Web 2.0 Tools Ease Renovation Service Disruptions at The Ohio State University Libraries

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ABSTRACT. The Thompson Library, the main library of The Ohio State University (OSU), began a major renovation in fall 2006 that required the library to close for three years. During this time, the bulk of the circulating collection and many of the personnel relocated to an interim facility. The distance imposed by the renovation created special challenges for service to patrons and communication among library faculty and staff. The OSU Libraries used blogs, podcasts, a wiki, instant messaging, and the campus course management system to reach as many of the constituents of the campus community as possible.

INTRODUCTION

The Thompson Library, the main library of The Ohio State University, began a major renovation in fall 2006. The Thompson Library housed more than 1.5 million items and 150 personnel, making it a focal point of library service in the center of campus. After several previous renovations over the past few decades, the original architecture and features of the building had been obscured. One goal of the current renovation project is to restore the building to its original state and to make it a centerpiece of the campus. At the same time, the renovated Thompson Library will contain the newest technology capabilities for the new century. The end result will be a beautiful, functional, and flexible environment for delivering information in both paper and digital forms. The renovation required that the library be closed for three years. During this time, the bulk of the circulating collection and many of the personnel relocated to an interim facility. The Ackerman Library, which is 2.25 miles from central campus, opened the day after the Thompson Library closed. The remaining materials and personnel moved to five other libraries across campus, with the bulk going to two of the largest libraries on the main campus; the Sullivant Library and the Science and Engineering Library.

During some renovation projects, users can be without access to collections for extended periods of time, but the OSU Libraries made an effort to keep materials as accessible as possible. Many materials were sent to the book depository in advance and those that were actually moved to a new location resulted in approximately seven days or less of unavailability. Even then, patrons were able to request items for delivery to another location and the Libraries attempted to maintain their standard service goal of delivery in about three days.

The distance imposed by the renovation created special challenges for service to patrons and communication among library faculty and staff. The Libraries' administration encouraged all members of the Libraries' faculty and staff to be creative in reaching out to patrons in order to ease the disruptions, and faculty and staff responded with a variety of initiatives. The Libraries employed many traditional methods for keeping the campus community informed about the status of the renovation and library services such as implementing a renovation Web site, frequent e-mail updates and staffing on-campus information points. While these methods were effective, they did not seem to meet all of the needs of the university community, especially the needs of tech-savvy college students. As the OCLC Perceptions of Libraries and Information

Resources report showed, college students turn first to the Web for information, and convenience is a major criterion in their information-seeking behavior (De Rosa et al. 2005). The campus community regularly uses many of the Web 2.0 tools the OSU Libraries explored; therefore, they fit within the existing framework of user practice. Web 2.0 concepts are based on interactive communication between parties in disperse locations, so this article will further detail how the OSU Libraries are implementing several of these tools to facilitate communication. The OSU Libraries are using blogs, podcasts, a wiki, instant messaging, and the campus course management system, Carmen, to reach as many of the constituents of the campus community as possible.

LITERATURE REVIEW

The renovation of the OSU Thompson Library comes at a time of great change in universities and in libraries. Rick Anderson points out that libraries need to focus on getting materials to users as they need them and on being where the users are, not waiting for the users to come to the library (Storey 2006). The fact that the Ackerman Library, which holds much of the materials and staff from the Thompson Library, is more than two miles from the center of campus makes it even more difficult for patrons to come to the library. This distance created special challenges for service to patrons and communication among library faculty and staff, making it more important that OSU Libraries' resources be made available in multiple ways. Shill and Tonner (2003) point out a catch-22 relating libraries and technology: The library isn't viewed as a technological place, while declining usage keeps libraries from getting funding for physical improvements. In order to maintain a high standard of communication and service throughout the move, the libraries not only invested in physical changes in the temporary facilities, but invested in the time and education of staff to learn some of the newer tools, making service disruptions less common and easier to resolve.

Maintaining superior levels of service has been a goal of the Libraries' since the inception of the renovation plan. The ability to maintain a high level of user service requires a new perspective that incorporates newer technologies. VanScoy (2006) discusses the use of an innovative combination of traditional and virtual reference services as a method to reach users who may not be present in the vicinity of the reference desk. She found that fifteen percent of the virtual reference transactions came from users within the library. This supports the idea that the Web is ubiquitous and a preferred communication and information access tool for many, especially college students (De Rosa et al. 2005).

