

# Inclusion and Accessibility: People with Disabilities

CASE STUDY



# Inclusion and Accessibility: People with Disabilities

## EXECUTIVE SUMMARY

The purpose of this case study is to provide a high-level background on Section 508 compliance. The targeted audience is organizational decisionmakers who have oversight of a web presence. After reading this document you will have sufficient background information to make informed decisions moving forward regarding the importance of accessibility and how to ensure that your organization's online properties are compliant.

Additionally, you will hear from four individuals with different perspectives pertaining to this issue: a policy expert, a technical expert, an I.T. service provider, and a client. By highlighting the different perspectives, it is our hope to provide a holistic overview to better inform.

We all stand to gain from the "Curb Cut Effect," which references the changes made to sidewalks to enable mobility for wheelchair users. It is also a term used to describe how designs that were originally intended to benefit people with disabilities often end up benefiting everyone. When we make websites accessible to people with disabilities, they become easier to use for *all* people. Website accessibility isn't just about meeting the standards, its more about how to be inclusive of those with disabilities to the benefit of all users.

***You deserve credit for taking the first step, learning about the issue by reading this document.***

By learning about and implementing accessibility best practices you not only help people with disabilities, but everyone who visits your website.

**Accessibility is an issue that affects us all.**

**If you have an accessible website, you improve the experience and usability for all users. They will stay on the site longer.**

—Kim Alfonso, Results One



## INTRODUCTION

More people than you may realize are negatively impacted by the inaccessibility of websites. Website and digital accessibility issues encompass a large swath of individuals throughout the United States and the world. This holds implications for a range of stakeholders with a variety of impairments that limit personal access to crucial web-based information and opportunities. “Accessibility” is the practice of making your websites usable by as many people as possible.

When technology is accessible, each user is able to interact with it in ways that work best for themselves. According to the ADA, accessible websites do not “require people to see, hear, or use a standard mouse in order to access the information and services provided.” All content published digitally should be accessible to people with disabilities, including blog posts, documents, emails, webinars, videos, and social media. Inaccessible websites and digital content not only create a barrier to use for those with impairments of any sort, but also effectively limit organizations’ ability to access the talents, interests, and commerce available within a variety of communities of people with disabilities. This is not an insignificant group.

According to a Center for Disease Control [infographic](#), approximately 26% (or one in 4) of adults in the United States have some type of disability. Employing a broad understanding of the term “disabled,” the Census calculated that to be just over [85 million people](#). The definition covers any permanent, temporary, or situational disability. Beyond visual and auditory issues, accessibility addresses the needs of those with limited mobility, a wide range of cognitive disabilities (from dyslexia to PTSD), and of course, those who experience seizures. This represents a major underserved demographic.

There appears to be a significant digital divide between those who have a disability and those who do not. According to a [Pew Research Center survey](#) conducted in the fall of 2016, nearly a quarter of Americans with a disability (23%) say they never go online. Only *half* of disabled Americans report using the Internet daily. This is striking when compared to those without any impairment, which sits at nearly 80%. While internet use has become a commonplace activity for most, the absence of accessible sites presents an obstacle to many users. The self-report on confidence in using the Internet to stay abreast of important information is also very low (39%).

The inability to interact with routine technology is easily repairable, particularly when the stakes are so high and so many are left isolated from the benefits of internet use.

Accessible websites are essential to bridging the divide many users face. It is also part of a more inclusive perspective that acknowledges consumers’ different needs and the value of accommodations. Internet access and use has implications for the economy as well as self-sufficiency and personal dignity. As ETTE’s subject matter expert on 508 matters stresses, “It is difficult to convey how important it is for people with disabilities to be treated as productive, independent equals to the rest of society.”



**Accessibility resonates with the call for inclusion and makes good business sense.** It is also mandated in many cases. The business drivers for accessibility continue to be a mix of legal risk reduction and the desire to do the right thing.

