Web Accessible Adoption of Instructional Website, Application and Online Material Development

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ABSTRACT

Many of the websites, applications, and supporting digital materials that assist students in the online environment are developed by faculty. Unfortunately, literature has indicated that many of these online materials may not be accessible to everyone and subject universities to potential lawsuits. This theoretical article discusses some existing lawsuits and policies with the intention of helping faculty improve educational web compliance. This research can serve as an important step towards the faculty adoption of accessibility evaluation tools and checklists that could result in better and more accessible digital materials.

KEYWORDS

Accessible Content, Accessible Websites, ADA, Adoption of Accessibility Evaluation Tools, Section 508, Website and Application Development

INTRODUCTION

Over the last 15 years, the development of website, apps and other online materials within the education sector has exploded. Today, many educators use or develop websites and apps for connecting and aiding with student learning (Hsu, & Ching, 2013; Johnson, Levine, Smith, & Stone, 2010). While the use and development of websites and apps are useful, there are many challenges that prevent compliance with the Americans with Disabilities act (ADA). Currently, many of the educators develop or use websites and applications that are not accessible to everyone and violate the updated Section 508 of the Rehabilitation Act of 1973 and the Americans Disability Act (ADA). Some of the main reasons that content development many not be ADA compliant materials include lack of faculty awareness, education, and training (Berg, 2019). To ensure the development of ADA compliant websites, applications or any other digital content placed online an educator can deploy usability testing prior to uploading to the web for classroom use. The rest of this paper is as follows. First is a discussion of the importance of ADA accessible websites and applications. Second is a review of

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websites and electronic accessible laws and policies. Lastly, this paper concludes with suggestions of some free accessibility evaluation tools that educators can adopt.

LITERATURE REVIEW

Importance of Accessible Websites and Apps

Accessibility is an important topic to address and examine. Approximately 15% of the world’s population has a disability (Schrader-King, 2019) and the percentage of people with disabilities is expected to increase (Rahmatizadeh & Valizadeh-Haghi, 2018).

Many research studies have examined website accessibility issues within the educational setting. The studies are not limited to the United States. For example, Fernandez, Roig, and Soler (2010) utilized the “Test de Accesibilidad Web” (TAW) tool to examine 77 Spanish university websites for accessibility. They found less than one percent of the websites examined were accessible from a legal requirement perspective. Some of the accessibility issues found were not providing text for non-text elements, proper HTML and CSS grammar elements, and using relative units in stylesheet property values.

Additionally, Aziz, Isa, and Nordin (2010) examined the accessibility of 120 Malaysian university websites. Several accessibility issues were found within the Malaysian websites. Similarly, Kurt (2011) evaluated 10 Turkish University websites for accessibility issues. However, he found that all of the university websites had accessibility problems. Some of the main accessibility issues found in this study included challenges with use of JavaScript and Flash navigation elements, lack of inclusion of ALT text with accompanying images, inability to be viewed in lower resolution screens and failure of websites to be navigated solely by keyboard.

More recently, Kamal, Alsmadi, Wahsheh, and Al-Kabi (2016) conducted a similar web accessibility study on Jordanian University websites and Iseri, Uyar, and Ilhan (2017) examined websites of Cyprus University websites. Both studies found accessibility issues at university websites and they demonstrated the importance of accessibility testing.

Finally, Rahmatizadeh and Valizadeh-Haghi (2018) used automated web evaluation tools AChecker and Functional Accessibility Evaluator (FAE) to examine the home pages of 50 medical university in Iran. They found that only 2 Medical University homepages didn’t display any accessibility errors.

While the above research studies addressed university-sponsored websites, it is also important to examine faculty-developed websites, applications and other online materials for accessibility compliance. This is because access to the web is important to students and university employees (Solovieva and Bock 2014). Also, since the passage of the Telecommunication Act of 1996 and the updated Section 508 amendments there has been an increase in lawsuits concerning online teaching materials developed by the faculty and posted online.

Several cases exist regarding non-ADA compliant online content within the educational sector regarding faculty developed websites, apps, and other online materials. For example, Harvard University and Massachusetts Institute of technology (MIT) have provided a vast amount of course content to be freely accessed online to students around the world. However, only some of the online content was properly captioned. In 2015 a federal lawsuit was filed against Harvard University and Massachusetts Institute of Technology (MIT) regarding online lectures, podcasts and other educational materials being non-complaint with Americans With Disabilities Act and the Rehabilitation Act of 1973 (Lewin, 2015; Sableman, 2016).

Similarly, in 2017, The University of California, Berkeley, removed free online access to thousands of their educational materials. This action was a result of a U.S. Justice Department order to make their educational content accessible to people with disabilities (Straumsheim, 2017).
A User-Driven Approach to Developing Ambient Assisted Living Systems for Older People: The SOPRANO Project
Intelligent Technologies for Bridging the Grey Digital Divide (pp. 30-45).
www.igi-global.com/chapter/user-driven-approach-developing-ambient/46725?camid=4v1a

The Adoption of Web-Based Supply Chain Management Applications: An Institutional Perspective
www.igi-global.com/article/adoption-web-based-supply-chain/70409?camid=4v1a