WEB 2.0 IN LIBRARIES

The Web is increasingly the first stop in a college student's information search; therefore, the library must be active and engaged in the Web environment. The Web environment itself is in the midst of an evolution, often described as Web 2.0. The definition most cited when authors describe Web 2.0 is Tim O'Reilly's definition:

> Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an ''architecture of participation,'' and going beyond the page metaphor of Web 1.0 to deliver rich user experiences. (O'Reilly 2005)

For libraries, the most compelling part of this definition involves the user experience. Libraries have long focused on making the physical buildings attractive and welcoming. Now, with the advent of Web 2.0 tools, libraries and librarians are using the ''architecture of participation'' to create rich user experiences online. Librarians solve problems. They seek to get information into the hands of their patrons, to create communities of users, and facilitate lifelong learning. The exciting thing about Web 2.0 tools, such as blogs, wikis, RSS, and instant messaging, is that these are new ways to connect to users.

The July–August 2006 issue of *Library Technology Reports*, by Michael Stephens (2006b), provides an excellent overview of several Web 2.0 tools and their applications in libraries. His grounding principles for applying Web 2.0 tools reflect and expand on aspects of O'Reilly's definition, specifically the free sharing of content in easy-to-use ways and the creation of communities of participation. Stephens shares library applications and best practices from libraries already using the tools in the field. An example of one of the cutting-edge libraries featured by Stephens (2006a) is Ann Arbor District Library, which uses blogs to create a thriving online community, exceeding the library's expectations. All registered users have the ability to comment on each blog post, creating conversations among users, the library director, library staff, and the community. These conversations encourage people to register with the blog in order to participate.

The Internet is full of stories about libraries using Web 2.0 tools to reach users and to solve problems. Meredith Farkas (2006) created Library Success: A Best Practices Wiki to ''be a one-stop shop for great ideas and information for all types of librarians.'' The Library Success Wiki (http://www.libsuccess.org) is open to all to post their success stories of all kinds. This Web site is an intriguing mix of case studies, lists of libraries using specific tools such as blogs or wikis, and descriptions of issues with links to key blogs or postings on those issues. The wiki is not simply limited to topics in technology but addresses many of the issues facing libraries today.

USING NEW TOOLS TO MINIMIZE RENOVATION SERVICE DISRUPTIONS

While the OSU community commits to a new physical library for the future, the OSU Libraries' faculty and staff understands the importance of serving its community today. The key to successful service requires explorations of new technical tools to minimize the disruption caused by the renovation and closing of the Thompson Library. This applies not only to service directly to patrons but also to faculty and staff. Several studies (Moreland, Robison and Stephens 2003; Connor 2005; Di Trolio 2004) found that keeping staff informed and involved in a major move was one of the most important factors in maintaining a high level of morale and cooperation among library employees. The tools implemented at the OSU Libraries' during the move were in use to help keep communication levels at their peak.

BLOGS

The OSU Libraries began using blogs in January 2005. The Libraries installed Wordpress (http://wordpress.org/) on the Web server so all of the blogs could be under the Libraries' domain and be run on the local Web server. Maureen Donovan, the Japanese Studies Librarian, started the first of the Libraries' public blogs, the Japanese Collections blog (http://library.osu.edu/blogs/japanese/) in January of 2005 with this post:

> This site is launched to test the feasibility of blogging services to help faculty and students cope with various transitions going on in the OSU Japanese Collections. Issues include the temporary relocation of the library holdings to a former factory two miles away from the existing Main Library, the increasing location of books in an off-site

depository, the cancellation of many journals, and an increasing amount of digitized resources available to library users.

She stays true to her stated goals to the current date by posting about new resources and news related to the Japanese collection. She uses a solid set of categories to make her posts easier to search and includes links to important reference sources, such as the libraries' catalog, in the list of permanent links. She posts content to the blog in order to make the distance of her collection, which is housed at the Ackerman Library, less of an impediment to her patrons. The Japanese Collections blog is considered successful because it regularly ranks in the top five of the most visited of the Libraries' blogs and gets regular updates from its author.