Three primary accessibility-related legal protections include:

- [Title III of The Americans with Disabilities Act](#) (ADA) was part of the first comprehensive Federal civil rights law protecting individuals with disabilities. The Americans with Disabilities Act (ADA)—enacted in 1990 and amended in 2008—was the first comprehensive federal civil rights law protecting individuals with disabilities. Title III of the ADA requires that every owner, lessor, or operator of a “place of public accommodation” provide equal access to users who meet ADA standards for disability. It prohibits discrimination on the basis of disability by public accommodations.
- Leaving no room for ambiguity regarding Title III of the ADA, the Department of Justice explicitly asserts that Title III of the ADA also applies to “online-only” businesses.
- [Section 508 of the Rehabilitation Act](#) (29 U.S.C. § 794d) protects the right to equal access to electronic information through technology. Section 508 requires that electronic and information technology that is developed by or purchased by Federal agencies be accessible by people with disabilities. This applies specifically to Federal agencies or the products created by Federal agencies. If you contract with the United States Government, your organization may be required to make your website Section 508 compliant.
- [The Online Accessibility Act \(Title VI of the ADA: Consumer Facing Websites and Mobile Applications Owned or Operated by a Private Entity\)](#) was introduced in the House in October 2020. The bill would add language to the Americans with Disabilities Act (ADA) that specifically includes consumer-facing websites and apps, and would specify the Web Content Accessibility Guidelines (WCAG 2.1 AA) as the official standard for private businesses’ digital materials. This would apply to the federal, private/commercial sector, including both websites and mobile apps.

**The ADA did not include digital accessibility from the beginning because it was not as relevant at the time. As technology has made its advance so has accessibility, we have come to a point where it is very difficult for one to be separate from the other.**

—Citlali Rioja, ETTE

By addressing the digital gap, accessibility provides access to work for people with disabilities. Accessible sites can also create an opportunity for businesses to grow their market share from people with disabilities who access their goods and services using those sites. Digital accessibility can also minimize your legal risks and enhance your brand.

A January 2020 article by the [New England Low Vision and Blindness Association](#) calculates that Americans with disabilities represent considerable spending power estimated at **\$200 billion**. According to an article on Medium.com, people with disabilities control \$8 trillion in spending globally, with “people with disabilities (by themselves) in the U.S. alone control[ing] approximately \$645 billion in disposable income” (Byrne-Haber, 2020). Think the numbers can’t get any higher? A 2020 Annual Report on the [Global Economics of Disability](#) asserts a measurable \$13 trillion dollar market influence.

A key takeaway from any exploration of accessibility issues is how an accessible website works to ensure that as many people as possible can access your goods and services. It is therefore **important as a matter of business to make your website as navigable (usable) by as many people as possible.**

## OVERVIEW OF DIGITAL ACCESSIBILITY & SECTION 508

At the start of 2017, the United States Access Board published its final rule on updated accessibility requirements for Information and Communication Technology (ICT) covered by Section 508 of the Rehabilitation Act and Section 255 of the Communications Act. The Standards were issued under section 508 of the Rehabilitation Act.

**“Federal employees [and members of the public] with disabilities have access to and use of information and data that is comparable to the access and use by Federal employees who are not individuals with disabilities”**

— (§ 1194.1) section 508 of the Rehabilitation Act of 1973,  
as amended (29 U.S.C. 794d)

The Section 508 Standards address access for people with physical, sensory, or cognitive disabilities. They contain technical criteria specific to various types of technologies and performance-based requirements which focus on functional capabilities of covered products. The Board’s Section 508 Standards apply to electronic and information technology procured by the federal government, including computer hardware and software, websites, phone systems, and copiers. Specific criteria cover software applications and operating systems, web-based information and applications, computers, telecommunications products, video and multi-media, and self-contained closed products.

However, **compliance is more than completing a checklist of requirements.**

Accessibility must be practicable and useable, with added navigation, and understandable shortcuts that are easy-to-use and have clear instructions. **These may seem universally applicable to make navigating technology easier for all, but they are fundamental requirements for those with disabilities to gain access.** They may contain elements such as alternate formats (Braille, ASCII text, large print), alternate methods (TTY, captioning, text-to-speech synthesis, audio description), and must not represent any undue burden.



