## **Evaluating the Accessibility of Online University Education**

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#### **ABSTRACT**

The rights of disabled students are protected law in nearly every country. However, the lack of awareness of the laws and the need to make web pages accessible has created barriers to fully implementing the intent of these laws. These laws typically go beyond web pages to include all instructional devices including e-readers, social networking sites, and smart phone apps. This paper takes a look at the requirements of accessibility laws, the formation of the accessibility initiative, and the resulting WCAG 2.0 standard. Accessibility testing tools for websites and web content are discussed and then used to measure the level of compliance for a number of universities. It was found that almost all university sites checked had multiple accessibility errors. Finally, a number of recommendations are made based on the compliance issues found and on the terms of several U.S. Department of Justice consent decrees.

#### **KEYWORDS:**

Accessibility, ADA, Disabilities, Learning Management System, Section 508, WAI, WCAG

#### INTRODUCTION

For years advocates for the disabled have been fighting to apply the Americans with Disabilities Act to ecommerce, mobile apps, and by extension to universities (Loten 2014). In the past such claims were often dismissed because of a lack of guidance for websites provided by the Department of Justice (DOJ). This changed on March 6, 2014 when the DOJ announced a consent decree against H&R Block that their website, mobile apps, and tax preparation products were not accessible to the disabled. The DOJ alleged that H&R Block failed to make these services accessible and therefore violated Title III of the ADA. The consent decree requires that H&R Block adopt accessibility measures conforming to WCAG 2.0 (Paulding 2014). In addition to adopting WCAG 2.0, H&R Block must meet a number of administrative requirements including appointing an accessibility coordinator; maintaining a disabled-accessible mechanism for website visitors to make comments and complaints; testing all web content for accessibility; training at least 5% of their customer service personnel to respond to disabled website users; and retaining a third party consultant to conduct annual evaluations. Paulding (2014) went on to note that these "aggressive requirements" may have reflected the fact that the National Foundation for the Blind (NFB) initiated the lawsuit and had significant input into writing the terms of the decree. Paulding (2014) also added that "owners and operators of websites should note that similar commitments may be necessary to resolve web accessibility litigation in the future."

Time will tell if this consent decree has a direct effect on universities, but judging by the number and type of lawsuits listed by (Carlson 2015), administrators ought to pay attention. Carlson (2015) lists over two dozen universities and community colleges that have recently settled lawsuits. Many of the suits were filed by the NFB on behalf of students and deal directly with nonconforming technology. The growing use of inaccessible technologies such as certain e-readers, social media sites, and smart phone apps place universities at greater risk of a lawsuit. Parry (2010a) detailed the problems faced

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by a blind journalism student at Arizona State University. These included a Facebook App, use of a Kindle E-reader, and an online workbook used in a Spanish class. These problems ultimately resulted in a lawsuit against Arizona State that was settled by the Department of Justice. Babu (2015) tested several of Facebook's interaction features and found that functions like reading, writing, friending, and posting messages to be significantly challenging. Participants in his study needed additional time, effort, and occasionally sighted help.

In the United States, the rights of disabled students are protected primarily by the Americans with Disabilities Act (ADA) and sections 504 and 508 of the Rehabilitation Act of 1973. Yu (2003) asserts that the concept of accessible design is becoming an important aspect of web design, however, the lack of awareness of the laws and the need to make web pages accessible have created barriers to fully implementing the intent of these laws. In general, American universities have an office dedicated to creating policies and ensuring that students receive proper accommodations for their disabilities, but it is up to the student to ask for accommodations and to complain when they do not receive them. A study (Roberts, et al, 2011) performed in 2011 found that disabled students perceived that their disability had a negative impact on the ability to succeed in online courses, but most stated that their requests for accommodation were met. Whether or not the accommodation requests can be met equally well for massive open online courses (MOOCS) remains to be seen. IT Staff and faculty members may or may not be aware of the myriad of rules that can come into play when they post class notes on the web, use a learning management system to support their course, or how the blind actually perceive their work. Asakawa (2005) provides some insights into what the web looks like as viewed through screen readers and how designers can improve their experience. He concluded that web designers should experience how disabled users access the web in order to fully understand accessible and usable sites.

This paper takes a look at the requirements of accessibility laws in several countries, the formation of the World Wide Web Consortium's accessibility initiative, and the resulting WCAG 2.0 standard. Accessibility testing tools for websites and web content are discussed and then used to measure the level of compliance for a number of universities in both a vertical and horizontal manner. Finally, a number of recommendations are made based on the compliance issues found and on the terms of several DOJ consent decrees.

#### BACKGROUND

A University's and therefore a faculty member's responsibility to accommodate students with disabilities are dictated by several laws, each of which apply to different situations and are often open to interpretation. Most Universities will have a set policy created by their legal department to help guide faculty members. Different countries have different laws pertaining to accessibility. A university may have to satisfy the requirements of multiple countries if it conducts online learning or exchange programs with that country. (WebAIM 2015) provides a synopsis of accessibility guidelines in various countries.

#### **Australia**

In 1992 Australia passed the Disability Discrimination Act (DDA). This act provides rules that directly apply to web accessibility. Section 24 provides that it is unlawful to discriminate on the grounds of disability by refusing to make goods or services available. This act was tested by a lawsuit directed at the Sydney Organizing Committee of the Olympic Games for not having a website that was accessible as required by the DDA. In their defense, SOCOG stated that the "Alt" label problems were being resolved, the website was too big causing an unjustifiable hardship, and it would take a person year of effort to fix the problem. These reasons were repudiated by expert witnesses (Worthington 2000). The SOCOG lost the case and was ordered to make changes. They refused and were fined \$20000 Australian Dollars (Byrne, 2005) (Australian Human Rights Commission 2000). Although the fine was relatively small compared to the cost of compliance, the case did set a world wide precedent.

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