Other successful public blogs are the Manga blog (http://library.osu.edu/blogs/manga/), also published by the Japanese Studies Librarian, the Hebrew Lexicon blog (http://library.osu.edu/blogs/hebrewlexicon/) published in Hebrew by the Hebrew Studies Librarian, and the Read Aloud blog (http://library.osu.edu/blogs/readaloud), all ranking in the top of the lists of most visited of the libraries' blogs. The Read Aloud blog supports a weekly program featuring someone from campus or the surrounding community reading a selection of their choosing out loud to an audience. Prior to the renovation, this program took place in the Sills Gallery area of the Thompson Library. Now that the library is closed for renovation, the program has relocated to other buildings on campus. The blog announces the upcoming readers and their selections as well as offering links to archives of the previous readings. Each session is recorded and a streaming Real Audio file of the recording is made available via the blog. ''The Science and Engineering Library,'' one of the largest on campus after the Thompson Library, holding nearly 400,000 bound volumes and housed in a freestanding five story building with 104,146 gross sq. ft. and 68,669 net sq. ft. (Science and Engineering Library), cleared an entire floor to accommodate more study spaces for students during the renovation. This required a very large shift in the Science and Engineering Library collection, which was appropriately named ''the Big Shift.'' The work itself took many weeks. In order to keep both the staff and customers aware of the current location of materials, the coordinators of the Big Shift used a blog. Each day they posted what materials were moved that day and their new location.

Another blog tied to the renovation of the Thompson Library is the Staff Move blog. The renovation and move coordinators needed a quick, easy way to get current information out to the library staff, so they decided to use a blog. The Staff Move blog became the primary place to get current information about the move. Official schedules of staff office moves were posted here, as well as more ephemeral, but important, information including when the coffee shop in the library would close.

The primary contributor to the staff move blog was the Libraries' communications officer, who served on the relevant committees and knew all of the pertinent information. A recommendation the authors of this article shared with the communications officer was to make the posting a responsibility of multiple people. While one person posting worked well, it was a challenge when there was so much to communicate to both staff and the university community. The blog date arrangement format was very effective for making the latest news easy to find but made it more difficult to find information posted previously by subject because tags were not available in the running version of Wordpress. In addition to the blog, a library staff person added information which might need to be referenced later, such as the Ackerman Library address, to a page on the wiki. Another challenge was the inability to attach documents to posts. Instead the Webmaster loaded those documents to the staff Web site, and the blog writer linked to them in the blog.

After the initial excitement, some of the original blogs experienced a decrease in activity. Some of the originally established blogs, such as the renovation discussion among the libraries' faculty and staff and some subject related blogs, stopped being used soon after their implementation because the tool just didn't work for the purpose proposed. In the case of the renovation discussions, the group found in-person meetings more productive for the

brainstorming they were doing. The original contributors to the inactive subject blogs found that either they didn't have the time or content to write regular blog entries or that their patrons didn't seem to like receiving news in this manner. Other blogs experienced a hiatus, a period with little activity, which was followed by renewed use. One example is the Japanese Studies blog, which experienced a brief hiatus while the blog author found the appropriate balance between use of the wiki and the blog. She ended up using the blog to highlight timely information and to rely on the libraries' wiki for subject-driven information. Another set of blogs was created for a particular purpose, such as the Staff Move blog, and was no longer used once the objective was achieved; in this case all of the staff were successfully moved to their temporary locations. Finally, the majority of blogs continue to be used consistently since their introduction. This includes the Library News blog that delivers dynamic information to the News section of the libraries' home page and the Read Aloud blog that announces the schedule of readers and delivers the recordings of the continuing program.

The libraries' blogs so far serve generally as one-way communication tools with the authors sending updates to their readers and relying on the features of the blogs, including RSS, to help broaden the spread of the message. However one-third of the blogs offered through the Libraries' Web site at the time of this writing had enabled the comments feature; allowing comments is a decision left to the author of the blog. More than one of these blogs showed recent comments in which the blog author conversed with a reader of the blog. Conversations such as this demonstrate the potential for two-way communication that blogs and other Web 2.0 tools offer.