**By making your website accessible, you are ensuring that all of your potential users, including people with disabilities, have a decent user experience and are able to easily access your information. By implementing accessibility best practices, you are also improving the usability of the site for all users.**

— Usability.gov

## OUR INTRODUCTION – ETTE'S ENTRANCE TO THE FIELD OF ACCESSIBILITY

ETTE is a minority-owned small business with a commitment to inclusion. The ADA Standards provide us with the opportunity to exercise our values.

After becoming aware of the need for compliance, ETTE responded internally by implementing a policy of having all the software development staff attain [IAAP certification](#). This should be fully realized in the next year.

ETTE was first introduced to accessibility issues through our relationship with Columbia Lighthouse for the Blind. We then moved to leadership on projects, partnering to provide technical assistance to clients working on accessibility issues. ETTE provided best practices on managing an effective I.T. Accessibility program and assisted clients in understanding how to define accessibility requirements under Section 508 and WCAG 2.1.

While the federal government is mandated to follow the Section 508 policies and laws, at ETTE we operate under the idea that everyone should be compliant.

**I first learned about 508 compliance due to work, before that, I was not aware any law existed to make websites accessible. Learning the guidelines and laws was a priority for me when I started working.**

—Citlali Rioja, ETTE







## SCENARIO

The Military Women’s Memorial, a client of ETTE, was preparing for a website relaunch. ETTE offered to review the site to check for 508 compliance. Upon inspection, there were several issues discovered, resulting in considerable remediation work being required. The website launch was subsequently delayed in order to remediate the issues discovered. Beyond the legal requirements, the steps of remediation were taken in service to MWM’s constituency of generations of veterans. From being merely difficult to being dangerous to navigate, the website needed significant revisions to move it ever closer to full compliance. The organization felt responsible toward its core constituency and was quick to initiate a manual audit to mitigate any issues. **This proactive stance is laudable and should stand as the norm within organizational decision making.**

## THE FOUR INDIVIDUALS



**Robin Johnson**  
*Chief of Staff, Military Women’s Memorial (MWM)* – Robin is part of the senior management team and responsible for the successful launch of the new website.



**Lawrence Guyot**  
*President of Empowerment through Technology & Education, Inc. (ETTE)* – ETTE is the IT service provider for the Military Women’s Memorial.



**Citlali Rioja**  
*Certified Professional in Accessibility Core Competencies* – Citlali is the technical subject matter expert on 508 and WCAG 2.1 compliance.



**Kim Alfonso**  
*CEO of Results One* – Kim is a nationally recognized subject matter expert on Section 508.

## THE CLIENT

*(Robin Johnson, MWM)*

**When did you learn about the need for 508 compliance? How did you become aware of the issue itself? How relevant did it appear to your primary work at first?**

I first learned of this when Lawrence Guyot of ETTE called and educated me on the requirement. Since I had just retired from the Army and do not have a website or technical background, this was my first exposure to accessibility standards concerning websites.

Regarding perceived obstacles, I can say there is a lack of education and understanding of the requirements. We are a small non-profit with limited staff, and it is expensive to implement. We understand the value [of the accessibility Standards] and are committed to ensuring it is done right, but at the end of the day, there is little federal funding or assistance for organizations like ours to train our staff and develop a fully accessible website.

We are mitigating issues by leveraging our I.T. support company, ETTE, to run audits that will detect aspects of our site that are not in compliance. Additionally, we have hired a Director of Programs with extensive ADA compliance expertise and is advising us through the process. We also are leveraging our state Ambassadors, many of whom are veterans who are disabled, to provide feedback before our go-live date.

**Military Women's Memorial tells the stories of the 3 million women that served and we want everyone to have the opportunity to experience these compelling stories. Veterans know more than anyone about the challenges around combat or service-related disabilities so, we are particularly sensitive to ensuring that we have put our very best foot forward and made every effort to make our engagement with our visitors fully accessible.**

—Robin Johnson, MWM





## THE SERVICE PROVIDER

(Lawrence Guyot, ETTE)

Our goal as MWM's I.T. service provider was to look out for their best interest. When we became aware of the impending launch date, we wanted to review the site to ensure they did not run into any accessibility issues. During the site's initial manual audit, our lead 508 expert, Citlali, was affected by a flashing image element that induced a migraine headache. That visual element is known for causing migraines and seizures in people with specific cognitive disabilities.

