Issues affecting implementation of Web Accessibility Guidelines

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Abstract

To avoid social exclusion for people with needs or disability, web accessibility is a requirement for websites. Today, there are large numbers of websites which fail to meet the requirements of web accessibility. This paper assesses the barriers and explores methods of encouraging compliance with accessibility guidelines.

Keywords: Accessibility; Disability; Web Accessibility Guidelines (WCAG); U.K. Disability Discrimination Act (DDA).

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Currently, organizations and governmental institutions are embracing the advantages presented by ecommerce to reach an ever increasing audience and potential clients as the expansion of the World Wide Web (WWW) continues to exceed growth expectations. The potential clients are made up of users with varying needs or disabilities. According to Lazar et al (2004, p270), within the context of web accessibility, user disabilities are classified into 3 groups which are cognitive, motor or sensory. For a website to be truly inclusive, it must ensure that contents are available to the widest range of users. This involves incorporating web accessibility features which make web resources accessible to users regardless of disability. For instance, ensuring that assistive technologies such as Jaws can capture text on the website will ensure that users who rely on such technologies can access resources on that site with ease. In an attempt to address this issue, WCAG1.0 was adopted in 1999. Its successor, WCAG 2.0, provides to offer a more updated and nuanced set of guidelines to web developer. WCAG aims to encourage the design and deployment of web sites that are accessible to users with a range of disabilities.

Despite these efforts, in a recent survey 21.7% of web site administrators admitted that their websites were inaccessible to users with visual impairments (Lazar et al, 2004). This paper explores the reasons why a large number of websites remain inaccessible to people with disability and assesses the suitability of the WCAG guidelines and how it applies to the web developer. This paper is structured as follows; in section 2, a brief insight into the correlation between web accessibility, its failings and users. Within the same section, discussions on possible causes of such failings are presented. Finally, in section 3, conclusions and recommendation are made. The research for this paper was conducted by literature review.

2. Web Content and Accessibility Guidelines

What is Web Accessibility? Sierkowski (2006) states that “Web accessibility is the ability for a person using any user agent (software or hardware that retrieves and renders a web content) to understand and fully interact with a website’s content”. To simply this definition, Web Accessibility can be quantified in terms of how easy or difficult it is for individuals to use website features. For instance, for users that suffer from partial visual impairments, are there website features included by web developers that would enable such users to enlarge the size of

the text to make contents more visible. Although there are assistive technologies that enable users with disability to use computers with ease, most websites still fail to meet the accessibility requirements of users categorized as disabled (Lazar et al, 2004, p270). Research conducted by Kuzma (2010, p141) shows that, it is estimated that within the working age population of the United Kingdom (UK), 5.7 million people suffer from a type of physical impairment according to the Office for Disability Issues.

2.1 WCAG 2.0 and Possible Issues

The WCAG 2.O Specifications supersedes the previous WCAG 1.0 standard, taking into consideration is the evolving nature of advancements achieved relating extra features onto the web. Reid and Weaver (2009, p129) suggests that WCAG 1.0 standard had testability issues. Therefore, the USA government did not adopt it. WCAG 2.0 is one of the three components of WAI. The other two components are; User Agent Accessibility Guidelines (UAAG); Authoring Tool Accessibility Guidelines (ATAG). Although, WGAG 2.0 aims are to offer a consistent definition, such aims have not been achieved. (Reid and Snow-Weaver, 2008, p110). Could this be the reason behind why websites fail web accessibility test? Sloan et al (2006, p121) believes that the cost and complexities of such test is a contributing factor.

The WCAG 2.0 consists of a checklist of criteria that must be met before a website is certified as compliant. The grade points are achievable. WCAG 2.0 defines 3 grades of A, AA, AAA in line with the number of criteria achieved in correlation to the number of checklist boxes ticked, as specified by WCAG 2.0 standard (Caldwell, Cooper, Guarino, & Vanderheiden, 2008). The guidelines do provide easy to understand instructions on how to ensure accessibility standards are met. For instance, guidelines on how to include alternative text for applets, images and image map hotspots are part of the recommendations (Spindler, 2002). So why do web sites still fail basic accessibility test? Sloan et al (2006, p122) acknowledges that the motives behind WAI initiative was genuine but notes that there are deficiencies on the issue of clarity. Perhaps, that could be put down to subjective misinterpretation of WCAG 2.0 guidelines. More clarity on technical application of these guidelines is needed.

2.2 Cost

Another reason why developers fail to adhere to WCAG guidelines is cost. Richards and Hanson (2004) highlighted this perceived problem in their piece: Web Accessibility: A Broader View. They observe that the cost of adding Web accessibility enhancements to some sites could require making adjustments to thousands of legacy web content (Richards & Hanson, 2004). Enterprises may also judge that this cost will not equate to additional business, therefore the additional investment will not directly equate to an increase in revenue.

This analysis could lead to a business decision not to make the relevant changes. The authors believe that this is a false choice since 18% of the UK population is disabled as defined by the Disability Discrimination Act, holding a combined spending power of £80 billion (Unknown, No Date). These are potential users of an enterprise's online services boosting revenue. Investing in accessible web sites could also save resources which may be lost in legal action that could result from inaccessible websites.

2.3 Legal Enforcement

The need for creation of accessible websites is widely accepted. In the United Kingdom, the Disability Discrimination Act (DDA) covers the issue of ensuring that websites are accessible to blind and disabled users. However, the Act focuses on the broader issue of denial of service to people with disabilities. References to accessible websites (in sections 5.26 and 5.23) are vague and therefore difficult to enforce. A recent survey by the Disability Rights Commission (DRC) showed that 81 per cent of UK websites are inaccessible (Thomson, 2006). The British Standards Institute (BSI) released a set of standards seeking to clarify the DDA with specific regard to Web Accessibility. These standards aim to provide more descriptive guidelines to developers for deployment of Accessible websites.

2.4 Web Developer and Ignorance of Web Accessibility Requirements

Due to the number of inaccessible websites and the time that has elapsed since the research began on accessibility standards, it is understandable that critics are arguing that enough has not been done to address accessibility issues. In the study conducted by Spindler (2002, p152), accessibility test conducted on library websites of higher institutions in American, showed that

56% had some problems in relation to alternative text for image tags.

Ultimately, who or what should shoulder the blame? WCAG 2.0 guidelines, the web developer or management, which disregards the integration of web accessibility features into their web sites from the onset due to cost. One may easily conclude that the causes are either lack of awareness for some web developers or ignorance on the part of most. However, Sloan et al (2007, p138) suggests that, the WCAG 2.0 standard has been adopted by many organizations. The WAI has been successful in creating adequate awareness. The manuals on web accessibility are available at the WAI website (Caldwell, Cooper, Guarino, & Vanderheiden, 2008). Adding to this argument, the authors acknowledge that web development tools do exist that will aid web developer to test web site accessibility through the development cycle, such as Dreamweaver.

Conclusion

There are two major contributing factors that must be addressed in order to further encourage the deployment of accessible websites. One of these is the issue of lack of clarity of the guidelines and laws covering discrimination with regards to web accessibility for people with disability. While the BSI guidelines (BSI, 2010) provide detailed information in the areas of testing and deployment among others, the fundamental issue of enforcement remains. A fair-trade approach could also be introduced where websites which are certified as accessible are recognised. This would perhaps tilt internet traffic towards those sites, penalising inaccessible websites.

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