WIKI

In preparation for the renovation, the libraries installed Media-Wiki (http://www.mediawiki.org) for the use of faculty, staff, and the community. A working group met several times to discuss the branding and organizational schemes to be applied to the wiki before its release to the public, as well as to discuss implementation and training details. The group also decided to require an account for anyone to make changes to the wiki; however, requesting an account is a simple process and is not restricted to those affiliated with the university. After setting up an account, one is able to make changes to any portion of the wiki. The Ohio State University Libraries wiki (http://library.osu.edu/wikis) is used for many purposes, including details about the renovation. The information posted to the wiki includes updates about the status of various stages of the move, details about the new facility, parking updates, bus service, and other information for faculty and staff. There is a section to house lesson plans and learning objects used in the library instruction portion of the freshman English course, and one library staff person created a page in the wiki for recording memories of the Thompson Library. Marketing the wiki to the various constituents is still in process, with the hopes of increasing use and interest over time.

The wiki serves as a complement to some blogs. In two cases, the Staff Move blog and the Japanese Studies blog, the authors of those blogs found that the wiki worked better than the blog for arranging information by subject or category. In the case of the Staff Move blog, the content items were added to both locations except for very timely announcements that were delivered only on the blog. The wiki became the reference source and the blog the breaking news source. The Japanese Studies librarian uses the blog also for timely announcements, but she relies solely upon the wiki to share less time-sensitive information about the collections. She also finds that the wiki is better for collaborative content creation with the graduate students in her area as well as colleagues in other institutions.

PODCASTS

Podcasts at OSU Libraries began in the winter of 2006 with a class attended by a librarian who coordinates outreach for the OSU Libraries. She left the class excited by the concept and ready to put it into action. The first audio file hosted on the library Web site was not really a podcast because it wasn't syndicated, but it was an excellent start. It consisted of an audio tour of the Thompson Library. The next attempt, the Audio Library News (http://streaming1.osu.edu/ramgen/media2/library06/news.rm), was a true podcast, regularly updated and utilizing RSS (Really Simple Syndication) (http://streaming.osu.edu/podcast/library08/podcast.xml). The Coordinator of Outreach oversees the recording of the news and delivers the file to a division of the campus IT department that offers streaming services. They host both the streaming Real Audio file and the RSS. A new edition of Audio Library News is released every few weeks. A link to the current file and the RSS feed appear on the OSU Libraries home page. The audio file lasts about five minutes and shares timely information about events at the Libraries for the upcoming weeks and updates on the renovation service changes. The podcast released right after the Thompson Library closing shared details about other libraries on Main campus including their hours and any new services they offered that formerly were housed at the Thompson Library. The podcast also included details about the opening of the Ackerman Library. This format provides yet another way to get the word out about library services on campus.

Several months after the Libraries began producing the podcast, Apple approached Ohio State about creating an iTunesU site. The Library Audio News, as one of the first and continuing podcasts on campus, was featured prominently on the page. Inclusion here will only increase exposure to the Libraries' content, hopefully reaching more patrons and further improving communication between the libraries and the campus community.

CARMEN

The course management system, Carmen, serves a key role in the academic life of students. Since more than 2,500 instructors use Carmen for at least one course, most students use the system at some point in their careers at Ohio State. OSU uses the Desire2Learn course management software. After hearing about the success Rochester Institute of Technology had in integrating library content into their Desire2Learn system (Mee 2006), OSU Libraries and the Technology Enhanced Learning and Research (TELR) Division of the University Office of Information Technology, the organization on campus responsible for the Carmen system, created a group to explore ways to integrate library content into Carmen. This collaboration helps both groups work toward their goals; the libraries want to get library content into the hands of students and faculty and TELR wants to make the course management system a compelling choice for faculty. Meredith Farkas (2007) notes that the purpose of using Web 2.0 tools is to reach out to patrons in the online world in their places, including course management systems. This is further supported by research summarized by Piña (2007) that students place high value on features of a content management system that make their lives easier and Holobar (2006, p. 70) who wrote ''As the online learning environment has become simultaneously more integrated and compartmentalized, simply making resources available on the library Web sites isn't enough.'' Placing library content into Carmen is expected to increase usage of library resources by students because it will be more convenient.

