Guest Pieces

Abstract

The authors' greatest interest in preparing this text was to encourage a variety of voices with disparate experiences with WordPress to contribute to the overall story of using WordPress in library settings. A great number of guest authors met our call to participate in the publication by adding their stories in the form of reflective pieces, best practices, technical walk-throughs, and how-tos. In this chapter, librarians from public, school, and academic institutions, instructors in higher education, and an archivist share their experiences with WordPress in libraries.

CREATING DYNAMIC SUBJECT GUIDES

By Laura Slavin and Joshua Dodson

Slavin and Dodson walk through using WordPress for subject guides at the Lincoln Memorial University Carnegie-Vincent Library.

Like most academic libraries, Carnegie-Vincent Library (CVL) built webpages from the ground up. Over the years, it became apparent that the current pages did not meet the needs of the students, faculty, staff, and community at large. The format and design of the website had become antiquated. The users of the pages were inundated with a huge amount of information with poor navigational options.

The librarians at CVL wanted the opportunity to be more involved with the website users by collaborating with students when helping them with research questions or information literacy. This involvement also allows librarians to provide subject expertise via the Web.

Our WordPress installation was successfully completed thanks to the expertise of Joshua Dodson, who was then our technical services technician. A Web committee was formed, and training sessions were held for all librarians and staff. WordPress proved to be all that we anticipated and more.

The most innovative creation was the dynamic subject guides. Dodson was able to take the custom post type functionality of WordPress and create a component that updated our ability to add and control content in our WordPress installation. Over the past two years, WordPress enhanced its capabilities, which made providing this type of functionality easier.

A Subject Guide in WordPress

It is easy to create a subject guide using WordPress. Once you set up the subject guides as a custom post type, there will be an additional area in your WordPress dashboard for you to add and edit subject guides and the related taxonomies (subjects and subject tags). You can go into the Subject Guides screen to make modifications to the subject guide posts that you create.

When you add a new subject guide, you will want to treat each one as a post that will be categorized within at least one subject. Your full subject guides will actually be displayed by subject when utilizing the full potential of this system. It is best to add a title, a description within the post body area, the website address or linked Internet resource under the Subject Guide Options screen, the subject categories and subcategories that this post will fall under, and the appropriate subject tags. The subject categories are hierarchical, so you will most likely need to select

only one of the subcategories per parent category. Be sure to plan out the structure of your hierarchy before you begin creating the subject guides. You will save yourself much time later on. Also, the subject tags are much less structured and can provide additional places to describe the content in a way that will not interfere with the designated hierarchy. The tags are a good place to add all of the extra metadata for which there is no clear place beforehand.

When you need to add or edit the subject categories, it will be very similar to the normal WordPress post categories. One thing to note is that the description added here will be displayed later on in the subject guide template. Be sure to add an informative description if you use this feature. The subject tags are also very similar to the standard WordPress post tags. You can add and modify the tags by clicking Subject Tags on the left side of the WordPress dashboard under Subject Guides. The *A–Z* subject list will display all the parent categories that have been created for the subject guides. When you click on a parent category, the second-level categories, or subcategories, will be listed, with the descriptions and the posts under them.

The subject guide index will list all the posts that have been created. This list will include all of the posts, regardless of category. When you click on an individual post, the link will take you to the page for that item, which includes a description and the full list of categories and tags that have been assigned to this item. The complete subject guide, when brought together, includes the page title, category descriptions, subcategories, and each post that has been added beneath each subcategory. You can include additional customizations as you see fit by using CSS and JavaScript and by modifying the PHP and (X)HTML.

WordPress developers are constantly enhancing and improving functionality with the release of each new upgrade; one example is custom post types. This enhancement is helpful for creating improved dynamic subject guides.

Before initiating the custom post types plugin, first create a child theme to preserve functionality and maintain compatibility with the current WordPress theme. The newest default theme at the time of this writing is Twenty Ten, which is HTML5-compatible and very flexible. We will use this as our base and create a child theme so that we can take advantage of its rich structure and syntax.

Creating child themes has never been easier. First create a folder called `sg-theme` (or name it anything else you would like) and a `style.css` file within the folder. The style sheet requires a few lines. To see an example, please refer to our online documentation.

Subject Guide A–Z Documentation
www.slideshare.net/ALATechSource/documents

WordPress will look for this file first to verify that it is actually a regular theme or a child theme. We used the `Template: twentyten` declaration. WordPress now knows that we are going to inherit the functionality of the Twenty Ten theme, but add some pieces to it ourselves. Note that it is important that both this folder and the original Twenty Ten folder reside in your `themes` folder within the `wp-content` folder.

At this point, it is not necessary to add anything else to the style sheet, but since we want to maintain the look and feel of the original theme for our example, we will add a style import declaration. A few additional files must be added to our new theme folder `sg-theme`. We will add five additional files to the `themes` folder and one file to the `plugins` folder found inside of the `wp-content` folder. A plugin must be created that will enable the custom post types and provide the core functionality.

There is also an optional function that will create a redirection to take place under specific conditions. This function ultimately supplies our designated templates if the page that the user is viewing is one of the subject guide pages. The `taxonomy-subject.php` example that we discuss below takes the place of the last statement by using the inherent template hierarchy structure of WordPress.

Now we are finished setting up how WordPress will handle all of our subject guide custom post types and the metadata and other taxonomies that are associated with it. All that is left to do is to initiate the plugin. This task requires a few additional lines of code.

The plugin will do most of the heavy lifting for us on the admin side. Now we need to specify how we are going to display the contents of our subject guide custom posts. We will handle this task through our templates. Since we are using a child theme, WordPress will look at our custom folder first and display the content that we specify for our templates. After it looks at our child theme folder, WordPress will look for the rest of the functionality in the parent theme folder. Using the built-in WordPress theme structure, we will create a file called `taxonomy-subject.php`. We will use the categorization to display the subjects so that when one clicks on the category, all of the posts classified as that subject and all of the subcategories with their respective posts will be displayed in a hierarchical fashion.

The subject guide template lists all of the subject guide posts across all categories (subjects) and displays the URL of the Internet resource next to it. When the post title link is clicked on, it will take you to the single-page listing of the post resource.

The Subject Guide A–Z List template and the Subject Guide Category template will take on very basic functionality from the standard Twenty Ten loop. We use our `functions.php` file to make some modifications to provide additional functionality. Note that

the Subject Guide A–Z List template takes on the page loop functionality, while the Subject Guide Category template uses the single post loop. To bring everything together, we will use a custom `functions.php` file.

Creating dynamic subject guides using WordPress will add a level of usability and efficiency to your library website. As we discovered at CVL, these guides also help involve librarians and users.

Using WordPress gives CVL a professional, functional presence on the Web. What is exciting about WordPress is that it is evolving and improving. No matter the size of your library or your specific needs, WordPress will almost always provide a solution for you. With the step-by-step guide we've provided, we hope you will take the time to experiment with our response to a specific need at our library and that you will then branch out and utilize the multifaceted capabilities of WordPress.

More Information

This discussion is really just the tip of the iceberg. We fully expect that WordPress will release even more customizable functionality. The WordPress Codex is the best place to look for the definitive word on how to use the WordPress functions and capabilities that we have mentioned. Many additional resources on the Web will provide tips and different approaches. WordPress is expanding into a fully functional CMS. The full community of support in WordPress is a remarkable thing. You never know when your question will be answered by another user who has experienced the same issues, or even by one of the lead developers.

All of the code and templates we discuss in this article are available for your use online at the website listed on page 35.

> *WordPress Codex*
> http://codex.wordpress.org

This information has been presented to the best of our knowledge. As with all open source code, the core WordPress functionality may change. If you choose to implement the ideas expressed herein, please research WordPress further and share your findings with the WordPress community. The authors do not guarantee exact results as expressed herein.

About the Authors

Laura Slavin is the technical services librarian at Lincoln Memorial University Carnegie-Vincent Library. She earned her master's in library and information science from the University of South Florida School of Library and Information Science and her master's

in business administration from Lincoln Memorial University.

Joshua Dodson is a Web analytics strategist for Stamats, Inc., in Cedar Rapids, Iowa.

Laura and Joshua have published and presented numerous times on WordPress and the use and customization of other open source software.

FIRST-YEAR SEMINAR BLOGS

By Jacob Hill and Peg Cook

Hill and Cook discuss using WordPress Multisite blogs at the Elmhurst College A. C. Buehler Library in a program for first-year students.

Choosing WordPress

We knew of WordPress as a Web publishing tool long before we considered it as a teaching and learning tool. The concept of a comprehensive solution for our faculty and student needs took us a while to recognize and embrace; up until a few years ago, our demand for self-hosted server applications was relatively minor. The gap was filled by Web-based applications such as Blogger and Blogspot, which seemed to work as long as class assignments didn't demand too much in the way of user flexibility or administrative control. Some instructors had requests for website design and publishing capability; to provide this capability, we offered public wikis (PBwiki and Wikispaces) and student server space for those who were familiar with some form for of web authorship coding or software (writing HTML code; using Word, FrontPage, or Dreamweaver), for which we offered limited instruction. We had some advanced content management tools already at our fingertips (Blackboard and Moodle), but the main impediment was the basic unsuitability of these tools for assignment needs. Professors generally wanted a content publishing tool with a powerful but simple editor capability on the student side, combined with some selective visibility or sharing mechanism and the ability to leave comments.

At the time (circa 2006–2007), many librarians didn't see the potential relationship between blogging and website design (or at the very least, they did not think these mechanisms could be served by one product). We had heard of subscription-based tools that could do both, but funds weren't going to be allocated until we had significant demand. In addition, the blogging-versus-website camps had pitched their tents and started to lobby for their favorite platform. Blogging was popular and easy and had buzz as a "hot"

publishing medium. It also had the advantage (or weakness, depending on what you wanted) of chronological content arrangement. Website content design was seen as more difficult, static, and (perhaps) harder to support; wikis, with their WYSIWYG editors, were seen as "good enough" and filled the role when needed.

Librarians tended to support this potpourri of blog and wiki tools based on personal preferences and experience; it was the "If you have a hammer, everything looks like a nail" approach. Once you acquired skill in Blogger or PBwiki, you tended to offer that as the solution for faculty needs. It was not an ideal situation, but it did make sense in terms of time commitment and technical knowledge.

The idea of using a self-hosted instance of Word-Press was brought to our attention by a new hire for our library technology specialist position. He had been using a personal installation for some time. A self-hosted tool was attractive to us since it would help us retain control of the administrative side of the product. In addition, our employee was able to demonstrate some of the advantages of WordPress for both users and viewers. In particular, the following things caught our eye:

- It would be under our administrative control.
- It would be integrated with our LDAP authentication.
- It offered easy user and account creation.
- It offered a powerful yet easy WYSIWYG or HTML editor.
- The learning curve was moderate.
- It offered selective visibility (public versus private).
- It was robust and tested.
- And perhaps most essential, it had the ability to offer both static pages (i.e., a website) and blog posts; this ability accomplished multiple aims at one time.

Implementing WordPress for First-Year Seminar Students

A key component of the integration of WordPress blogs and webpages into our library practice is Elmhurst College's First-Year Seminar (FYS) program. First piloted in the fall of 2008, our FYS is structured around several common elements. The decision was made early in the process of designing the FYS curriculum to integrate technology skills and information ethics, and an assignment set was created that utilized a blogging platform, allowing students to report on their FYS activities and complete writing assignments that had a potentially wider audience than just their classroom instructor.