By reviewing the website before launch, we were able to help MWM avoid a potentially harmful situation. With their target audience being veterans, there is a high likelihood of some of their target audience having a visual disability. With over 3 million people in MWM's potential audience, even a small percentage of visitors being affected wouldn't have been acceptable.

The takeaway is that **it is best to address accessibility issues before launching your site rather than afterwards**. By doing so, you are protecting your organization from potential lawsuits, and more importantly, it shows that you are considering your audience's best interest. **As a decision-maker, you can do well by doing good.**

## THE TECHNICAL EXPERT

(Citlali Rioja, ETTE)

**My coworkers have been willing to make accommodations and learn if I ever give suggestions or bring up something that might be a violation. I hope everyone benefits from an accessible site; I hope they experience the ease of use and a feeling of inclusivity, most of the time disabilities are ignored or not spoken of by the greater public.**

—Citlali Rioja, ETTE

What obstacles do you believe organizations may face in implementing the necessary changes to meet the 508 Standards?

1. Their perception of the cost of implementing the changes  
Free preliminary audit available here: <https://ettebiz.com/508-manual-audit-request/>
2. Lack of knowledge of all the tools in the market and which are the best to use
3. Identifying a vendor for remediation
4. Understanding the process of implementing the changes
5. The organization may not feel it is necessary because people with disabilities are not on staff or primary stakeholders in work done

I believe the lack of knowledge is one of the most significant obstacles any organization has. A quick Google search will not tell you that you need to have your site audited by automated and manual means. Informing employers and employees alike can help them avoid common accessibility mistakes.

I try to remain vigilant and prepared for questions, whether from coworkers or clients. Creating cheat sheets for my coworkers has been very helpful for accessible development.

Accessibility guidelines for development aren't set in stone and can be applied differently depending on the website or the development tools. Knowing how to interpret them is at least half of my job; the other half would be knowing how to explain them to clients.



## THE POLICY EXPERT

*(Kim Alfonso, Results One)*

For the past twenty years, as the parent of a visual impaired child, I have been working in the blindness industry on Boards and parent organizations (Montgomery County Commission for P.W.D., DC Advisory Board for Special Education, M.S.B., NAPVI) and most recently spent 12 years as C.O.O. at Columbia Lighthouse for the Blind (CLB), 2007 - 2019.

From my perspective, technology offers unprecedented employment opportunities and independence for people with disabilities and offers increased market share for online business and services. Accessible technology enhances opportunities to pursue careers and jobs in a variety of fields that use computers. For employment and work-related use and information—mail communications, online forms and processes, research and information gathering. Furthermore, accessibility empowers individuals to independently use online services for their personal use—such as banking, shopping, online newspapers, email, and ride sharing apps.

As of 2020, the Internet hosts more than 400 million active websites, many of which already fall under a Title III mandate. Creating a compliant online environment reduces the barriers to participation in the global economy and opens opportunities for businesses and persons with disabilities alike. It is an important step to advancement for each group, one that should be taken without hesitation.

**It is morally essential for organizations to ensure individuals with disabilities can benefit from their digital space like everyone else.**

When schools and businesses closed due to COVID-19, the public began relying on the web for everyday activities, including shopping, remote work, education, healthcare, banking and services, and access to their jobs. Almost every business has an online presence these days; however, not all pay close enough attention to how people with disabilities experience their website. As a result, A.D.A. accessibility lawsuits and complaint letters have soared.

Almost immediately, it was glaringly apparent that businesses and schools were not ready to meet the demand for accessible websites and software. As a result, there was an increased demand for accessible websites, mobile apps, and software. In 2019, according to an analysis by international legal firm Seyfarth Shaw, web accessibility federal lawsuits hit record numbers, with 11,053 suits filed in federal court, an 8.8% increase from 2018.