After exploring several options, the group decided to focus initially on getting electronic reserves into Carmen. Due to the renovation of the Thompson Library, a primary location for physical reserves on campus was no longer available. As a result, OSU Libraries decided to accept only books or other very large pieces for physical reserves and all other items, such as articles, would move to electronic reserves. Therefore, the number of electronic reserves was expected to rise.

Other academic libraries report moving their electronic reserves into the course management system; each chose different methods based on the systems and processes available to them but all shared the same goal–to provide students with convenient access to materials required for their courses and to control access to students in a particular course to meet copyright requirements (Drew and Flanagan 2007; Cheung and Patrick 2007; Holobar 2006). Faculty submitted their electronic reserve requests with full bibliographic information via a Web form or a preformatted Excel spreadsheet. The electronic reserve requests first went to the Serials & Electronic Resources Department to determine if the item was available through the databases or e-journals to which the Libraries subscribe. If so, the link information was passed on to the Electronic Reserves staff. If an item was not available through a subscription, then the Electronic Reserves staff obtained a physical copy to scan.

Within the course management system, the links for both items available through a subscription and those scanned look the same, but the process on the back end was different to meet the requirements of copyright regulations. When processing the items for which the libraries already owned the rights through a subscription, the Electronic Reserves staff added Web links including the database authentication information to the Carmen course shell. Processing of the scanned items required further steps. First, the scanned files were added to a special Learning Object Repository (LOR) created specifically for this purpose within Carmen. Then links were added in the course shells to the files in the LOR.

The use of a special LOR is expected to provide the ability to control access to the files. This makes it easy for the Electronic Reserves staff to limit access to only those students in the course and to remove that access at the end of the quarter as required by copyright regulations. The LOR also permits the same file to be used by multiple class groups.

  The plan for the pilot was to add up to 50 items from a variety of courses to test the viability of using Carmen to deliver electronic reserves. The remaining electronic reserves would be added to the current system attached to the Libraries' catalog. Due to some unexpected problems with the Libraries' catalog, the current electronic reserves system was unavailable for long periods just before and during the beginning of fall quarter 2006. Therefore, most of the electronic reserves for fall ended up in Carmen. The pilot continued as originally planned into winter quarter successfully.

In spring quarter 2007, all electronic reserves were delivered via Carmen. Among the electronic reserves were several items formerly found in the physical closed reserves in the Thompson Library. Adding electronic reserves to Carmen achieves the goal of relocating the reserves formerly housed in the Thompson Library to a convenient location for students.

INSTANT MESSAGING

Instant Messaging (IM) is one of the simplest ways for a library to bring services to users. According to the 2007 Educause Center for Applied Research report, nearly sixty percent of 18–19 year-olds use IM daily. Especially with the largest library on campus closing, being readily available to students became more important. In the spirit of offering evolving services for users with evolving needs, faculty and staff at the libraries formed an Instant Messaging Interest Group to research the various IM clients and tools available for use in virtual reference and general use at the libraries. There are myriad options for choosing an IM client. Most clients are free and downloadable from the major free e-mail providers, including Yahoo, MSN, AOL, and Gmail. The IM Interest Group met several times to review features of the various clients and to make recommendations for staff use. The group downloaded several clients, obtained webcams, and experimented to determine which was the most appropriate for library services.

Considering the varying level of comfort with IM across library employees, the group provided a series of how-to sessions using Yahoo! Messenger. Later, Pidgin (http://www.pidgin.im) was added to all staff computers. Pidgin is a client that supports multiple

IM accounts, including those with Yahoo, MSN, and AOL. This aggregator approach offers the advantage of managing multiple accounts through a single sign-in and therefore being available for reference and patron requests from a variety of IM services.

The distance being created because of the renovation will require additional innovative methods of communication; using IM for staff correspondence and reference service is one way to address this need. At the time of this writing, the IM reference service has opened and is answering questions during regular hours. The service will be evaluated in the next year and will continue depending on the level of patron usage.