We chose Blogger as the platform for the initial pilot trial of the FYS assignment, partly for technical reasons and partly because of familiarity with it on the part of the FYS librarian. However, that first year

highlighted some issues with Blogger. Students had to create Google accounts, which gave them another set of usernames and passwords to forget. Additionally, some students already had Google accounts, which complicated the process, and administration of the "cloud" program was impossible on a local front.

The second year of the pilot, we made the decision to switch to a local installation of WordPress Multi-User (MU), now called WordPress Multisite. The number of students involved in the FYS pilot had doubled, and we needed a more locally manageable tool with features that Blogger didn't offer. WordPress gave us the ability to create blogs and webpages quickly, add users in various capacities to blogs, and quickly and easily troubleshoot issues student and faculty were having.

WordPress also gave us the opportunity to allow faculty to use the platform as a content management and communication tool within the context of their course. Some faculty took more advantage of this ability than others, using the blog to post assignments, links to relevant sources of information or readings, schedules, and so on. All sections used the blogging feature as a way to store links for all students' blogs in one place.

Reflection and Future Considerations

We have been using the self-hosted WordPress installation for two years. Surprisingly, not many students have been familiar with it, even though it's been publicly available for some time either as a self-hosted instance or from WordPress.com. Even more revealing was the very small number of students who had ever blogged or created websites. We had a perception of millennials as a group who were competent and prolific users of Web 2.0 tools. Our experience has demonstrated that this is no more true for this age group than for any other—some people are technophiles and very comfortable using different products, some people are familiar and comfortable with one or two tools (e.g., Facebook and e-mail), and some people (even millennials) are technophobes and do not have a high comfort level with technology.

Additionally, the use of WordPress in the FYS class has changed over time as the courses and assignments evolved. The initial use of the blogs was a mandatory part of the information ethics unit, but the mandatory blog use was not feasible for many of the FYS course instructors, so we made it optional as of this year. A third of the course instructors this fall seem to be using the blog to one degree or another, but we also have had increased use of the platform as website-creation tool.

Our satisfaction and confidence in WordPress are evident in our decision, in the summer of 2007, to use it for creating and hosting the primary library website. The site is primarily administered and updated by libraries, and WordPress allows us to keep this task in house without resorting to more complex web

editing software and direct FTP site uploads. We have been very happy with the ways in which WordPress allows us to easily post webpage content; perhaps ironically, the librarians rarely use the blogging feature but instead use its web design features, which are simple yet powerful. Although we may choose to migrate to some other platform in the future, we see little lacking in WordPress and plan on using it for the foreseeable future.

About the Authors

Jacob Hill has served as a reference and instruction librarian for the A. C. Buehler Library at Elmhurst College in Illinois since 2003. He has recently presented and published content on plagiarism-detection software, mobile resource access, and reference desk communication applications. He is currently investigating college and secondary education liaison program partnerships.

Peg Cook is a reference and instruction librarian at Elmhurst College. She works closely with first-year students and is interested in the relationship between technology and information literacy. Peg has an MA in performance studies from Northwestern University, as well as an MSLIS from Dominican University.

BUDDYPRESS AND HIGHER EDUCATION

An Interview with Dr. Michael Stephens and Kenley Neufeld, by Kyle Jones

Stephens and Neufeld are instructors who each use BuddyPress as a learning management system.

Online learning has become ubiquitous across most educational organizations in the United States. To support this learning environment, institutions have typically chosen to implement one or two learning management systems on campus. These large software implementations bring standardization, support, and integration into existing campus systems. But these standard systems don't always meet the needs of students and faculty. Both Michael Stephens and Kenley Neufeld have been experimenting with alternative tools. In this discussion, we explore how these two professors have implemented a WordPress/BuddyPress learning system for their students.

Kyle: Do you find that creating a virtual learning community is much more feasible now, with today's technical tools like WordPress, than it was several years ago?

Kenley: We've reached a point of critical mass. The tools and software available are pretty ubiquitous. If you think about WordPress, anybody can get a WordPress site up and running even if they are not fully aware that's what they are doing. It's moved outside just the fringe and more into the mainstream. This makes it easier for people to step into it. If I use the word *WordPress* in public, some might actually know what that is, or if I just mention *blog* then they most likely will understand. Whereas a decade ago if I had said *a MOO,* I'd have to spend ten minutes explaining it and even then they might not get it. Part of this has to do with the change in the Internet landscape. A decade ago it wasn't small, but the Internet has become pretty much present in everybody's lives today. Everyone seems to be engaged with it on some level. That alone is going to shift the tool mechanisms to facilitate learning environments. Blackboard was really the only player on the market a decade ago.

Michael: I'm reminded of the years I spent doing tech training at the public library and then taking over the training and development department. Between 1996 and 2003, we really struggled to design an intranet which now all you need is a blog behind a firewall and you suddenly have an intranet. It amazes me how easy this stuff is now. Because the technology got easier and more popular, everyday folks now understand "We're running this on WordPress or Drupal or Blogger." That's been one of the most exciting things about this. And this is why we should be doing these things in library school and in the university—these are the tools of the moment. In three or four years we might be talking about something else. But the ideas and motivations remain the same.

Kyle: You both work at institutions where you have some kind of formal learning management system. Why did you make the decision to not use the resources you had? You could have made your lives extremely easier going with the norm, and instead you chose to roll your own. You put a lot of struggles on yourself to do so.

Michael: I can't have my students spend so much time creating and writing inside a tool that they'll probably never touch once they graduate, unless maybe they work in academic libraries. They should be using a tool or a handful of tools they will be using in their jobs. I want them to come out of the program and say they have used WordPress and took advanced web design and experienced Drupal and used Twitter. That's much more important than these systems. The feeling that I'm serving the students better by using these systems is good.

Kenley: For me, it's been more about trying to build tools that will meet the needs of the types of things I want incorporated. The system we had originally, WebCT, I used for only one semester and was very disappointed. As a result, I started using Moodle the following term, and then the college went to Moodle as well (thankfully). I do use Moodle, and it works well for the most part, but I found it a little bit clunky here and there for some things I'm trying to accomplish.

The main reason I'm using WordPress/BuddyPress is because the class I'm teaching has to do with social media. Since the class focus is social media and social networking, it seemed like the obvious solution would be to actually use the tools that I'm teaching about. It was a nondecision. This is what we're going to use and I've been very happy. Now, as I look ahead, and if I were to teach other classes without the heavy social media focus, then I would still be inclined toward using the WordPress/BuddyPress solution. I am comfortable with it and happy with it. But I also need to think about the overall student experience and recognize that the school does support one system, which is Moodle, and rather than have students learn a new system, it may be smarter to stick with Moodle. It would really depend on the class. In the current situation, WordPress is the obvious solution.

Fortunately, learning management systems are trying to incorporate more of the social media tools where you can easily incorporate the video and the audio—the interactivity and visual representations that people seek. I haven't looked at Blackboard in a couple years, so I'm not that familiar with it, but with Moodle you can incorporate just about anything. There are methods to do it, but you are still building within a framework, though it is customizable. It will depend on the support you have locally because most instructors are not going to go the extra step unless they have an easy mechanism in order to do so. On our campus we are working in that direction—to support instructors to add other types of media content, interactively, to allow for a richer learning environment. It is possible.

Michael: I taught twenty-five students this summer using WordPress/BuddyPress doing Internet fundamentals. What Kenley said about media is incredibly important, and this summer I would be out on the hiking trail with the dog and my iPhone. I'd be thinking about what I'd like to tell the students, so I recorded a video that isn't just a talking head. They see a tree going by, or the lake, or the dog, and they hear my voice saying they are doing really great and here are some things to think about while doing this next exercise. And the feedback I got from the students for a three-minute video was that they loved it. It helped them feel connected and it helped me feel more connected with them. It became part of what we were doing.

Kenley: Goes back to philosophy. The human touch.

Kyle: What about the WordPress/BuddyPress combination promotes the human touch?

Michael: I request that everyone uses some type of profile photo—it doesn't have to be their face, but I want to see something. The red car. The teapot. That helps me associate that image with that person, their writing, and their interaction on the site. It's amazing how far associating a little photo with someone's writing goes beyond what could be so text-based in an online class. The Twitter-like feature, what used to be called The Wire—it's very fluid and pleasant.

Kenley: Definitely agree that the avatar piece builds connections between students and between instructor and the students. We can identify easily with who this person is in the class. My class is 100 percent online, so this is the only mechanism I have to know students. The other element that is important is that students are working with their own blog within WordPress and can therefore create something that is uniquely themselves. They can create multiple blogs. They could create one just for the coursework or add a second one for a hobby they are working on to utilize the environment and to play. That is the type of advantage we have with this type of software.

I do like the new shift away from the BuddyPress Wire to the Status Update model—it makes more sense. The whole aspect of the profile page in BuddyPress is something that I find very useful. When I set up the system, I have the default landing page for each person as their own profile page. They see themselves and their own activity. They see the friends they have made in the class. It builds on that concept of a community versus coming to a homepage—there are elements of that on the homepage, but it is more structured toward the class material rather than some of the community aspects. It's not as significant on the homepage.

Kyle: What about WordPress/BuddyPress doesn't work for your classroom or for your students?

Kenley: There is the initial need to understand the framework. That will occur in just about any online learning environment. When you walk into a physical classroom, you know what to do. It's something that we're used to and we've done it for twenty to twenty-five years before we get to college. We still have this problem in the online environment where there is a period in which you're trying to familiarize yourself and get acclimatized to the online environment. That is probably the biggest challenge for students—the technological aspect of where things are and what the expectations are.

The second challenge for my students is being able to take on the same level of transparency that I'm demonstrating; to get them to let go of some of their privacy. I don't require my students to make their blogs public, though it is strongly encouraged. (Side note: There is a technical limitation in WordPress/BuddyPress: When students mark their blogs as private, then they don't show up in the regular blog feed for other students. I do have a couple students who have blogs marked private because they don't want Google crawling their site. Obviously, this limits the interaction their sites will have from their classmates, but I can still go and look at the blog and interact.) That is a big limitation—working with privacy/transparency aspects. In regard to the avatars, it doesn't matter to me if it's not a picture of the person, but it is important that it's something. That image represents the student in the class.

Michael: I agree with both of Kenley's identified challenges. There are some nitty-gritty things too. I think it goes back to understanding the site. When the blog posts roll off the front page, then how do we find them?

One thing that really impressed me was last year there was an update midsemester, and Kyle and I were going back and forth on whether we should update. Should we wait? We decided to put it out to the students. Do you think we should do it? I gave them a little push and they voted. It was a landslide vote to do the site update and see what happens. It went very well. Kyle and I were pretty nervous.

Kyle: I was extremely worried about that, but I'm not in charge of your class. In terms of upgrading to a major version of anything new, there is always that risk that bugs are uncovered. That could really blow up whatever you are working on. I think your students would have recognized this, but it would have been a learning experience too. If they are in their library and they are updating a piece of software, then what are the problems that could occur? Who is it going to affect? What trouble could I possibly be in? We are in a bug culture—we use mainstream tools like Facebook and Twitter. Just this week Facebook went down for several hours and Twitter had a JavaScript issue. It's a buggy culture, and we have to learn to get through it and find the resolution to make it better next time.

Kenley: I couldn't have done that with my class. Every time I go to the dashboard and I see the plugin updates, I don't even want to know about that stuff. It always makes me nervous.

Kyle: That's one of the levels that students don't really see—what's going on in terms of plugins and what could happen to their class. They shouldn't have to worry about that—that's a system admin thing. But in Michael's situation, here you have him presenting them with potential opportunities and improvements to their possible learning experience.

Kenley: We don't do bugs on our campus. It has to be planned and vetted. Even then we might spend six months or more discussing it. There's a shell-shocked nature on our campus because of some bad experiences in the past. A significant hesitance is present where something might potentially be negative (or improve) the learning environment.

