Instructional Designs with WordPress: Tools and Processes for Four Education Websites

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Abstract: This paper, website, and presentation looks at the WordPress platform used to create four education websites at The Equity Project at Indiana University. The goals are (1) to illuminate the efficiency and versatility of this website platform for instructional and organizational purposes and (2), to look at how the ADDIE model and other related process frameworks were used and improved in a real world design situation. With a hybrid ADDIE and Agile process, we were able to implement these websites on time. This is to be presented as both a hybrid design case study and web development workshop.

Keywords: Instructional, CMS, WordPress, website, usability, ADDIE, Agile, process

Introduction

WordPress is a flexible, intuitive, and mature open-source website development platform that may be used for a wide variety of educational websites (Smith & McCallister, 2011 2012). This paper, accompanying website (with screenshots and survey data at http://indiana.edu/~testweb), and conference presentation demonstrates the utility of the WordPress platform in a real-world instructional design situation. Also discussed are the workflow approaches taken from several process models (ADDIE, Agile, and Scrum) which helped us to create our websites quickly given our organizational circumstances.

1. WordPress – easy and efficient web development

WordPress allows for easy development of websites by technical or non-technical users. It is offered as free, open-source software. Originally designed as a blog platform, WordPress is now used for a wide variety of websites as well. With the availability of many plugins, accessory tools, and a strong developer community, WordPress offers an instructional de-
veloper a versatile tool for creating websites. Some potential uses for WordPress include the creation of learning management systems, discussion forums, blogs, surveys and quizzes, social media, video conferencing, displaying instructional images/audio/video, web-based portfolios, and mobile learning (Roseth, 2013).

2. The Equity Project scholar Websites

2.1 About The Equity Project and main Equity Project website

The Equity Project is a small grant-funded research group at Indiana University. I joined this group as an instructional developer in August 2011 with a responsibility to develop, maintain, and eventually redesign their instructional websites and discussion forums. Common problems with all of the old websites included 1) poor organization / navigation, 2) obsolete contents, 3) broken links, and 4) a poor and dated appearance “(Chung, personal communication)”. The current Equity Project website is over 5 years old and was initially adequate but limited in functionality and inconvenient to maintain. The new Equity website is more visually appealing, easy to update, and includes several social media functions.

2.2 Atlantic Philanthropies Grant - Research Collaborative

We needed to create a new, simple website dedicated to our Atlantic grant with basic features (e.g., about statement, resources, a list of collaborators and contact information). Usability studies and surveys on color schemes/fonts/header designs were attempted, but only several general requirements were given to build from. Development time was only one month. This was our first WordPress website.

2.3 Equity in Indiana Data Website

The Equity Project offers data on school discipline to over 300 Indiana school districts annually. The previous website used dropdown menus that retrieved database queries. Data
formats changed in 2012 rendering the queries obsolete. We decided to rebuild this site with WordPress for expediency. New data was overdue and few requirements were known. With simplicity in mind (Garrett, 2010), complete data pages were created for each school so users could compare data instead of the less useful isolated queries. Other changes were needed (e.g., labeling, content, navigation, spacing, and other details) and implemented. Some Agile principles such as “quick iterations” (Rubin, 2012) enabled us to finish this website in 2 months with users reporting high satisfaction.

2.4 PBISIN – Positive Behavioral Interventions and Supports (PBIS)—Indiana

This website represents our PBIS initiative in Indiana. The old PBIS Indiana website was incomplete and disorganized (e.g., it included a mix of top, left side, and page-internal navigation that was confusing). Usability surveys were completed by staff members that addressed needed improvements (n=10). Site resources were hard to find. The most urgent need was to implement logical information architecture of labeling, and navigation, which are critical components in user-centered web design (Garrett, 2010).

3. Process: Deviations from the standard ADDIE model

With strict deadlines and evolving needs, we had little time for in-depth analysis (ADDIE – stage 1). A designer gets user information depending on the sources (users) and time available (Boling & Frick, 2002).

Key factors in all projects were communication, resources, external decision makers, and time. Our process became more of a repeated Develop–Evaluate version of ADDIE, or DEDE. In its standard form, ADDIE can be inefficient and we found ourselves unable to follow it as defined (Gordon & Zemke, 2000).
Conclusion

WordPress is an efficient tool for creating educational websites without extensive programming. ADDIE was inefficient for our projects due to various organizational circumstances. Openness to new design processes (e.g., Agile methods) is preferable to strict adherence to any model (Smith & Boling, 2000). Being adaptive and flexible as design changes occurred helped us speed up development. For more detailed information on our websites and survey data, please visit the companion website for this paper at http://indiana.edu/~testdata.

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References