Lawsuits and settlement agreements will likely increase as companies continue to ignore their moral and sometimes legal obligation to ensure their websites and apps are accessible. **The real solution to accessibility compliance is taking the definitive initiative to comply with technical standards, determine accessibility via user testing and verification, and ensure ongoing compliance monitoring.** Businesses subject to ADA Title III must be ready to make their websites or apps accessible to people with disabilities by following the more frequently referenced and most updated conformance target, WCAG 2.1 AA. In closing, I feel strongly that it is the right thing to do, to ensure that we are not leaving anyone behind, to ensure that we are including all people without disabilities. Successful businesses know the importance of this.

### What should they do next?

1. Incorporate accessibility early in the development life cycle of your website and digital content. It is much more cost-effective to be thinking about inclusive design at the first stages of planning a new product or a new feature for an existing product.
2. Use usability testers who have disabilities and are IAAP certified professionals.

---

### Six tips to make your website A.D.A. compliant:

- Review the Website Content Accessibility Guidelines (WCAG 2.1)
- Conduct an audit of your site using a WAVE Web Accessibility Tool
- Make sure your images have descriptive alt text
- Review your website's elements, such as headings, buttons, and links
- Utilize web writing best practices when developing content
- Visit <https://ettebiz.com/508-manual-audit-request/>



5335 Wisconsin Ave. NW, Suite 440 | Washington, DC 20015 | 202-345-1965  
<https://ettebiz.com>



## References

- [Access Board Guidance](#) - for Web-based Intranet and Internet Information and applications
- [DigitalGov.gov Accessibility](#) - content for creating accessible experiences for website users
- [Section 508.gov](#) - resources and tools to help implement Section 508
- [Government Websites for People with Disabilities](#) - develop an action plan to improve the accessibility of Web site
- [Disability Impacts All of Us](#) - CDC's statistics on disabilities and the impact on the U.S.

## International Communities

- [The World Wide Web Consortium](#)
- [Web Content Accessibility Guidelines 2.1](#)
- [Design and Develop Overview](#) - Guidance for writing, designing, and developing for accessibility
- [Disability Overview](#) - Learn facts about disability from the WHO
- [Accessibility, Usability, and Inclusion](#) - Article created by the W3C

## Commercial Solution Providers

- [Hearing Loss Simulator](#) - A hearing loss simulator by Starkey Laboratories (Hearing aid company)
- [NVDA](#) - Free screen reader
- [JAWS](#) - Screen reader
- [ZoomText](#) - Magnifier Software
- [Dragon software](#) - Software line made by Nuance mostly used for speech recognition

## Non-Profit Organizations

- [International Association of Accessibility Professionals](#)
- [IAAP YouTube Channel](#)

## Personal Testimonials and disability resources

- Auditory - [Hearing Loss Simulator](#) - A hearing loss simulator by [Starkey Laboratories](#) (Hearing aid company), [Understanding Assistive Technology: How Does a Deaf or Hard of Hearing Person Use Technology?](#) - An article by E. Foley For [Level Access](#), [How using captions can get you 80% more views! // Why captions are useful \[CC\]](#) - First in the series of videos about captioning and how deaf users use YouTube made by [Jessica Kellgren-Fozard](#) a deaf YouTuber.
- Visual - [Fast Facts](#) - From the CDC's Vision Health Initiative, [Understanding Assistive Technology: How Does a Blind Person use the Internet?](#) - An article by E. Foley for [Level Access](#).
- Cognitive - [Making content usable for people with cognitive and learning disabilities](#) - A document prepared by the W3C for the betterment of content for people with cognitive and learning disabilities
- Neurological - [What Happens During A Seizure?](#) - article from the [Epilepsy Foundation](#), [Epileptic Seizures](#) - article describing the different types of seizures on the [Epilepsy Society](#)
- Mobility - [What is life really like for disabled people? The Disability Diaries reveal all](#) - A collection of stories of the day-to-day life of people with disabilities
- Speech - [Life as a Mute](#) - a small blog entrance by [Silent Musings](#) explaining what it is like to be mute
- Mobility - [Keyboard Compatibility](#) - a demonstration of the different use of keyboards