Kyle: Have either of you talked to your peers about using WordPress/BuddyPress more extensively throughout different classes?

Michael: I have done a couple presentations as part of our Center for Teaching and Learning Excellence. I also have a couple colleagues who have adapted similar systems.

Kenley: I've spoken with some colleagues and spoken with our faculty support department. There are faculty using WordPress in other classroom environments. However, they are not using the BuddyPress combination. That would be a different step, requiring additional support and training. There is some interest across campus. Even though I'm just one person, we are a small campus and I communicate things that I read or experience with the dean responsible for online technologies by keeping him apprised of what I'm doing and maybe that is something people would be interested in trying out.

Kyle: Since you've talked to your peers, maybe the word has gotten out to your systems department. Have they reached out to you to say we'd like to help you in this venture?

Kenley: No. It's actually the opposite. They say to me, "There is somebody interested in using WordPress. Can you help them?" I'm one of the people they send interested parties to. If I came to the campus support and said I'd like to host WordPress/BuddyPress on site, they probably would consider it, but it is just simpler to keep it off site. The other faculty using WordPress do use an on-campus installation run through our Faculty Resource Center. On the IT side of the house, as opposed to faculty resource support, they probably don't have the mechanisms or the staff to implement this on a broader scale.

Kyle: What about you, Michael?

Michael: Very similar. There are pockets of people all over campus using WordPress to varying degrees. Some

people are experimenting with Moodle. We're all sort of finding our way. The next step is it might become more strategic—more planned. We'll get more support as we go forward. I host off site because it is easier.

Kenley: Currently, I am running on a virtual private server ($50 a month) because of problems with memory resource usage of BuddyPress. The hosting provider moved me to a VPS because of high memory use. As a result, I've had to reboot the server several times to resolve memory spikes.

Kyle: This is a limitation that has been discussed in the BuddyPress forums. It is very frustrating because we expect a WordPress plugin to just work and not affect your resources in that way. That is the general experience with WordPress. There is a lot of complexity built into BuddyPress because of the new features it is offering and the queries it is pulling from the database.

Kenley: In the last day or two, the memory usage has been around 200 to 300 megabytes of memory use. But it spikes up to over 800 megabytes a few times a day. In a shared hosting environment this will not work.

Kyle: This could be improved in the future, but the complexity might increase at the same time. What are you planning to do differently with your course sites in the future? What is on your wish list of features? Are you going to migrate away from WordPress? Any specific things you'd like to include?

Kenley: I would like to include a solid grade-book tool. I haven't done the research to find one, so I currently post my grades in Moodle since all classes have a shell on our campus. The second thing would be some type of LDAP authentication to bounce against our campus system. Again, I haven't spent the time to research this option, and it would require some institutional support and signoff. I know both are possible.

Michael: I see continuing to use WordPress for a while; it is working very well. I would like to see better integration with some of the other social tools. Everyone got on Twitter in the emerging technologies class, so I wish there was a way to mash that up a little bit better.

Kenley: In my grading process, I like to look at each student blog. I was originally using the WordPress dashboard to navigate through all the blogs, but have since discovered the front-end activity feed meets this need well. From a teacher perspective, the mechanism for working my way through the content for grading purposes, knowing who is being engaged, etc., is very important. The first semester I used WordPress/

BuddyPress, it seemed very time-consuming. It's much better now.

Michael: I really like the activity feed. I subscribe to all of the feeds from all of the sites. I had a class with twenty-five people, twenty-five blogs, ten blog posts a semester, and that's 250 blog posts. That's a lot. I don't expect the students to read everyone's posts, but I do read everything. Finding ways where smaller groups might participate with each other instead of twenty-five people trying to find a blog post to comment on.

Kyle: Thank you both for your insights and for sharing your innovative spirit with the readers of this technology guide. Furthermore, thank you for rethinking the online learning experience—I imagine your students are appreciative for your hard work and development on your course sites.

About the Interviewees

Michael Stephens is an assistant professor in the Graduate School of Library and Information Science at Dominican University in Illinois. He utilizes WordPress and BuddyPress to create interactive, social learning sites for his classes. He writes the monthly column "Office Hours" in *Library Journal,* exploring issues, ideas, and emerging trends in library and information science education, and he blogs at tametheweb.com. He speaks and researches internationally on topics surrounding emerging technologies, learning, and libraries.

Kenley Neufeld is currently the library director at Santa Barbara City College. He has been using the Internet to teach and train people since early 1993, when the first graphical web browser was created.

FROM LIBGUIDES TO WORDPRESS

By Paul Boger

Boger explains the history, inspiration, success, and failures of using WordPress to create subject guides at the Stafford Campus Library of the University of Mary Washington (UMW) in Fredericksburg, Virginia.

UMW Libraries: Simpson and Stafford

Founded in 1908, the University of Mary Washington (UMW) has slowly grown into a two-campus institution. The original campus is located in Fredericksburg, Virginia, and the second campus, opened in 1999, is located in nearby Stafford County, Virginia. The

students of UMW, regardless of the campus at which they attend classes, have access to library services at both campus locations. The Simpson Library serves the faculty, staff, and students at the main campus in Fredericksburg, and the Stafford Campus Library serves the faculty, staff, and students at the university's Stafford location. The Stafford Campus Library, while having a small degree of autonomy, operates as a branch of the Simpson Library. While there are many similarities in resources, collections, and policies, one major difference between these two libraries is the students at each campus.

While the Simpson Library in Fredericksburg serves mainly traditional students, the Stafford Campus Library serves roughly 1,000 nontraditional students who take evening classes at the university's secondary location. The nontraditional students attending the Stafford Campus are very diverse. They tend to be older, they have careers, and many have families. Additionally, the students of the Stafford Campus are all commuters who live anywhere between Washington, D.C., and Richmond, Virginia. They visit the Stafford Campus only once or twice a week in order to attend class or to work on their course assignments. While some students drive to the Stafford Campus Library to seek the assistance of the library staff, a vast majority of the Stafford students interact with the library using only the Internet or telephone.

Motivation

The subject guide or pathfinder has been used as a starting point for student research at many colleges and universities. This holds true at the UMW Libraries, where subject liaisons create and maintain online subject guides for the major courses of study offered at the university. These Web-based pathfinders usually consist of a subject librarian's contact information and an alphabetized collection of important print and electronic resources for a specific subject area. While this design is both practical and functional, it is also very outdated. This alphabetized list of resources is the same type of subject guide I first encountered while pursuing my library science degree in 2000. Since that time, the Internet has changed and new technologies have appeared, but the format of the (UMW) library subject guide has remained unchanged.[1]

In the spring of 2008, I became very interested in modernizing our subject guides. My motivation really grew out of my interactions with the students at the Stafford Campus. Many students expressed frustration at using the UMW Libraries website because it was too difficult to find the information they needed. The expectation was that the libraries' website and online resources would function like the commercial search engines and popular websites that students use in their daily lives.[2] What they encountered was a cumbersome library website heavy with text, links, and library jargon such as *databases, interlibrary loan,* and *catalogs.* This inability to navigate the libraries website was creating the perception that the library was a frustrating and time-consuming research maze that failed to produce results. The usual response was to then look outside of the library to locate needed information. Despite my warnings about the questionable quality of some Google or Wikipedia search results, students knew that "Our information competitors can serve up quick bites of information the way users want—fast and easy."[3]

To me, there was an obvious problem, and as the library liaison to the Stafford Campus community, I wanted to address it. Stafford Campus students said, "The library doesn't have what I need." I would respond to these statements by working with these students to prove that the library did, in fact, have what they need. While I was successful in leading some students back to the libraries' resources, I wondered how many students the library was losing. How many students failed to discover the databases or subject guides due to "poor promotion and visibility"?[4]

I was convinced that UMW Libraries needed to "simplify the intimidating appearance of the library's homepage"[5] so that students could quickly and easily locate the tools and information needed to complete their research. After all, I felt I could spend more time focusing on information literacy if I could spend less time discussing how to manage the libraries' website. Unfortunately, redesigning a library website is no small task, and it requires the energy of more than one librarian. Since a major redesign was impossible, a minor redesign, focusing on the UMW Libraries' outdated subject guides, seemed like the obvious choice by which to make a substantial change for improving the library experience of our students and faculty.

The other motivating factor for redesigning our subject guides was that the Stafford Campus Library had already engaged in multiple pilot projects using popular Web 2.0 technologies like Twitter, Meebo, Shelfari, and Camtasia. These solo projects had varying degrees of success. I felt that one of the biggest obstacles to the success of these projects was the fact that they were scattered across multiple library webpages. As the branch library at UMW, the Stafford Campus Library did not have access to any prime Web real estate, and without acceptance for these Web 2.0 experiments at an organizational level, these projects were forced to live two or three layers below the UMW Libraries' homepage.

Inspiration: From LibGuides to WordPress

While I searched for subject guide inspiration, Jami Bryan, the former Stafford Campus Library manager, suggested that I visit the LibGuides display at the

Computers in Libraries conference (2008) in Crystal City, Virginia. Upon her recommendation, I visited the Springshare booth, and I was very impressed with what I saw. Springshare's popular LibGuides service allowed librarians to easily redesign their subject guides by choosing from a selection of customizable templates. Tabbed pages allowed librarians to organize and present information in a fashion that allowed for easier discovery by library visitors, and a wonderful tagging feature provided students another means by which to locate and identify resources. LibGuides was also very creative, with the ability to incorporate media and multiple Web 2.0 resources like Twitter, Delicious, and Facebook. LibGuides also provided a simple way to embed videos, RSS feeds, and widgets directly into a guide so that they could be easily discovered by the individuals visiting that guide. Last but not least, I thought LibGuides were visually appealing. They were a true move from Library 1.0 to Library 2.0. It was exactly what I wanted for UMW Libraries.

LibGuides
http://springshare.com/libguides

In the fall of 2008, Jami and I met with the university librarian to present our case for joining the LibGuides community. By that time, the national economic situation was making an impact on library budgets across the county. Faced with the possibility of budget cuts, UMW Libraries simply could not afford to join LibGuides at that time.

Although disappointed by our inability to participate in LibGuides, Jami and I were determined to make some substantial changes to our subject guides. At that time, Jami said, "If we can't buy LibGuides, we should just make our own subject guides using WordPress." I was intrigued by the possibility of moving forward with Jami's WordPress idea, but changes in library staff, a failed attempt at collaboration, and conflicts with our normal responsibilities forced us to delay implementation. As this proposed idea began to fade into obscurity, I decided to revive this experiment as a personal project during the summer (2009).

Learning WordPress via UMW Blogs

The decision to use WordPress was based largely upon the fact that it is already in heavy use at the university through the UMW Blogs program. UMW Blogs, released in 2007, has quickly become the preferred publishing platform for students, faculty, and organizations across the university. In three short years, the use of WordPress via UMW Blogs has rapidly grown to over 5,700 users and 4,100 blogs. In addition to being a popular and convenient Web publishing option,

WordPress is also an open source tool. It cost the library nothing to participate. I simply had to create an account in UMW Blogs and get to work. Once my account was created, the real learning began.

UMW Blogs
http://umwblogs.org

The first and most obvious challenge was to teach myself how to use WordPress. I had never created a blog before, and I began to seriously regret my decision to undertake such a project when I first saw the WordPress dashboard. Posts, pages, plugins, widgets, and gravatars were all relatively foreign to me. I had read articles about using these items to create blogs, but I had never tried to do it myself. I spent hours playing with the WordPress settings and features. Every time I adjusted a setting or added a plugin, I would view the test blog to see what the effect was. After a short period of experimentation, the language, structure, and functions of WordPress began to make sense.