MOBILE CATALOG

The Libraries elected to implement a mobile version of the library catalog by purchasing an additional product to supplement the catalog software. This mobile version enables anyone to search, request, and renew items from their Internet-capable phone or Personal Digital Assistant (PDA). The mobile catalog is also linked to the University Web site for people with handheld devices, OSU Mobile (http://www.osu.edu/mobile/). In addition to the catalog, the Libraries plan to add a few key pages of library content to the Libraries' Web site in the same mobile format in the near future. The current set up of the Libraries' Web site requires that these pages be manually maintained so the initial group will be selective. This work is important because a mobile version of key Web pages should complement the mobile catalog. Offering mobile access is a way to bring library services closer to the user on a regular basis. Patrons no longer must have access to a computer but can simply perform searches, request items, and renew items from their handheld devices. The mobile catalog has eased service disruptions caused by the renovation by offering additional searching options in the very crowded libraries remaining open on Main Campus, where lines for catalog computers regularly occur. The mobile catalog also facilitates use of the Ackerman Library stacks, which can be a considerable distance from a catalog computer. With a mobile device, patrons and staff can search the catalog from within the stacks.

STAFF TRAINING AND INTERNAL COMMUNICATION

While training was not an initial goal, it quickly became clear that training on several of these tools was necessary. Voluntary, hands-on training was offered in a small classroom setting for the wiki and for IM reference. The wiki working group offered several examples and explanations of functionality, leaving at least an hour for hands-on practice using pages already set up in the wiki sandbox. Participants were encouraged to create practice pages and to practice formatting. The training feedback was positive, and participants were able to continue working on the pages they created after the workshop, keeping momentum and interest levels high. The IM reference training acted as an introduction to IM for many, and provided details for others on how to incorporate IM into their current reference work.

More recently, interest has emerged in a broader base of technological training for faculty and staff. In response, monthly training sessions on various Web 2.0 and social software tools are in the process of being scheduled. The sessions, loosely based on the ''Five Weeks to a Social Library'' curriculum (Farkas 2006b), will be open to all library faculty and staff and will cover several of the topics already covered in this paper, along with some additional informational sessions on other tools, including Flickr, Facebook, and SecondLife.

ONGOING USAGE

In the past year, up to the time of this writing, the tools discussed have had varying levels of success. The blogs have served a variety of purposes; some original blogs no longer exist while others continue to rank in the top of the list of blogs viewed. Overall the number of blogs offered by the libraries continues to increase with some blogs moving beyond the original one-way communication model to holding conversations with readers through the comments feature. There has been a major increase in the usage of the library wiki. There are now more than 100 registered users, and the main page has nearly 8,000 views. Many of the registered users are not affiliated with the library, indicating potential interest outside of internal communications. The original podcast offered by the libraries, the Library Audio News, continues to be produced and is now included in the University's iTunesU site, which is expected to increase the potential audience. Electronic Reserves on main campus are now offered exclusively through Carmen, the University course management system, and the regional campuses have inquired about how to move their electronic reserves to this system in order to make them more convenient for their students. IM service is now in place for both internal communication and for reference purposes. Although usage statistics are not available for the mobile catalog, anecdotal evidence exists saying that this is a service valuable to patrons.

Overall it can be generalized that usage had a sharp increase toward the beginning and has begun to level off or have slight increases over time. Usage has persisted with all of the tools, which bodes well for the future of these initiatives in the university setting.

CONCLUSION AND FUTURE QUESTIONS

Libraries face a changing environment; the Web is rapidly becoming the center of a new digital lifestyle where people are always connected to one another and the Internet through a variety of devices (Storey 2006). It is critical that libraries be part of the new digital environment, using Web 2.0 tools to interact with patrons as they expect. A big part of this is making the physical library a flexible space that is both comfortable and technologically current. Older buildings, such as the Thompson Library, must be renovated to create the desired flexible space. Renovations, while exciting and full of anticipation, are disruptive to current service. Libraries must remain connected to their patrons in as many ways as possible and the Web 2.0 tools addressed here can transform disruptions into connections between the library and the user.

