

Web Accessibility

Jewel Tesi 5.1 A

One of the most important aspects of digital inclusion is web accessibility.

Web accessibility has emerged as a key component of website building in the current digital era. Since the internet is a major source of communication, information, and services, it is critical that websites be usable by everyone, including those with disabilities. The process of creating websites, tools, and technologies that make it possible for people with disabilities to properly view, comprehend, navigate, and engage with digital material is known as web accessibility. This is in line with the World Wide Web Consortium's (W3C) Web Content Accessibility Guidelines (WCAG), which are designed to make digital material accessible to people with a range of disabilities, such as visual, hearing, physical, and cognitive impairments. The WCAG is built around four core principles: Perceivable, Operable, Understandable, and Robust (POUR). These principles ensure that web content is accessible and usable by all individuals, regardless of their abilities.

Perceivable

Regardless of a user's sensory limitations, web content must be provided in a way that they can understand and recognise. This covers distinguishing content, flexible layouts, and text alternatives for non-text information. For example, BBC News skilfully uses alternate language (alt text) for photos, allowing screen readers to explain visual components to viewers who are blind or visually impaired. High contrast writing is also used to make it easier for people with impaired vision or colour blindness to read.

However, Instagram first fell short in this area by failing to provide sufficient alt text for photographs, which made it challenging for users who are blind or visually impaired to interact with the platform's content. Even though Instagram has now implemented AI-generated alt text, human intervention is still required to guarantee accuracy because automated descriptions can occasionally be imprecise or deceptive.

Operable

Multiple input methods should be available on a website, especially for visitors who are unable to use a mouse. Keyboard navigation, enough reading time, and the avoidance of flashing elements that can cause seizures are all crucial features. With its full keyboard navigability and prominent attention indications, GOV.UK is an excellent example of best practices and is usable by those with motor impairments.

On the other hand, a lot of e-commerce websites use auto-scrolling carousels without pause controls, which makes them inaccessible. Those who rely on keyboard navigation may find these annoying, and those with cognitive impairments may find them overwhelming.

Understandable

Clear directions and consistent navigation should make it easy for users to understand web material. With its organised layout, straightforward descriptions, and unambiguous form error messages, Apple's website exemplifies best practices and helps visitors finish tasks quickly.

On the other hand, several banking websites have extremely intricate navigation and ambiguous error messages, such as "Invalid input," that don't make clear what has to be fixed. Users may become quite frustrated with this, especially those who have cognitive impairments.

Robust

A strong website should work on a variety of devices and browsers by being compatible with different assistive technologies. Wikipedia accomplishes this by utilising ARIA (Accessible Rich Internet Applications) landmarks, semantic HTML, and appropriately labelled headings, which enable smooth screen reader compatibility.

However, badly written JavaScript-based websites frequently cause screen reader issues, making it impossible for visually impaired users to use important functionality. Accessibility may be made more difficult in certain situations when users zoom in or switch screen orientation, causing material to occasionally vanish.

Accessibility Implementation in My Project

Understanding how crucial accessibility is, I intend to include the following elements in my own web design project:

- **Text Alternatives:** Giving every picture and multimedia component alt text.
- **Keyboard Navigation:** Making sure visitors don't need a mouse to explore the website.
- **Contrast and Readability:** To ensure that all writing is readable by everyone, use high contrast colour schemes, resizable typefaces, and dyslexia-friendly fonts.
- **Semantic HTML:** Improving screen reader compatibility by using appropriate HTML components.
- **User-Friendly Forms:** Adding error warnings and clear labels to make forms easier to use.
- **Preventing Auto-Playing Media:** To avoid distractions, provide users choice over how multimedia is played.

Web accessibility is an essential component of inclusive design, not just a technological necessity. Web developers may guarantee that digital material is accessible to all users, irrespective of their skills, by following the WCAG principles: Perceivable, Operable, Understandable, and Robust. These essential accessibility elements will be incorporated into my project as I work on it to improve usability for a wider audience and help create a more equal online space for all.