My greatest concern about WordPress was that it would not offer the ability to incorporate multiple Web 2.0 resources. I quickly discovered that my assumptions about WordPress were very wrong. There were so many widgets and Web 2.0 tools at my disposal that it was difficult to decide what to include on these new guides. Besides having an abundance of tools, plugins, and widgets created by the WordPress community specifically for WordPress users, many popular sites such as Twitter, Meebo, and YouTube allow you to generate your own HTML code, which you can embed directly into a WordPress blog. Additionally, some of the major database vendors like Ebsco and Wilson allow you to create customized federated-search widgets. With a few clicks, I was able to create a search box that would cross-search multiple databases, and I could embed this search box directly into the sidebar of our experimental blog.

Needless to say, it was difficult to decide which tools would be valuable to students once they accessed the library subject guides. Jami and I had different opinions as to what should be included. The Stafford Campus Library was already using Meebo, Shelfari, Twitter, and video tutorials. These new blogs seemed to be a natural spot to showcase these tools all in one location. I also felt our students could benefit from some creative uses of RSS feeds, so I experimented with some free RSS aggregators. WordPress does have a variety of ways to generate RSS feeds. Personally, I found these RSS options functional but very unappealing visually. I then decided to use some of the free RSS aggregators available from Widgetbox. These too were frustrating. One RSS widget would not update properly, and the other was discontinued by its creators. My fallback

solution was to create an RSS feed using Twitter. The Lists feature in Twitter allows you to create a list of your favorite publication's tweets. Twitter will then provide you with the HTML code for your widget, and then it can be embedded directly into WordPress. The Twitter widget was easy to create and customize, and based on my experience with other RSS aggregators, the Twitter list was technologically stable. SlideShare, the online presentation-sharing website, provided a widget that allowed for a creative way to distribute the presentations that I use in my library instruction classes. I also felt commuter students might be interested in the WorldCat widgets that allowed users to search for books at UMW Libraries or other local libraries. We were also interested in using the widgets for Delicious and Zotero as a means of sharing popular websites that were being used in specific courses. All of these widgets were very intriguing and had great potential, but "adopting every Web 2.0 tool is not the solution."[6] The wonderful flexibility of WordPress allows you to offer all sorts of information, but we had to be careful to avoid information overload. Cluttering the new subject blog with too many Web 2.0 accessories would defeat the purpose of offering a more simplified and user-friendly subject guide.

In addition to the many widgets that could be employed in a WordPress blog, WordPress also provides access to a variety of plugins that can be used to improve the functionality a blog. Many plugins could be installed and activated with a simple click. More advanced plugins required you to add a bit of code to the CSS of the page. Although adding this extra coding sounded intimidating, it proved rather easy because instructions were readily available in the WordPress Plugin Directory. Of the hundreds of free plugins that were available through the plugin directory, I used only a dozen. Some of the more useful plugins for creating a library subject guide were the Broken Link Checker, a Creative Commons License plugin, and a poll-generating feature, but by far the two most useful and vital tools that I had access to through UMW Blogs were the Akismet spam filter and Google Analytics. Akismet was already active for any blog that was created through the UMW Blogs network, and Google Analytics could be activated in a few simple steps.

WordPress Plugin Directory
http://wordpress.org/extend/plugins

Design and Appearance

The ultimate appearance of our blog was determined by the templates that were available through UMW Blogs. While a variety of templates were included, I was frustrated with the blog templates that were available to me. The inability to customize many of the templates created problems with the dimensions of the sidebars, the blog colors, and the size and style of the typeface. I also discovered visual inconsistencies when the blogs were viewed in different Web browsers. These display problems were difficult to overcome. When I tried to embed a new widget, I would often discover that the widget could not fit into the dimensions of the blog's sidebars. I was left with a sloppy display of widgets that spilled into the main column of the blog. I could alter the dimensions of some of the widgets in the HTML code, but I had to abandon entirely the use of the more difficult widgets.

Since this redesign was planned only for the Stafford Campus Library, we had to keep some level of design consistency with all the other subject guides being used at the Fredericksburg Campus. This forced us to create a blog header that matched what was currently being used on the UMW Libraries' website. This task was accomplished by Jami, who created a blog header that seamlessly matched the header on the UMW Libraries' homepage. With a little extra effort, the header was then inserted on the new subject blog so that the appearance was still very similar to the subject guides being used at the Simpson Library.

Participation and Buy-In

Jami and I demonstrated our prototype at one of our library departmental meetings. While our colleagues were very complimentary of our work, we failed to generate any additional interest in participating in this subject blog experiment. Our inability to gain additional library support was a disappointment, but it was not entirely unexpected. After all, "asking librarians to essentially redo all existing guides is asking for a serious commitment of time and energy."[7] This task would require the entire reference staff to learn WordPress, develop a standard template for multiple subject areas, decide on what common features to adopt, and then repopulate these subject guides with much of the same content that already existed on the subject guides currently being used throughout UMW Libraries. Jami and I needed to prove this project had long-term substantial value for our users before it would be embraced throughout our library organization.

Nevertheless, Jami and I still continued to move the project forward. At UMW, the unique differences between the Stafford Campus Library and the Simpson Library contributed to our ability to move ahead without the involvement of the staff at the Simpson Library. Because of a different geographical address and a different student body, the Stafford Campus Library has been able to experiment with new technologies that are quite often used only by students enrolled at the Stafford Campus. This unique position has allowed the Stafford Campus Library to function as a technology playground where we could freely experiment without

having to gain librarywide acceptance. Any impact created by additional workload or technology training was felt only by the staff at the Stafford Campus location.

Marketing

As the manager of the Stafford Campus Library, Jami wanted to have our subject blogs available by the start of the fall semester (2009). I wanted to wait until January 2010 so that I could continue experimenting. Honestly, if Jami had not overruled my perfectionist tendencies, these blogs might still be in the development phase. So I agreed, and we targeted the fall semester (2009) as our release date.

With the fall semester rapidly approaching, the Stafford Library staff had to market our new guides quickly and directly. Jami publicized the blogs in a library announcements e-mail to the Stafford Campus faculty. We posted announcements on Facebook, Twitter, and the Stafford Campus Library's portion of the UMW Libraries' website. If a faculty member approached the reference desk with a question, we quickly segued the conversation into a discussion about the guides we developed. Finally, our last marketing attack before the fall semester began was to offer an open session for the Stafford Campus faculty in which we could demonstrate the new subject guides that would be available to the Stafford Campus community.

Maintenance

Maintenance of these new blogs was a serious time commitment. Content had to be created, tags had to be assigned, and links had to be maintained. At times, I would discover that a free widget would be discontinued by its creator or a plugin would be removed by the administrator of UMW Blogs because of technical conflicts with the WordPress system. These blogs required some extra vigilance to ensure that everything was functional and current.

The positive side to the maintenance of a WordPress blog was the WordPress community. If I had any sort of technical question about our blogs, I could easily search the WordPress Forums for assistance. The WordPress community does an excellent job of sharing information and providing assistance to other WordPress users. If I couldn't find a pre-existing answer in these help forums, I could post my own questions to the forum and receive a fast, detailed, and helpful answer to my blog problems. It was very impressive. I also benefitted from the assistance provided by the campus administrator of UMW Blogs, Jim Groom. Jim Groom is the WordPress guru at UMW. If I was struggling with a blog technical issue, I could simply contact Jim and my solution was forthcoming.

WordPress Forums
http://wordpress.org/support

Conclusion

I started this redesign with no experience in WordPress. In a couple of weeks, I taught myself to create multiple blogs, install plugins, embed widgets, and create and tag content with very little effort. The result was an inexpensive and creative way to move the Stafford Campus Library's subject guides into the Web 2.0 world.

WordPress has the potential to create rich, interactive subject guides that are just as impressive and multifunctional as LibGuides, but the weakness of WordPress lies in the people using WordPress. While WordPress did a great job providing me with the all the tools necessary for creating and publishing a blog, my lack of advanced web coding skills prevented me from utilizing WordPress to its fullest potential. In skilled hands, WordPress can be developed into an impressive website, as demonstrated by the new WordPress-inspired homepage of UMW. Given the opportunity to collaborate with the creators of the new university website, I would have access to the technical expertise necessary to develop these subject blogs into the polished and professional resource that I originally imagined.

UMW homepage
http://www.umw.edu

Was it our intention to replicate LibGuides? Not at all. I consider LibGuides to be the gold standard for developing content-rich, interactive library subject guides. If the UMW Libraries' budget was not an issue in 2008, we probably would have joined the LibGuides community, and Jami and I would never have embarked on this project. All of our work with these subject blogs was born out of the desire to simplify and improve the library experience of our students. For us, WordPress was the obvious choice to accomplish this goal. Not only was WordPress free, but it also allowed us to incorporate many of the same tools and features that make LibGuides so fantastic.

How does WordPress compare to LibGuides as a means of creating innovative subject guides? Although I can judge WordPress and LibGuides only according to my limited experiences with this one project, my opinion is that the options are comparable, but they have their obvious differences. Overall, I found WordPress to be brilliant in its simplicity and versatility. In very little time, any novice can create and publish a WordPress blog that provides access to many of the same features that are available in LibGuides. By far the most difficult and time-consuming task of using

WordPress for this project was learning the technology and then designing the appearance of the new subject guide according to the templates to which I had access. I really enjoyed the creative flexibility of WordPress, but visually, I failed to create a blog that is as seamless and professional as LibGuides. My blog presentation is very patchwork due to the limitations of my selected template and the use of widgets generated from multiple Web sources. The Stafford Campus blogs could truly benefit from a template that looks more like a website and not like a blog. There are more sophisticated WordPress templates available, but I have not had the opportunity to explore them for the purposes of UMW Libraries. Another drawback to my approach for creating these subject guides was my dependence upon free widgets and plugins. I can speak from experience that the company or individuals who offer these free tools may start charging a fee for these resources.[8] I am not surprised by this financial fact, but when you are developing a Web resource with no financial support, you are at the mercy of tools you can afford.

While UMW Libraries followed the open source solution for creating subject guides, some libraries might find the commercial solution offered by LibGuides to be a better fit for their organizations. As a tool for creating subject guides, LibGuides might be easier to learn than WordPress. Whereas I was encumbered with learning a new technology, searching for a customizable template, and designing the appearance of my new guides, LibGuides simplified the technology learning curve by providing its customers with access to templates and Web 2.0 tools that have been formatted and tested to function smoothly within the LibGuides system. Additionally, the problems I experienced with using widgets from multiple Web sources is not a problem for LibGuides because their widgets and content boxes have been standardized to operate neatly within the LibGuides program as well.

Technical support is another critical issue. The WordPress Forums proved an excellent resource for assistance, and the WordPress community is very helpful in providing free advice to other WordPress users. The end users must then apply these solutions to their own blog dilemmas. Not to be outdone, LibGuides also offers a community help feature via the Springshare Lounge. The biggest difference with technical support is that the commercial LibGuides product provides customer service support to its clients. If you have any issue with the LibGuides product, you can simply contact Springshare's customer support line, and they will find a solution for you. By allowing the customer to outsource much of the technical support, the functionality of features, design considerations, and technology training, a service like LibGuides absorbs much of the labor-intensive portion of creating new subject guides.

