Jason Wells

University of Arkansas

ETEC 5373

Abstract

In the University of Arkansas's M.Ed. in Education Technology (ETEC) program, ETEC 5373: Web Design is a required course. During the course, the focus is upon planning and developing a website project. I selected to work with Cornerstone Free Will Baptist Church in Charleston, Arkansas. The website was developed to meet accessibility and compatibility regulations. As the developed proceeded, the clients were able to provide input into the pages and content needed for the site, along with any community barriers that should be addressed. A barrier of concern was language, which would be addressed with Google Translate on the website. At the conclusion of the course, a functioning accessible and compatible website was provided to Cornerstone in order to best move forward with updating their online presence.

Description

In the spring of 2014, I took the course ETEC 5373: Web Design. The course objective was to design, create, and analyze a website. Skills focused upon the website creation was the use of media-based learning for a web-based project and focused upon addressing barriers that maybe faced by the project viewers. A few of the topics that were introduced during the course were how to address both user accessibility and disability laws, copyright use, search engine optimization (SEO) and website testing.

In ETEC 5373, the final project was to create a website for a non-profit or education organization. I selected to work with Cornerstone Free Will Baptist Church of Charleston, Arkansas. Cornerstone is a non-profit, religious organization which serves Charleston and the surrounding communities. The primary goal is spiritual guidance and outreach to both members and the general community. In the spring of 2014, Cornerstone was researching other options for an online web presence. It was my objective to develop a website that met the needs of the client and the standards for the course. This included: ensuring the website was accessible, had browser compatibility, met all copyright and fair use laws, and was targeted to the audience.

In beginning the project, the goal was to understand the needs of the client and what should be presented in the website. This included a calendar of events, online sermon audio, church beliefs, and a contact us section. In adding these pages, it assists in targeting Cornerstone's perspective audiences. During the development stages, the clients were kept informed of the process and provided input to the information that would be included. Cornerstone provided basic church focused images that met the guides for public domain and fair use. During points of the website's development, it was not only reviewed by the client, it was

also reviewed by a peer within the class to ensure the compatibility and accessibility standards were met.

At the end of the course, the final project was complete and Cornerstone had a compatibility website that allowed them to better gage the direction to move forward with their online presence.

Standard 3: Utilization

3.2 Demonstrate ability to develop a web-based project for the dissemination of media-based learning.

During ETEC 5373, this standard was met in the usage of software components such as Adobe Dreamweaver and Photoshop. Both software prototypes were utilized to develop the Cornerstone website in order to present a clear and direct message to the community being served. In the duration of the project's creation, HTML and Cascading Style Sheets (CSS) were implemented. On each page of the website, it features the use of Google Translate. In using this tool, visitors are allowed to see it in use in translating webpages. The photo gallery page includes the use of Flicker. In its use for Cornerstone, it illustrated of how online photo galleries can be used. An advantage to using galleries such as Flicker allows for quick web based adjustments off of the institutions webpage, once embedded. These can be useful tools for teachers or schools to utilize for classroom or district sites. Finally, the contact page highlights the use of a Google form. Forms have been found to collect information quickly online. As the incorporation of Google classroom and tools continue, this presents another option for institutions. The completed final projects supports my ability to create a web-based project with the content from the ETEC 5373, Web Design course.

3.4 Demonstrate ability to identify and address barriers impacting the utilization and implementation of media-based learning methods.

In the development of the website project for ETEC 5373, barriers that were to be addressed, included the vision impairments and language differences. To address the possible language barriers that could occur within the greater Fort Smith area, a Google Translate tool was embedded within each web page. In adding this tool to each page, visitors have the ability to adjust the language of all web based text. This includes articles, website menu, and messages posted. To address the barriers that might occur within vision impairments, the website was designed to be clear and concise. A concise design presents easier navigation for the user. In addition this design will allow for screen readers and visitors to read the website easier. It is important to note that screen readers read through a web page one line at a time and across. The reader will also use the HTML structure such as "navigation" and "header" to determine points on the page. The website was checked to ensure it met the requirements of the American with Disabilities Act (ADA) that regulates accessibility of websites. To test the website, an online testing tool was used. An example tool is WAVE (http://wave.webaim.org). Errors that were found and could be addressed were done so prior to the final project. The main error that was found on each page was the Google Translate function. However, this tool is standard across sites and Google. In the course readings, we also discussed various ways to determine to ensure the projects met hardware and software requirements. One of the ways, was to use compatibility testing tools online. For this project, Firefox's accessibility menu bar found within browser was an excellent tool to begin the process with. As the process continues, it is important to maintain testing as the site progressed, examining it both from the prospective of the developer and user.

This was done by publishing various pages that would be used in testing to ensure it was working and compatible. During the project stages, issues did occur. However, they were addressed by utilizing a checklist of standards for the final project that had to be met by the completion of the course. Finally, the software requirements were addressed by the use of Adobe Dreamweaver for the HTML and Cascading Style Sheets (CSS) which produced the final website project for Cornerstone.

Reflection:

At the completion of the ETEC 5373: Web Design class, I felt extremely confident in my ability to follow through on the development process for future websites. The skills I felt valuable focused primarily on the ADA capabilities and accessibility of various features. I enjoyed studying upon these two issues more because in my current profession. I serve various students with a range of needs. Students who enter my classroom have vision, hearing, and learning disabilities. Ranges may vary from limited to severe. For example, students may have vision problems coming into my class. As a result, they would need to utilize a screen reader with our online text. Therefore, the text needs to be in a format that functions clearer and better with a screen reader. In many cases, this maybe simply providing an Adobe PDF copy of the document. Students suffering from a limited amount of hearing loss can benefit from the use of a screen reader as well. However, these students find the use of a clear, not slang, text most useful. In another case students with a learning disability or need may face issues navigating a major website or course. In keeping with a simple and concise plan, it will ensure students remember the location of lessons and assessments. This along with the fact various equipment types are utilized, it is important lessons or websites in this case are designed to meet and

eliminate these barriers. For example, things that will work on a MAC or PC will not work on a chromebook. If the project (or lesson) is to accomplish the set mission, having this accessibility knowledge will be beneficial. In the future, I hope to be able to retain my knowledge and skills learned, including the use of Adobe Dreamweaver, HTML, and CSS. These three will increase in value as technology continues to improve and become more utilized in society. In reflecting about how this affects my career going forward, I find it beneficial to several key elements I have learned. For example, in preparing to review the ADA compliance rules, one thing I noticed right away is being prepared. Preparedness is a critical part in designing lessons, as they should be concise and clear. Second, is simply again the accessibility across the board. It is important to have lessons in multiple formats or simply historical documents in either a Word or PDF document. Next, as I currently teach classes with Blackboard and include images, I continue to add "alt" tags and image descriptions for students who need the screen reader devices. You will be amazed at amount of assistance this provides students who maybe visual impaired or simply enjoy using the screen reader. Finally, the most important use has been the incorporation of audio descriptions and captions for videos. For students who face hearing disabilities have a text to read is critical to their success. Ultimately, my goal as an educator is to see student success and through it all, I continue to realize the value in providing opportunities for all. At the conclusion of this project and course, I feel confident in the continued use of the skills and knowledge learned in the ETEC 5373: Web Design course in my education career.