that this plan will involve. Don't be afraid to get a consultant involved to help educate them; it's always

important that they understand the scope of the project they are involved in as well as how their efforts will impact the greater public.

Assign roles and responsibilities: As talked about in the "Roles" section of this handbook, there are many different team members who are affected by accessibility. Define these roles as they apply to your business/organization and assign responsibilities.

Prioritize issues: Determine which issues should be dealt with first. It is advisable to prioritize tasks which are easy to implement but have a high impact on accessibility. You may also choose to prioritize certain pages on your website.

Set up monitoring system: To make sure you are meeting your goals, you will need to monitor progress. Determine when and how monitoring will take place. With Monsido, you will have a weekly scan and report as well as the option for on-demand scans.

3) Implement

Remember that web accessibility isn't something that you do once. After implementing your accessibility plan, you will need to regularly review it for success.

Here are some steps you can take during implementation:

Put new policies into practice: Assign tasks. You've already assigned roles. Now assign specific tasks to each role, such as the task of providing transcripts for all audio content or the task of redesigning headers.

Use a hybrid approach: There are three ways to approach the implementation of web accessibility on a website: through manual testing, automated tools, or a combination of both. Manual testing is time-consuming and can only be done by those with significant technical accessibility expertise. Automated tools, on the other hand, are easier to use. They can scan your site for accessibility errors, and some even claim to fix them using artificial intelligence, etc. but they cannot guarantee compliance as there are a lot of issues that require human review. A hybrid approach is a combination of automated and manual testing, where an automated tool like Monsido, scans websites for accessibility issues and triggers notifications for manual remediation with recommendations for how to fix them.

Evaluate progress and analyze results: The W3C recommends that accessibility evaluations be done at the same time as other evaluations, such as regular quality assurance evaluations. Monsido reports can be very valuable in analyzing your results.

Reprioritize: As you implement your accessibility strategy and have success, your priorities are bound to change. Make sure these new priorities are reflected with milestones. You may also come across unforeseen issues and will need to prioritize and resolve them.

Communicate success: Make sure that stakeholders know how you are progressing and what achievements you've made. This is vital for getting the support and resources you need to sustain accessibility.

Sustain progress: Web accessibility is an ongoing process. You will need to monitor your website for errors (this is one more way that Monsido helps). Legislation could change, so make sure you know what standards apply to your website.

Update, adapt, and improve: Your web accessibility strategy should not be set in stone. Web accessibility guidelines are constantly being updated to support new criteria and technology. Your website also will need to be robust enough to anticipate and adapt to new assistive technologies that might emerge in the future. So as part of your web accessibility strategy, remember to keep on evaluating your progress and refreshing your plan to accommodate any updates.

Further Resources

The main resource for web accessibility is the Web Accessibility Initiative (WAI). There you can find detailed information about accessibility and many useful tutorials and guides. You may find these pages particularly valuable:

Accessibility Responsibility Breakdown

**Complete WCAG 2.1 Criteria List**

Web Accessibility Tutorials

How to Meet WCAG 2.1

Section 508 Checklist

Who Is Monsido?

Monsido is a solution that unifies web accessibility compliance, web governance, and quality assurance into one intuitive and time-saving platform. We provide a simple, responsive and attractive user experience that allows our customers to improve and maintain the best web experience possible for their end-users. To see how our solution can help improve your website accessibility, book a demo with us.
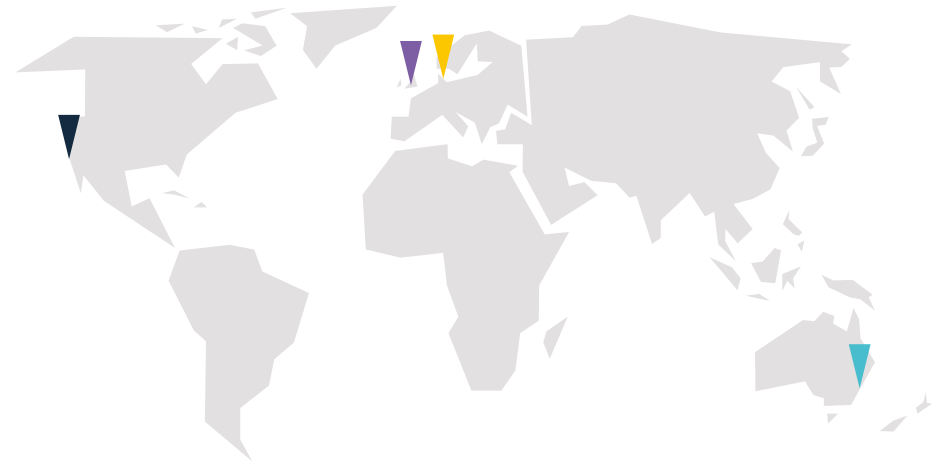
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