The sustainability of creating and maintaining new subject guides is an issue that I completely overlooked in my excitement to create these new resources. In addition to any sustainability issues posed by technology, there are also sustainability "risks associated with the human element."[9] The long-term success of these blogs is impossible without a library team dedicated to their development and support. Currently, I am the only librarian supporting this project. If I should leave UMW, these blogs would most likely be discontinued. In this regard, I most certainly favor LibGuides over WordPress, but again, this is not the failure of WordPress. This is a failure to gain participation and support from within UMW Libraries. By using a commercial product like LibGuides, you are guaranteed to have access to new features and improved functionality as long as you subscribe to the service. Plus, if your library is financially invested in such a service, there may be greater motivation to see your investment succeed.

Has this project been successful? I think so. Although a staffing shortage has prevented us from performing a much-needed assessment of these guides, Google Analytics does prove that our blogs receive a lot of Web traffic, and informal feedback from the Stafford Campus community has been very positive. Still, I am skeptical about judging the success of a project like this one based on the number of Web hits or on the opinions of a small group of individuals who kindly share their feedback with the library. Project success should be determined by the value it adds to the library user's experience. When the use of Meebo was initiated at the Stafford Campus Library, someone asked if our students requested that the library begin using Meebo as a tool for communication. The answer is no. Our students did not request Meebo. Students did not ask the Stafford Library to improve its subject guides, create video tutorials, or use any Web 2.0 tools. All of our technology projects have been inspired by the library staff's desire to simplify and improve the library experience by adapting to potentially useful trends happening outside of the library. The library must be responsive to these trends because "library users are not going to change the system—instead they will look for other means of getting needed information."[10] Springshare recognized the need to improve library subject guides, and it responded by creating the very successful LibGuides. UMW Libraries responded to a similar need by using WordPress to create our own version of Subject Guide 2.0. While LibGuides is definitely the leader in creating dynamic, multifunctional subject guides, our open source approach demonstrates not only the potential of WordPress in libraries but also the creativity of librarians driven by the professional desire to improve the library experience of its community.

About the Author

Paul Boger has been the library manager at the University of Mary Washington's Stafford Campus

since 2010. Before becoming library manager, Paul served as the Stafford Campus reference and instruction librarian. Prior to joining the University of Mary Washington, Paul served as the reference/worldwide media services librarian at Embry-Riddle Aeronautical University. Paul holds a BA in English from St. Bonaventure University and a MLS from Indiana University. His interests include developing and promoting online library services for distance learning and commuter students.

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CREATING A DIGITAL ARCHIVES WITH WORDPRESS

By Kelli Bogan

Bogan discusses the approaches taken by several archives in using WordPress, the affordances inherent in the CMS for archives, and how it may, in the future, be an even better fit for the archival community.

WordPress has become much more than a blogging tool and is now considered to be one of the most widely used open source CMSs worldwide. The expansion of WordPress's role means that all sorts of organizations are considering this software to manage their collections; one such possibility is for archives to use this tool to display their digital content. This article will look at what CMS options are available for digital archives (sometimes more broadly referred to as digital libraries), how archives are currently utilizing WordPress, and the possibilities the release of WordPress 3.0 creates for digital archives.

CMS for Digital Archives

Before delving into the world of WordPress, let's look at other CMSs that are available for digital archives. There are large CMSs designed without a specific audience in mind, like Drupal and Joomla! Others were designed specifically for libraries, archives, and museums; these include CONTENTdm, Greenstone, and Omeka. Note that this is neither an exhaustive list nor an in-depth look at any of these solutions.

Drupal is a PHP/MySQL-based, open source CMS that has been around since 2001. It was not designed specifically with libraries, archives, and museums in mind, but it can be used for anything from personal blogs to corporate sites. It has a sophisticated programming interface that can be daunting to new users. Once its steep learning curve is overcome, Drupal allows extensive customization and social features, and it has a large open source community supporting it. One of the biggest downsides to Drupal is that it is considered to be more developer-friendly than user- or designer-friendly.

> *Drupal*
> http://drupal.org

Joomla!, like Drupal, is a PHP/MySQL-based, open source CMS that was not designed specifically for libraries, archives, and museums. It has been available since 2005 and is considered relatively user-friendly. It is also considered to be flexible and allows for extensive customization if the user has the appropriate technological skills. Joomla!'s biggest disadvantage is that it cannot create multisites.

> *Joomla!*
> www.joomla.org

CONTENTdm, distributed by OCLC, is a digital content management software designed specifically for libraries, archives, and museums that has been used widely since 2001. It runs on a Windows-based system and allows for integration with other OCLC products, including WorldCat. CONTENTdm can be hosted locally or through OCLC. It claims to handle any file type and can be used as a digital library, an institutional repository, or a combination of the two. It is an out-of-the-box system, but customization is possible through an API. It allows for batch processing and is standards-based, including Z39.50, Dublin Core, VRA, OAI-PMH, and METS. The major disadvantages of CONTENTdm are that it is a pay service, with price increasing based on number of items, and that it does not have the Web 2.0 functionality desired by many institutions.

CONTENTdm
www.contentdm.org

Around since 1996, Greenstone was developed as an open source suite of software tools by the New Zealand Digital Library project for the building and distribution of digital library collections. This software allows users to create content in a variety of formats, including JPG, MP3, and PDF, that can be published on the Internet or to a CD-ROM. It is platform-independent and uses Dublin Core as its default metadata standard, although any standard can be used. The limitations of Greenstone are that it is item-centric, it contains complicated URLs, and it is difficult to authenticate and add users.

Greenstone
www.greenstone.org

The final open source library-, archives-, and museums-specific product is Omeka. Developed and supported by George Mason University's Center for History and New Media, Omeka is a PHP/MySQL-based system that is Dublin Core– and OAI-PMH–compliant. It is a user-friendly, Web-based interface that can be customized through themes and plugins. Omeka also contains a variety of Web 2.0 features, including comments and tagging, and it also has an exhibit builder that allows users to create online exhibits.

Omeka
http://omeka.org

So why should archives consider WordPress over one of these options? For one thing, as its popularity has increased, potential digital archives creators may already be using WordPress in their everyday lives, allowing them to work in a familiar and comfortable environment. WordPress is considered to be one of the most user-friendly programs available, with the only limitations being the user's own skills (more on that later). And finally, there are WordPress plugins that are designed specifically for libraries, museums, and archives, making it comparable to the specialized options that are available. To better understand WordPress's capabilities, let's look at different ways that archives can use and are using WordPress to share collection information.

Using WordPress.com for Digital Archives

WordPress.com is a Web-hosting software that provides unlimited database storage, automatic software upgrades, comment tracking, and use statistics. It is the "don't make me think" version of WordPress. Archives can use this version of WordPress to blog about their collections and events and to create interactive exhibits.[1]

Two examples of archives using WordPress in this manner are the Drew Archival Library in Duxbury, Massachusetts, and the Cleveland Colby Colgate Archives at Colby-Sawyer College in New London, New Hampshire. These two archives are using the same WordPress theme, MistyLook, to create two different archival experiences.

The Drew Archival Library uses WordPress both as a blog to share news, events, and highlights from the collection and as a catalog to provide access to the archives' finding aids. The blog feature allows the Drew Archives to use the WordPress tagging feature to identify people and subjects being discussed in a post. The archives can also place posts into specific categories such as collections, news, and events to provide users with an easy way to retrieve old posts that fall under the same category.

Drew Archives
http://drewarchives.org

In addition to the main page, the Drew Archival Library site includes pages that share information about the archives facilities, allow users to ask reference questions, highlight archives events, and provide access to the archives' finding aids.

The Cleveland Colby Colgate Archives (CCCA) uses its WordPress blog for the exhibit *A Day in the Life*, which is a part of Haystack, Colby-Sawyer

College's digital archives. This exhibit focuses on Patience Cleveland, a Hollywood actress from the late 1950s through the early twenty-first century. The blog is used to post every day a new, transcribed entry from Cleveland's diary that corresponds to the current date for a "this day in history" type of exhibit. In addition to the blog posts, the site also provides monthly updates that share what has happened in the diaries thus far, Patience Cleveland's biography, and general information about Haystack and the CCCA.

A Day in the Life
http://patiencecleveland.WordPress.com

Haystack
http://archives.colby-sawyer.edu

Both the Drew Archival Library and the *Day in the Life* exhibit use the exact same system and theme to share their digital content with their users in unique ways. Since both sites are using the same template, each has a right sidebar. The Drew Archival Library uses its sidebar as a way to access its finding aids, to browse posts, and to subscribe via e-mail to the blog. The CCCA uses its sidebar to link back to the college's main archives website and the digital archives, to browse previous posts and tags, and to see comments that have been made on the diary entries. These two organizations have been able to use the free version of WordPress to create sites that work for them and their users.

Using WordPress.org for Digital Archives

WordPress.org is free blogging software that a user must download and install on a webserver. This version of WordPress places full responsibility on the user to deal with issues like spam, updates, and backups. WordPress.org also requires more technical skills than WordPress.com; skills using CSS, HTML, PHP, MySQL, and JavaScript are all necessary. With these skills, WordPress becomes fully customizable through code and plugins. Users can create custom themes, modify layouts, and develop advanced websites not possible with WordPress.com.[2] Archives have begun to use WordPress.org to create "catablogs."

UMarmot is an interactive catablog that was developed in 2007 at UMass Amherst. The site provides overviews of the collections held in the archives, including a brief description of the collection, subject terms and categories associated with it, and links to digital resources and finding aids when available. It also includes links out to the digital collections and to general information about the archives.

UMarmot
www.library.umass.edu/spcoll/umarmot

The Norwich University Archives and Special Collections (NUASC) had a soft launch of its new catablog in March 2009. This project began as an effort to address technology needs at NUASC, particularly the need for online finding aids. Development of this project began in June 2009. NUASC employee Laurie Thompson researched several archival management systems, including Archon, Eloquent, and Minisis 2A, but was concerned with the time-consuming workflow, potential demands for design and maintenance, and lack of Web 2.0 capabilities in some of the programs. Thompson and the archives staff expanded their search to look at CMSs that were not specifically developed for use by archives and learned of UMass Amherst's new catablog. NUASC contacted UMass and other catablog early adopters, Drexel University and the Brooklyn Historical Society. After several communications, NUASC determined that a catablog was the best solution for their needs.

NUASC catablog
http://library2.norwich.edu/catablog

Drexel Archives catablog
www.library.drexel.edu/blogs/collections/index

Brooklyn Historical Society catablog
http://brooklynhistory.org/library/wp

After deciding that a catablog was the right solution for it, NUASC looked at other blogging platforms, including Blogger and TypePad, before deciding on WordPress. Its decision to use WordPress was influenced by several factors:

- The library was already using WordPress for its library news blog, so there was already familiarity with the software.
- The other catabloggers it was in communication with were all using WordPress, and much of the advice that NUASC received was specific to that CMS.
- WordPress was recommended over other software by Norwich's director of Web communications.
- WordPress.org blogs are not remote-hosted and allow for a greater degree of control and customization.
- WordPress's support and development community seemed to be the most active and productive.

Although NUASC tried to select a theme (Suffusion by Sayontan Sinha) that had a lot of options for enhancing appearance and functionality in the out-of-the-box setup, it also did some theme customization. Most of the customization done related to getting posts to appear in alphabetical than chronological order and removing the date from posts. Other customizations were done through plugins, including the print-friendly option.

The published site includes information about the archives facilities, tools for the faculty, information for researchers, and frequently asked questions. It also allows users to browse collections by category, class year, and war. NUASC provides brief overviews of each collection, and selecting More About Collection provides the user with a detailed finding aid, including use and access restrictions and preferred citation information.

