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Study of Online Learning Platform Systems and Accessibility at ASU Online

Summary

My investigation of determining which eLearning platform is best for students with disabilities for Dr. Philip Regier, executive vice provost and dean of Arizona State University (ASU) Online, shows that Blackboard, Sakai, and Moodle are equally focused on accessibility and usability for all learners. Whether a university chooses a free learning management system (LMS) or an expensive one, such as Blackboard, depends on its financial and IT resources. While adhering to The Web Content Accessibility Guidelines (WCAG) 2.0 Level and The Section 508 Standards of the Rehabilitation Act in the United States, I suggest that an online technology course be designed to train all online learners at ASU Online how to better navigate in Blackboard. I also recommend that Dr. Regier implements quarterly audits and usability/accessibility testing to ensure equal access and legal compliance at ASU Online.

Introduction

Enrollment in university online courses continues to increase, yet high dropout rates remain problematic with online students (Lee & Choi, 2011). A number of factors may be affecting the dropout rates of these students. Furthermore, if one factors into the equation that more students with disabilities are enrolling into online programs (Haynie, 2014), it is imperative that academic institutions use an accessible e-learning platform. It is especially important for students who are blind, visually or hearing impaired, or have manual dexterity limitations, because online learning could potentially present more hurdles than opportunities.

Arguably, one factor to online learning success is an accessible e-learning environment. It is common knowledge that technology can enhance learning. Consequently, it is vital to have an accessible online LMS that serves all learners at ASU.

This investigation followed communication between Dean Colston and Associates and Dr. Philip Regier, executive vice provost and dean of ASU Online. The purpose of the inquiry was to compare three major online learning management systems (LMS) used in higher education and to determine which one is best for student accessibility. The time frame of this investigation will occur from August-September 2016. As a result, the scope of the study is limited by time constraints (course deadline) and by the limited number of learning platforms that could be feasibly reviewed for this investigative report.

The study compared the features of Blackboard Learn 9.1, Sakai 11, and Moodle as they apply to accessibility.

Comparative Analysis of Three eLearning Platforms

Blackboard Learn 9.1

Blackboard Learn, a web-based server software, is focused on being accessible and user friendly for individuals with a variety of disabilities. Blackboard is expensive but pays for itself in the long run. By being committed to creating barrier-free online learning environments, Blackboard has many features that support learners with visual and/or hearing impairments, mobility limitations, as well as those students with learning disabilities. The Blackboard (2016) features are extensive and well-documented, but here are a few highlights:

- If you are adding images to your content, you must define alternative (alt) text for them.
- Blackboard Learn is developed against the W3C Web Content Accessibility Guidelines to ensure its compatibility with the latest versions of assistive technology including screen readers such as JAWS and VoiceOver.
- If typing is difficult, the Record from Webcam (Video Everywhere) feature, which is embedded in the content editor, allows you to create voice responses to assignment, discussion boards, blogs or within any other Blackboard Learn area where the content editor is present.
- If you are adding video or other multi-media content to your course, you must include descriptive captions for the content to ensure users with hearing impairments are able to consume it. Blackboard adheres to Section 508 standards of the Rehabilitation Act. (para. # 3-7)

Sakai 11

Sakai 11, a free educational software platform, is committed to accessibility and usability for people with disabilities. It is worth noting that free eLearning platforms can require a significant IT investment and further development. The WCAG 2.0 guidelines and the US Section 508 amendment are followed by Sakai core developers. Overall, Sakai rates its accessibility of the LMS as good with a few exceptions. According to Clare (2013), here are a few Sakai platform features:

- Modern web accessibility techniques such as WAI-ARIA landmarks are used to enhance navigation (e.g. role: banner, navigation, main).
- Frames have meaningful titles.
- Menus are keyboard accessible and are understandable with JAWS.
- Overall, the user interface is consistent and relatively easy to navigate and understand.
- Color contrast is generally good. (para. # 10)

Moodle 2.3

Moodle, a free open-source eLearning platform, is also aware of the importance of accessibility for all learners regardless of ability. Moodle has created accessibility collaboration groups with the goal of improving accessibility within the course rooms. Like Sakai and Blackboard, Moodle follows Web Content Accessibility Guidelines

(WCAG) 2.0 and Section 508 Standards of the Rehabilitation Act. Here are few built-in accessibility features:

- A prompt to add alt text whenever you add an image to a page.
- Prompts for adding captions and defining header rows when you add a table to a page.
- Accessibility checker and screen reader helper right in the text editor. (Accessible U, 2016, para. # 7)

Methods for Improving eLearning Accessibility

Based on the research, all three virtual learning platforms are committed to adhering to specific accessibility and rehabilitation guidelines. To promote best practices in online learning for all students, I believe Dr. Regier should closely follow these two gold standards:

- The Web Content Accessibility Guidelines (WCAG) 2.0 Level
- The Section 508 Standards of the Rehabilitation Act in the United States

Using these standards for Blackboard at ASU Online, I suggest that Dr. Regier spearhead a new online technology course that trains students with disabilities how to better navigate online. This action may increase inclusivity, increase student retention, and decrease legal liability, which will be cost effective in the long term.

Additionally, I believe that Dr. Regier should support usability and accessibility testing and quarterly audits within the eLearning platforms to identify any problems, especially as technology changes. Feedback sought from online faculty and students with various disabilities should be part of the overall accessibility strategy. These suggestions are advised to ensure full accessibility, software compatibility, and legal compliance.

Conclusions

The study shows that all three eLearning platforms have a very good degree of awareness for accessibility and usability. Whether a university opts for the free eLearning platform or the more expensive one, such as Blackboard, depends on its financial and IT resources.

Recommendations

In the spirit of The Web Content Accessibility Guidelines (WCAG) 2.0 Level and The Section 508 Standards of the Rehabilitation Act, I suggest that Dr. Regier oversees the creation of a new online technology course that is designed for all students of all abilities to learn how to better navigate in Blackboard. This could set a standard of best practices at ASU Online. Finally, I recommend that Dr. Regier implements quarterly audits and usability/accessibility testing to ensure equal access at ASU Online.

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