

# Accessible Design is Good Design

July's Human-Centered Design (HCD) Community of Practice (CoP) on accessibility and user experience began with a quote attributed to Judy Hueman, a lifelong advocate for the rights of disabled people, who said, "for people without disabilities, technology makes things convenient, whereas for people with disabilities, it makes things possible." A very powerful statement that aligns with Tim Berners-Lee's, W3C Director and the inventor of the World Wide Web, view that an essential aspect of the Web is its accessibility by everyone regardless of disability.

Web accessibility improves people's lives by enhancing social inclusion for people with disabilities, as well as others such as older people, people residing in rural areas, and people in developing countries. Businesses also benefit by offering best practices for mobile devices, device independence, multi-modal interaction, usability, design for older users, and search engine optimization (SEO).

Today, we hear reference to the ADA and Section 508, but what exactly are they referring to and what do they do?

The Americans with Disabilities Act or ADA, which was enacted in 1990, and subsequently amended in 2010, prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public.

Because of the ADA, employers are required to make reasonable accommodations for employees with disabilities in the workplace; businesses are required to make reasonable modifications to ways in which they serve people with disabilities, and telephone and Internet companies are required to provide interstate and intrastate telecommunications relay services that allows individuals with hearing or speech disabilities to communicate over the telephone.

Section 508 refers to the Rehabilitation Act of 1973. This Act prohibits discrimination based on disability in programs conducted by Federal agencies, in programs receiving Federal financial assistance, in Federal employment, and in the employment practices of Federal contractors. In 1998, Section 508 of the Act was amended to require Federal agencies to make their electronic and information technology accessible to people with disabilities. Although Section 508 only pertains to Federal agencies, the W3C established the Web Accessibility Initiative (WAI) to develop standards and support materials to help web designers understand and implement accessibility. Brinda Large, CMS Program Analyst/Contracting Office Representative/Section 508 Clearance Officer, provided additional insight regarding 508 compliance as it relates to the Centers for Medicare and Medicaid Services.

After discussing the fundamentals of accessibility and user experience (UX), iQIES team members Htet Htet Aung, a UX designer, and Sandra Clark, a front-end developer, explained how designers work to make a website accessible. Although designers may check the boxes to comply with the required standards, it does not mean that the website is accessible. Different types of disabilities need different types of design and code.

The four principles or measures of accessibility are perceivable, operable, understandable, and robust. Automated testing or special tools can address objective issues, such as if inputs have associated labels, if images have alt text defined, if the color contrast is enough for the font-size, and if the code is well-formed. Understanding a user's needs requires a subjective approach, which is accomplished through the development of user personas. A persona helps designers understand a user's needs, experiences, behaviors, and goals. The key to creating a viable persona is that it is based on real data collected from multiple individuals.

This discussion made me think of a [60 Minutes](#) segment from 2019, which was re-aired in July, about Chris Downey, an architect from San Francisco who lost his sight following surgery to remove a brain tumor. A decade after his surgery, he had developed a new specialty, making spaces accessible to the blind. Chris Downey was able to bring his needs, experiences, behaviors, and goals to design buildings that aid a blind person in navigating a physical site. He mentioned that he was able to "hear" buildings with his heightened sense of sound. This ability allowed him to design office interiors that were visually appealing to sighted workers and audibly appealing to blind or visually impaired workers. He certainly used real data to create accessible design.

Examples were provided of the different types of disabilities that designers must consider when developing a site. Designers are familiar with addressing the needs of blind or deaf users but may not immediately consider the needs of someone with attention deficit disorder, anxiety, dyslexia, or seizure disorder. An accessible website or system brings equity through design that achieves a fair outcome for all users. The goal is to develop a system or application that is flexible enough to accommodate the broadest range of users, regardless of their age or disability.

Similarly to what was stated during last month's HCD CoP regarding content strategy, accessibility and Section 508 compliance should be considered at the beginning of a project and not as an afterthought. For the designer, it should not be viewed as a burden or detractor to creativity. Instead, accessibility requires the designer to think outside the box and innovate new ideas. For the business or site owner, it provides a cost benefit in not having to rework the site to meet 508 compliance.

As more designers and developers receive positive results from employing accessibility guidelines, these practices will become standard. As Clark states, "accessible design is universal design." Whether a convenience for some or a necessity for others, accessibility benefits everyone.

Please refer to the [HCD CoP](#) Confluence page to review the presentation or video from this program or materials from past programs. In addition, the PM3 Communications Team offers a [HCQIS Writer's Toolkit](#) on its [HCQIS Communications](#) Confluence page that includes guidelines, templates, and checklists to ensure 508 compliance.

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