Thus far, NUASC is pleased with its catablog and sees many benefits in using WordPress. It was able to implement the catablog with minimal support from Norwich's IT department; instead, the technology and system librarians handled all of the theme customizations and WordPress upgrades. All other aspects are handled by the archives staff. Additional advantages are that the administrative interface does not require too much technical expertise or training to start and that NUASC was able to get its finding aids online quickly; collection descriptions can be quickly published, edited, and illustrated directly by archives staff; NUASC has more control over structure, content, and workflow and can match these to its budgetary and staffing constraints; it can use plugins to enhance or add functionality; the CMS offers greater potential for user interaction; and tags and categories can be used to reflect the organization and structure of its collections. The greatest disadvantage NUASC has seen is in the weakness of WordPress's default search and the limitations of other search plugins.

At the time of publication, NUASC was focused on making descriptions of all its collections available and processing newly acquired collections. However, its next goal is to begin exploring options for digitizing some of its collections, most likely starting with the university yearbooks. Although it has not reached the planning portion of this stage, it has been pleased with its experience with WordPress, and WordPress would be a possibility. Also, whatever system NUASC eventually chooses to digitize its collections, it wants the system to integrate into the structure of the catablog.[3]

Both of these institutions have capitalized on the user-friendliness of WordPress to make interactive sites in which to share their content and archival information. However, neither of these institutions is currently using it as a place to share digitized images of their collections. Transforming WordPress into a digital archives requires a little more work and technical skill.

Expanding WordPress—Scriblio

Released publicly in the fall of 2007, Scriblio (originally WPopac) is an open source plugin that "adds the ability to search, browse, and create structured data"[4] in WordPress. A project of Plymouth State University and partially funded by the Andrew Mellon Foundation, Scriblio started as a plugin that allowed users to add extensibility and functionality to their online public access catalog (OPAC). However, it quickly evolved from a system with "mostly just display and social interaction interfaces to data that's created or managed elsewhere"[5] into a system that allows the creation and management of collections. Like WordPress.org, Scriblio requires the user to be familiar and comfortable with PHP, MySQL, CSS, and HTML. The install itself is relatively straightforward, with video tutorials available on the Scriblio website that walk users through the installation and setup.

Scriblio
http://wordpress.org/extend/plugins/scriblio

Scriblio Video Tutorials
http://about.scriblio.net/download

The Cleveland Colby Colgate Archives (CCCA) at Colby-Sawyer College worked with Scriblio developer Casey Bisson to develop a new interface for Scriblio that is designed specifically for archives; the end result was one form that allows a user to manually add library or archives collections into Scriblio's metadata editor, or meditor.

The new archival elements in the Scriblio meditor are based on unqualified Dublin Core. There is a special post form called New Catalog Record that users manually complete about an item or collection. Some fields apply specifically to archives, others to libraries, and some to both. For example, both archivists and library catalogers would fill in the Title field, but the Standard Numbers field would be used only by an archives when describing a special collections book.

Not all of the information created in the meditor is available through the public interface. Fields such as Archival Source are hidden from users; it was created so that the digital archives' admins can find that item again in a collection when necessary (for example, when prints are requested or a user comes in to see an item found through the digital archives).

All public fields are searchable and browsable in the user interface. This is done through widgets called Scriblio facets. Administrators can decide which fields should appear in the search and browse, the maximum number of results to be shown, and whether to display the results in list or cloud format.

In addition to the meditor, Scriblio allows users to create interactive exhibits. A basic exhibit can be created through a standard WordPress page. Narrative and photographs can be added into the content box. Images can be linked, allowing users to click on an image in the narrative and go to the item record for more information about that particular image. More complex exhibits can also be created, but this requires a higher level of technical skill. To customize an exhibit, the WordPress user must create a custom template in PHP. The coding for these exhibits will vary depending on the type of exhibit that an archives would like to create.

There are other components that make Scriblio appealing for digital archives. It has a simple and easy-to-use design that is built directly on top of WordPress. The plugin includes faceted browsing and searching, making it easy for a user to narrow his or her search. It also has an auto-suggest search box, which offers search terms based on the subjects and keywords entered into the meditor. Scriblio contains many Web 2.0 features that are desired in digital archives, including comments, tags, RSS feeds, and the ability to share images by e-mail, Facebook, Delicious, and other social networking systems. Finally, it allows users to track statistics through BStat (an additional plugin developed in conjunction with Scriblio) and Google Analytics.

There are still some places for development in Scriblio. There is no advanced search, which is confusing to users who are not comfortable with faceted browsing and searching. When browsing, there is no option to see all the results for creator, subject, or other fields shown on the initial browse page; instead, users are seeing only results based on the most recently uploaded images in the digital archives. This setting makes users believe there are no subject headings, etc., other than the ones shown on this page. Scriblio is also limited in the formats that it can upload. At the moment, the meditor can handle only JPGs. If a digital archives wants to include audio or video files, that has to be done through an exhibit or a traditional post. Also, each record can have only one image attached to it. Finally, Scriblio has a small user community and support system, which is difficult if users do not have a strong IT department at their institution.

Scriblio Google Group
http://groups.google.com/group/scriblio

Digital Archives Using Scriblio

Beyond Brown Paper was the first digital archives to use Scriblio. Started in 2006, it was developed as a collaborative effort between the Spinelli Archives at Plymouth State University, the Karl Drerup Art Gallery,

and the Center for Rural Partnerships. The project originated with a desire to document the history of the Brown Paper Company in Berlin, New Hampshire, and was created with the hope of receiving commentary from former employees and their descendants. Beyond Brown Paper represents a single collection from the Spinelli Archives. The post entries are relatively sparse, containing a generic title, the image itself, related items, and a list of subject headings. There is no description of the item, supplied title, date, or other metadata attached to the items. This digital archives is really designed to solicit information from its users.

Beyond Brown Paper
http://beyondbrownpaper.plymouth.edu/browse

Spinelli Archives
http://library.plymouth.edu/archives

The Cleveland Colby Colgate Archives' digital archives, Haystack, was launched in November 2008 and, at the time of publication, has been an active WordPress/Scriblio site for more than two years. Haystack uses more features than Beyond Brown Paper, which was developed before the additional digital archives elements were added to Scriblio, and unlike Beyond Brown Paper, Haystack is a digital archives for all digital content created at Colby-Sawyer College, not a single collection. Materials that have been scanned and are available include photographs, diaries, correspondence, and yearbooks from a variety of collections held at the college.

Development of Haystack began in the spring of 2008. The CCCA began researching solutions for a digital archives with some specific criteria in mind. The archives wanted an intuitive, affordable, and user-friendly interface for both the front and back end. It was also looking for a system that could be deployed quickly, handled multiple formats, had metadata built in, incorporated Web 2.0 features like comments and tagging, allowed for the creation of virtual exhibits, could move easily to a new system, and could be implemented by a small staff. The CCCA looked at both pay services and open source options for the digital archives, including CONTENTdm, Greenstone, XTF, and Scriblio. During this process, the archives staff saw Beyond Brown Paper and liked the idea of it. However, they wanted to add some archives-specific features to the current form. The college archivist (the author of this guest piece) began a correspondence with Scriblio developer Casey Bisson, and after this correspondence, the archives decided to use Scriblio for its new digital archives.

The CCCA and Colby-Sawyer College did not have the IT staff to handle an open source solution, so the archives hired Bisson as a consultant in the summer of

Using WordPress as a Library Content Management System   **Kyle M. L. Jones and Polly-Alida Farrington**

2008. Bisson was responsible for installing Scriblio on the college's server and developing any customizations the archives designed. The digital archives launched in November 2008 with 600 items.

Item entries in Haystack include a supplied title, date and creator (if known), a brief description of the item, subject headings, tags, format, transcriptions, translations, and hidden metadata including preservation information, location of the original, and physical dimensions of the item. On the public interface, users can use all of the social networking tools available through Scriblio and WordPress. They also see a list of recently commented-on items, items that other users are looking at, and other items in the digital archives that might be of interest to them based on their image selection. Users can order prints of the images directly through the website using a simple online form linked directly to the item of interest.

The other feature that Haystack capitalizes on is the exhibits. Colby-Sawyer College has several exhibits using the standard WordPress page to share a narrative with images. Examples include a timeline of the college's history and an exhibit on ghost stories related to the college. The CCCA has also developed custom exhibits created through a custom template. One example is *A Needle in the Haystack*, which is an exhibit that is updated on the first of every month with a new photograph. The custom template was created for this exhibit using PHP. The code tells the exhibit to look for posts with an exhibit called Featured Photo and to display the most recent post with this classification.

Colby-Sawyer College Timeline
http://archives.colby-sawyer.edu/exhibits/colby-sawyer-college-timeline

Haunted Colby-Sawyer
http://archives.colby-sawyer.edu/exhibits/haunted-colby-sawyer

A Needle in the Haystack
http://archives.colby-sawyer.edu/exhibits/featured-photo

To select an image for this exhibit, a Haystack administrator must go into the meditor and under Subject select the category Exhibit from the drop-down menu and describe the exhibit as Featured Photo. The administrator then schedules the image for the day that he or she desires the image to replace the current photo of the month (in this case, on the first of the month). On the day selected, the image will publish and automatically replace the previous one. One of the nice elements of this feature is that the Featured Photo tag remains with the image after its time in the exhibit so the administrator never makes the mistake of using the same image twice.

As mentioned above, the CCCA did a great deal of customization to Haystack. Working with Casey Bisson, the archives developed several custom exhibits. It also customized its theme, basing it on the WordPress theme Amazing Grace. The biggest changes to the theme were made on the homepage and the browse/search pages. These pages now use a horizontal image and exhibit layout to make facets and other information more visible and usable. Also, when a user hovers over an image, a pop-up window appears that provides a quick preview of the image and its description. This display helps users decide if they want to click on an image for more information.

Amazing Grace
www.prelovac.com/vladimir/wordpress-themes/amazing-grace

Public reactions to Haystack have been generally positive, and overall the archives staff is pleased with the final product. Other archives have commented on the simplicity of the design, the ability to add comments and tags, and the faceted browsing. Users like the fact that they can easily share images and order prints in one step. They have no difficulty adding comments, and many Colby-Sawyer professors use the site to supplement their curriculum. However, there are some elements that users don't like or feel could be improved. Feedback from users has revealed that Colby-Sawyer students prefer a list of subject headings over a tag cloud. (Although this can be changed, the list version, without a way to see a complete list of subject headings, would be even more confusing to users.) The archives' older community users find faceting browsing and searching confusing. All users have expressed that they need a print-friendly option, that they wish they could see more than seven results per page, and that they don't like the quick preview. Based on user feedback, the archives is currently maintaining two versions of the *Day in the Life* exhibit, one through Scriblio and the other through WordPress.com. Interestingly, many users have stated that they prefer the WordPress.com version of the exhibit.

From the perspective of the archives staff, Scriblio has a simple back-end interface, and it is easy to train work-study students and other employees to use the system. One work-study student who had used Scriblio but had never used WordPress recently started her own WordPress blog and was shocked at how identical the two interfaces were. The exhibits are easy to create, and comments come right to staff e-mail inboxes, ready to be moderated. There is a fair amount of spam that comes into the system, but most of it is caught by the Akismet spam plugin.

The archives has also had some issues with

Scriblio. Frequently, uploading an image causes the web browser to crash, slowing down production; diagnostics have shown that the problem does not appear to be on Colby-Sawyer's end. The lack of an advanced search as an alternative to facets is also an issue. Specific to the institution, the lack of on-site developers means that the CCCA has to rely on a consultant for upgrades and customizations, which is an added expense, and it is difficult for a smaller institution to maintain this cost. Finally, there is not a lot of support on the Scriblio website, and the forum is not very active.

The Future of WordPress

In the summer of 2010, WordPress released WordPress 3.0, nicknamed Thelonious. In this upgrade, there are two features in particular that stand out as pivotal for the development of digital archives using WordPress: custom taxonomies and custom post types.

