



Accessibility Testing Tools and Practices: Ensuring Inclusive Digital Content

Introduction

Creating accessible content is essential for ensuring that everyone, including individuals with disabilities, can access and interact with digital content. This white paper outlines various tools and practices for testing the accessibility of your content, including automated tools, manual testing methods, and mobile accessibility testing. It also provides insights into the state of digital accessibility and its impact on different populations.

Automated Tools for Testing

Overview

Automated tools evaluate a website's code and content, flag accessibility issues, and often provide guidance on how to fix these issues. They save time for both developers and content creators by catching errors that might not be obvious.

Harvard-Licensed Tool: Siteimprove

Siteimprove breaks down accessibility issues into manageable tasks, tracks progress toward compliance, and provides recommendations and guidance.

Free Automated Tools

There are numerous free tools available for evaluating the accessibility of websites. These tools can help identify common accessibility issues:

- WAVE: Provides visual feedback about the accessibility of your web content by injecting icons and indicators into your page.
- aXe: A browser extension that evaluates accessibility within the browser.
- Lighthouse: An open-source, automated tool for improving the quality of web pages, including accessibility.

Manual Testing Methods

Automated tools are helpful, but they can't catch every error since they lack the ability to understand context or evaluate content quality. Therefore, it is essential to follow up with manual testing to ensure your website is fully accessible.

Content Review

Read through your content with accessibility best practices in mind. Ensure that the language is clear, concise, and free of jargon.

Keyboard Testing

Check that all interactive elements can be operated with a keyboard. This includes navigating through forms, menus, and other interactive components without a mouse.

Screen Reader Review

Test with a screen reader to uncover issues with reading order and interactive elements. Common screen readers include NVDA, JAWS, and VoiceOver.

Mobile Testing

Testing mobile accessibility is a critical step in reviewing your content. Mobile screen readers like TalkBack (for Android) and VoiceOver (for iPhone) read aloud page content and relevant semantic information. Use these tools to get a comprehensive picture of your content's accessibility.

State of Accessibility

Digital Accessibility Overview

Digital accessibility refers to the ability of people with disabilities to independently consume and/or interact with digital applications and content. WebAIM's "The WebAIM Million" report provides a snapshot of trends and issues regarding web accessibility.

Key Findings from the WebAIM Million Report (2020)

- 98.1% of home pages had at least one WCAG 2.0 failure.
- 60.9 average number of errors per home page.

Common Accessibility Failures

- Low Contrast Text: 86.3% of home pages
- Missing Image Alt Text: 66%
- Empty Links: 59.9%
- Missing Form Input Labels: 53.8%
- Empty Buttons: 28.7%
- Missing Document Language: 28%

Population Affected by Inaccessibility

Visual Impairments

People who are blind need alternative text descriptions for meaningful images and use the keyboard to interact with interactive elements.

Hearing Impairments

People who are deaf or hard of hearing need captioning for video presentations and visual indicators in place of audio cues.

Motor Impairments

People with motor impairments may need alternative keyboards, eye control, or other adaptive hardware to help them type and navigate on their devices.

Cognitive Impairments

An uncluttered screen, consistent navigation, and the use of plain language benefit people with various learning disabilities and impairments.

Conclusion

Ensuring digital accessibility is both a civil rights issue and a business imperative. By using automated tools, conducting thorough manual testing, and considering the diverse needs of all users, we can create inclusive and accessible digital content. For more detailed information and resources, visit [Accessibility Day](#).

This white paper is based on guidelines and information provided in the Accessibility Testing Tools and Practices information from [Harvard University's Accessibility Website](#), the [Global Accessibility Awareness Day](#) website, and the [W3C Web Accessibility Initiative](#) website.