Renovations also provide great opportunities for trying out new services and ways of delivering information. The status quo must adapt as the construction changes the physical library and the doors of experimentation are opened. The Web 2.0 environment offers many more tools for experimenting with technology than libraries had even a few years ago. Connecting with users is an ongoing challenge, especially in times of change. However, this change offers the chance to ask how libraries can better use technologies to maintain quality service to patrons in times of transition. As the OSU Libraries are learning with the current renovation of the Thompson Library, now is the time to try new ways to connect to patrons.

REFERENCES

Cheung, O. and S. Patrick. 2007. E-reserve in blackboard: Chalk it up to collaboration. *Journal of Interlibrary Loan, Document Delivery and Electronic Reserve*, *17*(3), 129–143.

Connor, E. (Ed.). 2005. *Planning, renovating, expanding, and constructing library facilities in hospitals, academic medical centers, and health organizations*. Binghamton, NY: Haworth Information Press.

De Rosa, C., J. Cantrell, D. Cellentani, J. Hawk, L. Jenkins, and A. Wilson. 2005. *Perceptions of libraries and information resources: A report to the OCLC membership*. Dublin, OH: OCLC.

Di Trolio, T., E. Nelson, and M. Ochoa. 2004. Gone FISHin: Maintaining good customer service and job satisfaction during times of change and transitions. *Journal of Access Services*, *2*(1), 3–10.

Donovan, M. 2005. New blog launched. *OSU Japanese collections blog*. Retrieved October 11, 2006, from http://libraryosu.edu/blogs/japanese/?p=2.

Drew, C. and P. Flanagan. 2007. Bypassing E-reserves with durable links to subscribed content: Efficient access and how to enable it. *Journal of Interlibrary Loan, Document Delivery & Electronic Reserve*, *17*(3), 117–127.

Farkas, M. 2006a. Introduction. *Library success: A best practices wiki*. Retrieved October 3, 2007, from http://www.libsuccess.org.

Farkas, M. 2006b. *5 weeks to a social library*. Retrieved August 31, 2007, from http://www.sociallibraries.com/.

Farkas, M. 2007. *Social software in libraries: Building collaboration, communication and community online*. Medford, NJ: Information Today, Inc.

Holobar, J. C. 2006. Electronic reserves and course management software: A collaborative model for large institutions. *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves*, *16*(4), 65–71.

Mee, S. and J. Jiras. 2006. *RIT D2L library integration project*. Retrieved October 3, 2007, from http://wally.rit.edu/desire2learn/.

Moreland, V. F., C. L. Robinson, and J. M. Stephens. 1993. Moving a library collection: Impact on staff morale. Journal of Academic Librarianship, *19*(1), 8–11.

O'Reilly, T. 2005. *Web 2.0: Compact definition?* Retrieved October 3, 2007, from http://radar.oreilly.com/archives/2005/10/web_20_compact_definition.html.

Piña, A. A. 2007. Course management systems: Overview and implications for libraries. *Library Hi Tech News*, *24*(5), 7–9.

Salaway, G. and J. Borreson Caruso. 2007. *The ECAR study of undergraduate students and information technology*, 2007 *(ID: ERS0706)*. Retrieved October 3, 2007, from http://connect.educause.edu/Library/ECAR/TheECARStudyofUndergradua/45075.

Science and Engineering Library of The Ohio State University Libraries. *Information about the science and engineering library*. Retrieved October 3, 2007, from http:// library.osu.edu/sites/sel/selinfo/sel-info.php.

Shill, H. B. and S. Tonner. 2003. Creating a better place: Physical improvements in academic libraries, 1995–2002. *College & Research Libraries*, *64*(6), 431–466.

Stephens, M. 2006a. Blogs (weblogs innovations). *Library Technology Reports*, *42*(4), 15–36.

Stephens, M. 2006b. Exploring web 2.0 and libraries. *Library Technology Reports*, *42*(4), 8–15.

Storey, T. 2006. *Web 2.0: Where will the next generation web take libraries?* Retrieved October 11, 2006, from http://www.oclc.org/nextspace/002/1.htm.

VanScoy, A. 2006. Page us: Combining the best of in-person and virtual reference service to meet in-library patron needs. *Internet Reference Services Quarterly*, *11*(2), 15–25.