A post is one of five default types in WordPress; the others are page, attachment, revision, and nav menus.[6] Basically, when a back-end user selects one of these types, he or she goes to a form designed specifically for that type. So the page form is different from the post form.

Although these two forms look similar, there is different information attached to each form that tells WordPress what structure to give it and how to display it. A custom post type lets users create a form that works exactly for his or her needs; it has only the fields that the user wants and creates. This development is similar to Scriblio's Catalog type—the big difference here is that now it is integrated rather than a plugin. Users still need to be familiar with PHP and MySQL in order to use this feature through the function `register_post_type`. This customization allows the type to be searchable on the site, it gives items in it custom URLs, and metaboxes can be created. Tech-savvy users can now do on their own a lot of what was part of Scriblio. Once developed, it will be a friendlier user experience; users will not have to use a form developed for both archives and libraries, but will be able to use fields applicable only to their field and institution. Users could also take it a step further, making different post types based on format: One form will be used for photographs, another will be used for documents, etc. This addition really moves WordPress beyond a blogging software to a real CMS.

For more info on custom post types
http://kovshenin.com/archives/custom-post-types-in-wordpress-3-0

The other new feature that is relevant to digital archives is the custom taxonomies. Taxonomies are tags and categories that are attached to posts. Custom taxonomies allow users to create categories (such as subject, creator, etc.) that the user can search. This customization also requires some code in theme's `function.php` file. Custom taxonomies appear to be a step toward the faceted browsing and searching available in Scriblio, although they are not there yet.

For more info on custom taxonomies
www.1stwebdesigner.com/wordpress/essential-guide-wordpress-custom-taxonomies

Casey Bisson offered this statement on the Scriblio Google Group in response to the release of WordPress 3.0:

Interestingly, the features that Scriblio adds to the WordPress ecosystem are increasingly being done within the WordPress core. Improved support for custom taxonomies and the custom post types recently added make it very easy to use WP to manage and serve non-blog content including bibliographic records. Given that, the Scriblio features that support the display, creation, and editing of bibliographic records should be refactored to use the in-built features.

The other significant feature that Scriblio adds to WP is the ability to search and browse that content with facets. Here again, the improved support for custom taxonomies in WP's core seems to be paving the way to adding the faceted search and browse features to the core as well. I'm pushing for that incrementally, most recently with a patch that fixes an inefficiency in WP's custom taxonomy queries. That fix won't give WP all the search/browse features that Scriblio adds, but it's a start. Building the taxonomy query features into core will encourage more development and optimization of them, and externalize a significant portion of Scriblio's maintenance.

So the big question is how to refactor bibliographic records into a custom post type. Anybody want to pitch in?[7]

Conclusion

Archives have begun to use WordPress in a variety of ways: as a CMS for general information and access to finding aids, as an exhibit builder, and as a full-fledged digital archives. As WordPress continues to move away from its blogging roots, it will continue to offer new opportunities for digital archives.

About the Author

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Notes

1. "WorldPress.com vs. WordPress.org," WordPress .com Support, http://en.support.wordpress.com/com-vs-org.
2. Ibid.
3. A big thanks to Gail Weise and the staff at the Norwich University Archives and Special Collections for corresponding with the author and sharing their experience on the development of their catablog.
4. Casey Bisson, "Scriblio 2.7 Released," Feb. 25, 2009, Maison Bisson, http://maisonbisson.com/blog/post/13484/scriblio-27-released.
5. Ibid.
6. "Post Types," WordPress Codex, http://codex.wordpress.org/Custom_Post_Types.
7. Casey Bisson, posting to Scriblio.net Google Group, Sept. 1, 2010, http://groups.google.com/group/scriblio/browse_thread/thread/d3b0d1dc86954635.

TEN WAYS WORDPRESS CAN IMPROVE WEBSITE UX

By Aaron Schmidt and Amanda Etches-Johnson

User experience (UX) gurus Schmidt and Etches-Johnson talk about ten simple ways to easily improve the UX of WordPress.

You're concerned about the user experience of your WordPress site. That's good. We think you should be. While you can't create a good online user experience by just sprinkling some magic UX dust on your site (if only it were that easy!), the good news is that there are a number of features and functions baked right into WordPress that you can take advantage of to enhance the user experience of your site—and maybe even delight your users along the way!

1. Visual Design

If you've searched Google for WordPress themes, then you already know that there are literally millions of free theme options. (Caveat emptor: When you download a free theme, you are also downloading the theme designer's coding quirks. Your theme might work just fine for you, but if it doesn't, you might have to dig into the theme files and clean things up on your own.)

Choice is good, and even if your site has specific branding needs, you will probably be able to find a theme that will work for you with a little tweaking. One of the best things about the WordPress user experience is that regardless of your theme, there are a few design and layout cues that your users might be familiar with and expect to function in a certain way. Things like sidebars, menus, categories, and post permalinks are common to most WordPress sites, so if your users have seen or used a WordPress site before, they will experience a kind familiarity when navigating your site (which can only be a good thing).

2. Content

One of the best things about database-driven CMSs (like WordPress) is the separation of content and design. Once you've decided on and tweaked your WordPress theme to your liking, the only thing you need to focus on is content. Content is important because you can't provide a good user experience with a pleasing design alone. Thanks to WordPress's simple post form, adding content is a breeze, and the built-in ability to publish posts in the future means your users never have to suffer through stale content.

3. Voice

Talk to any Web content strategist, and one of the things he or she will harp on is authenticity, especially when it comes to social media. Because WordPress makes it so easy to distribute the content generation workflow and allow many authors to contribute, you're already well on your way to good, authentic content if you incorporate multiple authors and voices. You'd be well-advised to include a set of content guidelines so your users aren't baffled by inconsistency in voice (not a good user experience), but be sure to allow your content folks the latitude to be themselves. There's nothing authentic about marketing copy (especially on a blog), so don't miss the opportunity to really connect with your users through thoughtful, engaging voices.

4. Organization

Speaking of consistency, WordPress's built-in archiving is easily one of the best features of the software. Spend some time considering what sort of content will go on your blog and what retrieval mechanisms would be useful to your audience. If you're using the blog for newsy articles, date and category archives make sense. If, on the other hand, you're using the blog functionality to generate subject guides for your site, you can probably dispense with the date archives and put your efforts into building a useful taxonomy out of the category feature. Let your content drive your decisions here, and your users will reap the rewards.

5. Built-in Search

There is a usability theory out there that says that users search a site only when they can't figure out how the navigation works or when they lose the "scent" of what they're looking for. While that might be true, in the strictest human-computer interaction sense, there is a whole subset of users who would rather just search your site to start with instead of using the navigation options you provide (blame Google). Luckily for you, WordPress comes with a built-in search feature that works remarkably well and includes useful wayfinding features like including your search terms at the top of the search results page (a tiny detail that pays dividends in orienting your users to where they are on your site).

6. Human URLs

This may seem like we're picking nits, but having an intelligible URL scheme for your website is a smart move. For example, why make patrons look at something confusing like:

http://ml.lib.state.us/ys/kbks.html

when your URLs could be much more user-friendly, like this example:

http://libraryname.org/kids/books

Sane URLs provide context, reflect what's on the page, are easier for patrons and librarians to remember, and are more effective when used in promotional materials. With WordPress, making your URLs pretty is straightforward. You'll have to edit or create a special file called `.htaccess`, but don't fret. The WordPress Codex has a step-by-step guide to creating more effective URLs.

> *WordPress Codex: Using Permalinks*
> http://codex.wordpress.org/Using_Permalinks

7. Comments

Simply opening up your site to comments won't turn your site into an online community. Engaging in meaningful dialog via websites takes effort. Luckily, WordPress gives you straightforward, granular control over receiving feedback from your readers without much effort. You can devote the time you save to writing meaningful replies to the comments that you receive.

8. Information Architecture (IA)

Your well-crafted content should be easy for people to navigate through and find. While WordPress won't help you with the important task of labeling your pages (try card sorting for that), it does have an easy-to-implement parent and child page structure that can guide you to creating effective IA. To layer on some more findability, take a look at adding in some breadcrumbs.

> *Breadcrumb NavXT plugin*
> http://wordpress.org/extend/plugins/breadcrumb-navxt

9. RSS

WordPress can be extended to be much more than a simple blog. Still, built in to the core of WordPress is RSS. Having RSS feeds available not only provides you the opportunity to repurpose your content in places like Facebook and Twitter, it also lets those who are interested receive your library info in feed readers. WordPress has feeds for everything from posts, comments, and search results, to categories, tags, and even author-specific posts.

> *WordPress Codex: Finding Your Feed URL*
> http://codex.wordpress.org/WordPress_Feeds#Finding_Your_Feed_URL

10. No-Effort Mobile

The developing trend in web design first for mobile devices is an interesting one, especially as mobile browsing becomes more capable and mainstream. Have you checked your website analytics for an idea of how many people are accessing your website using mobile devices? You should.

Many WordPress themes display well on mobile devices. The code is usually relatively clean, so mobile browsers have an easy time rendering the pages. Should you want to provide a dedicated interface for your mobile patrons, explore some of the WordPress plugins available to do just that. Most of these plugins will allow your site to detect mobile browsers and accordingly serve up an appropriate style sheet. Two popular options are WordPress Mobile Edition and WordPress Mobile Pack.

> *WordPress Mobile Edition*
> http://wordpress.org/extend/plugins/wordpress-mobile-edition
>
> *WordPress Mobile Pack*
> http://wordpress.org/extend/plugins/wordpress-mobile-pack

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USING WORDPRESS TO CREATE A VIRTUAL SCHOOL LIBRARY

By Anne Robinson

Robinson walks readers through a WordPress-powered virtual library for her UK-based school.

Library Online is the main website for the Michael Parker Library at the Dixie Grammar School in Market Bosworth, Leicestershire (UK). The school is a small co-educational selective independent school dating back to Tudor times. The main building, where the library is situated, dates from 1828. I was appointed as the first professional librarian in September 2008, with the task of supporting the school in refurbishing the library. The planning for this project took place during the 2008–2009 academic year, with the main work starting in the summer of 2009. The Michael Parker Library was opened in October 2009.

Library Online
http://library-online.org.uk

The school already had an attractive and well-designed website, but I felt that this was mainly for corporate use as an online prospectus and information point for parents. As a very experienced school librarian (this was my sixth school post since 1982) and a passionate believer in the power of technology to enhance teaching and learning, I wanted to create a Web presence for the library from the outset, for the following reasons:

- I would be managing the old library for a year before the refurbishment and wanted to be able to offer some kind of improved service to the school. The library book stock was in very poor condition and unable to support the curriculum adequately. I therefore needed somewhere to put subject pathfinders or lists of evaluated weblinks.

- I wanted to demonstrate to the school community that a professional librarian could have a real impact on the school. A library website could also be used to showcase exciting Web 2.0 sites—proving that libraries and librarians are involved in information and communication technology!
- The library website could be used to communicate ideas and plans about the refurbishment program and enlist contributions from the school.
- The website could track the refurbishment, showing images of the plans, photographs, and step-by-step progress.
- The development of library services could be clearly demonstrated to the school.
- The website could invite collaboration from staff and students and feed ideas into future library developments.
- The library website could also be used as a way of evaluating progress and demonstrating accountability to the school management team.

So, I was asking a lot from the website—it really needed to deliver on a range of levels!

