Chapter 21
Web Accessibility Essentials for Online Course Developers

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ABSTRACT

According to Section 508 of the Rehabilitation Act of 1973, federal agencies must provide access to electronic and information technology to individuals with disabilities who are federal employees or members of the public. As institutions of higher education (IHE) put more services and resources online, formatting pages so they are accessible to users with disabilities is essential. Although IHEs are attempting to comply with Web Accessibility Standards with their public Web pages, full compliance has been difficult. In addition, the growth of online courses has only complicated the issue. Although learning management systems (LMS) may claim to be Web accessible, accessibility of individual content items at the course level, is set by the course developer. This chapter will discuss essential information necessary for online course developers to develop Web accessible content.

INTRODUCTION

When designing online courses, there are so many components to prepare that the needs of students with disabilities can be overlooked. Not that this is intentional, but preparing for students who are not seen by the instructor allows him/her to make assumptions that all students will be able to access the information. Paciello (2000) notes that

The fact that the Web is inherently inaccessible is not the result of some malicious or premeditated intent. The Web followed a very typical development process based on standard engineering processes that, all too often, do not include considerations for people with disabilities. Web page designers and content producers observe similar methods. Subsequently, most advanced technologies are not accessible to people with disabilities. Until now, it was satisfactory to create an assistive or adaptive device (or application). Until now, very few laws or standards mandated accessibility (p. 21).

Students who opt for online learning may face many barriers in accessing their courses, and the barriers do not stop with there. They may have difficulty obtaining schedules, registration materials, grades, library services, the Help desk, and evaluations, to name a few. It is similar to the student in a wheel chair who shows up for class only to find it is located on the second floor, and there are no elevators. As Finkelmeyer (2008) states, "For many young adults, making the step from high school to college can be an unnerving experience. For those with disabilities – either physical or mental – taking that jump to an institution of higher education can be downright scary" (¶1-2). Whether the classes are face-to-face or online, it is imperative that educators find tools to make them as accessible to everyone as possible.

This chapter will discuss essential information necessary for online course developers to develop Web accessible content. The chapter will be divided into three sections. First, there will be a discussion of Web accessibility using the tenets of Universal Design for Learning and the disabilities affected by Web accessibility. Next, issues related to Web accessibility and online courses will be discussed. Finally, tools for evaluating course sites for accessibility and ways to make online course components accessible will be given. This will include a discussion of Web accessibility standards and guidelines as well as the accessibility of learning management systems and using multimedia in online courses. It is hoped that the reader will take away a better understanding of what it means to be prepared for all students who enroll in a class and a few suggestions for accommodations that can make this possible.

BACKGROUND

Universal Design for Learning

Koppelman and Goodhart (2005) define the term "disability" as "a restriction of functional ability and activity caused by an impairment (such as hearing loss or reduced mobility" (p. 283). This could also include visual, motor, and cognitive impairments. For students with disabilities, making a course accessible means simply, as Paciello (2000) states, "information, regardless of form, structure or presentation that can be easily accessed by any person, regardless of ability" (p. 373). This does not mean that a course will be absolutely accessible by everyone but that legally and ethically, we must try to make it as accessible to as many people as possible. The tenets of Universal Design for Learning are appropriate and useful to this end. Rose and Meyer (2000) note that "Universal Design for Learning (UDL) is a research-based set of principles that together form a practical framework for using technology to maximize learning opportunities for every student" (p. vi). Universal Design for Learning has its roots in Universal Design, an architectural term that promotes developing materials and buildings to accommodate diverse populations from the outset rather than retrofitting them at a later time. The inclusion of elevators in all modern buildings rather than adding ramps later is an example of universal design. The elevators may have initially been intended for use by people with mobility concerns, but they have become universal in that everyone uses them. This is the premise for UDL as well – that materials or functions may be designed for those with disabilities but may, in fact, be used by anyone with preferences for those options. The Partnership Grant at the Ohio State University (2004) defines UDL by stating that

Universal design is an approach to designing course instruction, materials, and content to benefit people of all learning styles without adaptation or retrofitting. Universal design provides equal access to learning, not simply equal access to information, Universal design allows the student to control the method of accessing information while the teacher monitors the learning process and initiates any beneficial methods (¶1).

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