The Dixie Grammar School
www.dixie.org.uk

I did have quite a lot of experience in writing and managing websites. Way back in 1998, I had taken a college course on creating websites in HTML. I had then taught myself how to use FrontPage and later on Dreamweaver so that I could create a library website, LRC Online, in my previous post, and also a site for school librarians, Strongest Links.[1] These sites were very laborious to edit and update and caused me lots of issues as I could not use FTP to update them at school, due to the filtering system in place, and had to do a lot of work from home. I was also becoming more and more interested in developing technologies and Web 2.0—such services as Twitter, RSS feeds, blogs, wikis, and so on.

After I was appointed to my new post at the Dixie Grammar School, but before actually starting, I had a month's leave. During that time I began to look around for something that would help me create a new website. It would have to allow for these features:

- An exciting, modern, attractive design that would mirror the school colors and be appropriate for a wide audience: students, staff, parents, librarian colleagues, etc.
- Ease of editing and updating—I would be working without additional library staff, and so would not have a lot of time to spend on the site.
- Something that would not be blocked by the school filtering system.

- The ability to include widgets for Web 2.0 services.
- The ability to have some degree of collaboration, feedback, or comments.
- Something that would be easy for me to learn—I wanted the site up and running as quickly as possible.

I already had an idea that I would look at some kind of CMS, but having read extensively about Joomla! and Drupal, for example, I decided that these might need more technical expertise than I possessed! Then, I realized that I was already using Edublogs for my personal blog—I was very happy with the WordPress software that powers Edublogs and felt confident that this would answer all my needs. First of all, I started a blog on the free WordPress.com site, but quickly realized that I wanted more control over themes and so looked around for a company that would offer me a free trial with a hosted WordPress blog. I tried this out over the summer of 2008 to make sure that I would be able to update the site easily and then paid for my first year of hosting.

Joomla!
www.joomla.org

Drupal
http://drupal.org

Edublogs
http://edublogs.org

WordPress.com
http://wordpress.com

My early updates of the WordPress software had to be done manually using FTP, which was a bit of a challenge. However, I wrote a detailed set of instructions so that I could remember what to do. More recently, the latest software updates have worked automatically, as have backups.

As I have mentioned, I actually started the site before my first day in my new job. So there was an issue that I would need to sort out before the site could go live. I showed it to my headmaster very quickly to check that he was happy with a library site running separately from the main school site. If he had not been, I would have taken all the school branding off the site and used it for another purpose. Thankfully, he and the management of the school were thrilled with the site and have encouraged me to continue developing it ever since. I also know that governors and parents have seen the site, and I have had a lot of very positive feedback from them. Many students are also beginning to look at the site, although few are

commenting—this needs to be improved.

I chose WordPress, as opposed to other blogging services, for the additional reason that I could make the site look quite "unbloggy." The pages have enabled me to develop further sections to support the services of the library. For example, all presentations and documents that I use in teaching are added to the site either using SlideShare, or embedded if they are Prezis. I have also been able to add a password-protected page to hold our new range of online resources. A range of widgets has enabled me to feed in many of the Web 2.0 sites that I find useful:

- links to recommended websites, tagged on Delicious
- photos on the Flickr site of the library as it develops
- our book catalog on the LibraryThing website (We do not have a Web OPAC at the moment.)
- our news services from the United Kingdom, France, Germany, and China using the Netvibes platform
- presentations on SlideShare
- the wiki that we use with students to promote reading development—Reading Is Fun
- our video channel on YouTube
- news feeding in via our library Twitter account

SlideShare
www.slideshare.net

Prezi
http://prezi.com

Library Online @ Delicious
www.delicious.com/DixieLibrary

Library Online @ Flickr
www.flickr.com/photos/library-online

Library Online @ LibraryThing
www.librarything.com/catalog/dixielibrary

Library Online @ Netvibes
www.netvibes.com/library-online

Library Online @ SlideShare
www.slideshare.net/LibraryOnline

Library Online Wiki
http://library-online.pbworks.com

Library Online @ YouTube
www.youtube.com/user/LibraryOnline

Library Online @ Twitter
http://twitter.com/Library_Online

I also use many more Web 2.0 services to enliven the site from time to time, such as Animoto, LiveBinders, and Slide. As my use of such sites has developed over time, although this is still very early days, I have now branded them all as Library Online Services with clear links from the main site.

Animoto
http://animoto.com

LiveBinders
http://livebinders.com

Slide
www.slide.com

Now that the site has been running for two years, I am trying to plan for its future development. There are some issues that I need to think through:

- As the sole editor, I need to make sure that there is fresh content on the site regularly, particularly on the blog section, which is the front page, and make time in my weekly schedule for this. I also must make sure that I have a monthly or half-termly slot for checking through the static pages to make sure they all work and that their content is still current.
- I need to get the site used, viewed, and commented on by students and staff in the school. Therefore, the content needs to reflect their needs, both curricular and extracurricular, where appropriate.
- A very prominent link from the official school website might help more of our school community to find the library site.
- I must also think through the implications for the site of teachers making increasing demands for me to search out evaluated weblinks and make subject pathfinders. Can the site hold these, or should I look for alternatives? Would the site become too unwieldy in the future?
- There is an urgent need to make sure that I have a robust backup strategy in place—regular downloading of backups and putting them on my home computer might be a good idea!
- I need to learn more about plugins—this is an area that I know little about and have avoided because I am not very confident about uploading them to the host. I am sure that I could give the site more functionality with plugins!

Over the last two years I have learned so much about new developments in web technologies—this is a very exciting time to be a school librarian. These technologies allow us to do things that were undreamed of

when I started out in the early eighties. We can reach out to our school communities 24/7, engaging their interest and supporting their development as teachers and learners. This is what my WordPress school library site and its sister sites enable me to achieve, through Library Online Services!

About the Author

Anne M. Robinson, MA, is the librarian at the Dixie Grammar School, Market Bosworth, Leicestershire, UK. Mrs. Robinson was awarded the School Library Association's (UK) very first School Librarian of the Year Award in May 2005.

Note

1. Microsoft Office FrontPage was an HTML and website administration package. For more information, see http://en.wikipedia.org/wiki/Microsoft_FrontPage. Dreamweaver is a web design and HTML editor. For more information, www.adobe.com/products/dream weaver. Both LRC Online and Strongest Links have now been taken down.

KANSAS LIBRARIES ON THE WEB

By Liz Rea

Rea details a statewide program to build and host Word-Press-powered library websites.

Sometimes in life there are moments that seem as though the final outcome has been ordained in the stars. In Kansas, that moment occurred with the rise of WordPress as a blogging/CMS platform in 2006 (with version 2.0/2.5). Couple this with the fact that many of our libraries had websites that hadn't been updated since the year 2000, and you get the conditions favorable to form a great idea: Kansas Libraries on the Web (KLOW). KLOW is a joint project of the State Library of Kansas, and the Northeast Kansas Library System (NEKLS) that provides Web space and a "library-customized" WordPress install at no cost to Kansas libraries and library organizations. As it turns out, the story of KLOW has been both comedy and tragedy, with many lessons learned along the way.

KLOW
www.mykansaslibrary.org

In 2006, Brenda Hough, the NEKLS technology coordinator, and I were looking for a project to help

Kansas libraries replace their old, out-of-date, plain-HTML websites. We had a good example of a program in another state that was doing something similar—the Oregon Plinkit project, which we thought was a brilliant idea: a central Web host with a standardized "platform" that libraries could use to create their websites. The Plinkit project also provided centralized training and documentation, something we were interested in doing as well. We spent a couple of months evaluating different platforms and realized that we didn't like the look of Plinkit sites: At the time they had a very generic and uniform look across all of the sites. We wanted our libraries to be able to customize the look of their sites as well as easily add content. We looked at Movable Type, Plinkit, Joomla!, Drupal, and WordPress. Movable Type didn't do enough and was a paid product. Plinkit didn't have the customization that we were looking for, and Joomla! and Drupal were just too hard to use (though they have since gotten much better). At the time, WordPress was a relatively new player in the blog software market, but it did have both dynamic posts and static pages, generated RSS feeds for site content automatically, easily changed between installed themes, and was easy to install on the back end. It was also already in use by at least one library (Meadville Library), and they professed to love it as a CMS for the library's Web presence. It had a few limitations. Installing custom themes on that initial WordPress version 2.0 was not easy: Installing themes required FTP access, which we were trying to avoid. Editing the sidebars involved minimally editing HTML, and there weren't many themes that were customizable through the WordPress graphical user interface (GUI), though we did include a couple of GUI-customizable themes in the final package. Our goal was to come up with a solution that allowed libraries to lose the shackles of FTP and of needing to write any HTML at all, instead using the CMS GUI to handle all of these tasks. WordPress gave us these things, even though at first the interface was a little clunky. These limitations aside, we decided to give WordPress a go with a pilot group of seven libraries.

Plinkit
http://oregon.plinkit.org

Meadville Public Library
http://meadvillelibrary.org

We spent about a month creating the KLOW WordPress package, which included a set of about twenty preselected and installed themes, preconfigured users, and a set of plugins to do various things such as event calendaring (EventCalendar) and allowing libraries to set up e-mail lists to notify interested library members that there was a new post on the website (Subscribe2). Initially, sites had to be set up one at a time, and it took approximately fifteen minutes to bring one up on the server. We set up our first seven sites and scheduled our first full day training for the pilot libraries, intending to do at least two full-day training sessions before we thought people would feel comfortable with their new sites. The pilot libraries had only one major complaint: Make the sidebars easier to customize. Fortunately, not three months later, the WordPress widget engine was built, and the sidebars became infinitely easier to manipulate; this functionality was rolled into the KLOW package.

As it turned out, the librarians had almost no trouble understanding how to use WordPress after only one day of training. All seven libraries had posted their first content on their sites and chosen a theme after that first day, and a second full day of training was deemed to be unnecessary. It was after this that we decided to roll the project out to the rest of the state, funded by the State Library of Kansas. A server was procured and deployed running Red Hat Linux and a standard Apache/MySQL/PHP stack. The server was hosted at a local data center, five minutes from the NEKLS office. The site installation process was scripted, and a site could now be deployed in just over three minutes. Signup forms were posted on the project website, along with helpful documentation and links. Over the next four years, we had 170 libraries sign up. Training for the statewide project involved a one-day training course for the trainers from the other six Kansas library systems, who would in turn pass the training on to their participating librarians.

Upgrading the sites in those first couple of years proved to be a challenge. At the time, WordPress had to be updated by replacing the core files either through FTP or at the command line, which meant, since we didn't allow our users to FTP to the server, that it had to be done centrally by the administrator. Fortunately, there were not all too many updates to WordPress in 2007. We did a mass update to WordPress 2.6 in late 2007, which took about three days to complete. The sites had to be done one at a time.

Things went along fairly smoothly until there was a major vulnerability in WordPress that caused every site on the system to be affected. This happened at the end of 2009, prompting us to move the entire system away from the hosted physical server we had been using and toward an Amazon AWS hosted server running Debian and the standard Apache/MySQL/PHP stack. After a few fits and starts, and a week of frantic eighteen-hour days, the service was back on the new server, with every site updated to WordPress 3.0, new themes, updated plugins, and many new back-end automation scripts enabled. We kept our site owners apprised of the status of their sites mostly through e-mail, our website, Twitter, and Facebook.

KLOW these days is mostly in maintenance mode: there aren't that many libraries left in Kansas that need websites. We've learned a lot about teaching people about websites and a lot about what a good library website looks like. Upgrades are much easier now, due to the built-in ability of WordPress to update automatically from within the Web interface. Our biggest challenge now is simply getting people to use the tools we've given them.

About the Author

Liz Rea is the network administrator for the Northeast Kansas Library System, the 87th patch committer to the Koha open source ILS, and an avid user of technology and the Internet.