Chapter 1

Introduction

While the purpose of this report is to give library managers the tools they need to encourage collaborative work both within and outside of their organizations, the report is also intended to make the case that social networking tools, when used efficiently by a library, are more of a boon to productivity than a drain on it. My hope is that by the time readers reach the end of the report, they will get not only tools that will help them in their library jobs, but also a sense of how social networking can be used creatively to expand or enhance library services. Most of this report will focus on the tools themselves and real-world examples of how they've been used, thus encouraging readers to experiment with these tools on their own.

Some information technology managers and administrators are blocking access to social networks like Facebook or MySpace or to social tools like blogs because of fears that their staff will spend too much time updating their profiles and commenting and not enough time working. In an article for the IT Pro website, Nicole Kobie reported on a survey that shows that 43 percent of employees have Facebook blocked at their organization. Her article, "Firms Blocking Facebook," gives details from the survey, conducted by the security firm Sophos, about how employers are limiting the use of social sites.[1]

The value of these tools to the organization, however, is that any time lost to "frivolous" pursuits can be balanced out by getting real work done rapidly using the very tools that make administrators so suspicious. Blogs are excellent communication tools in and of themselves, and part of this report will explain how they are being used to support work, from training to bug tracking, in libraries today. Social networks are useful not just because they provide tools that make collaboration easy (and cheap), but also because they are conducive to professional and personal networking at a much lower cost than the travel and accommodation expenses for a conference in a remote location.

There are, of course, expensive proprietary collaboration tools that can keep your staff inside a walled garden and reduce the amount of distraction that can come from using a social network, blog, lifestreaming application, or other Web 2.0 tool. However, many users feel that these tools also wall off the ability of library staff to work with other librarians in other organizations. With proprietary tools, all collaborators must agree in advance on a platform in order to work together. With Web 2.0 tools, the barrier to entry for cross-organization (or cross-state or cross-country) work becomes a matter of a few minutes as opposed to a few hundred (or thousand) dollars. The possibility that some staff members may spend a few minutes commenting on a photo or updating their Facebook status when they should be working seems somewhat trivial compared to the cost savings that come with the use of free software and websites for collaboration.

Evan Rosen's *Culture of Collaboration* discusses the issues of collaborative teams and organizations in great detail. One of the bits of advice he gives in his book is that the "tools that we use outside of work take hold in organizations more readily than those we never use in our personal lives."[2] According to Rosen, the tools that we have already made use of in our lives require a shorter leap to become part of our routine at work. Many library staff members already have accounts at some of the social sites that I will be discussing in this report. Administrators should make use of the expertise that those staff members

bring with them from their personal lives to get a huge jump-start in the quest for training and wider adoption of the technology.

In this report, readers will also find hard data and concrete proposals that will save money and time in just about any collaborative effort library staff might decide to undertake. Even if a given library is not presently engaged in collaborative work, the activities that staff members do on a day-to-day basis can be improved by using collaborative platforms like Google Docs, a wiki, or an internal blog to facilitate communication.

Many of the services discussed in this report also have some sort of internal or private component. If administrators decide that Twitter would be a great way for staff members to keep each other updated on the progress of a project but don't want everyone in the world to view the messages, they could choose to either require all accounts used for that program be made private, or they could use an "enterprise" version of Twitter (such as Yammer) to keep all of the traffic within the library's private network. Most of the services mentioned in this report have the option of a downloadable and installable component that will allow a select group of users to use the service exclusively within the network.

Yammer
www.yammer.com

This report is not intended to be exhaustive, nor is it universal. Not all services will work for all libraries, and some of the tools described here may be more applicable in some situations than in others. The key point is that these tools have a large and growing list of applications that have been used effectively throughout the library world. The benefits of using Web 2.0 tools to collaborate are many and varied. If you work in a library, there is information here that can help your library run more efficiently.

Notes

1. Nicole Kobie, "Firms Blocking Facebook," Aug. 21, 2007, IT Pro, www.itpro.co.uk/123093/firms-blocking-facebook (accessed Feb. 26, 2009).
2. Evan Rosen, *The Culture of Collaboration* (San Francisco: Red Ape Publishing, 2007), 133.

Chapter 2

Collaboration

According to Evan Rosen, author of *The Culture Of Collaboration,* the process of collaboration can be defined as "working together to create value while sharing virtual or physical space."[1] The Oxford English Dictionary Online defines *collaboration* as "the process of working jointly on an activity or project."[2] Engaging in collaboration, then, requires only a couple of people and a plan to work on something of value.

The act of collaboration itself doesn't require any technology at all; collaboration can take place between two coworkers using paper and pens in an office or using instant messaging and a digital whiteboard online. Collaboration can easily occur between two or more people who have never met face-to-face. The act of collaborating does not need to be based on technology to be effective, and even technological solutions won't work if a culture of sharing and working together is not in place to begin with. Most of this report will focus on introducing new ways to collaborate by using technology—but it will not do any good if the team you are collaborating with is not prepared to share information and work together. A "culture of collaboration" must be in place in order to benefit from the information in this report.

If the staff at an organization is prepared to share information, work together on projects (and this sometimes means giving up personal credit for shared credit), and truly collaborate on projects together, the advice in this report will help to support those collaborative projects. Just throwing technology at a culture of individuals, however, will not change the way things work. To create a culture of collaboration, policies have to be in place so that collaborating is easy and desirable. Traditional organizations reward the individual; organizations that have a culture of collaboration reward the team. One can throw at anyone technology that makes working together in teams possible, but supporting that technology with policies and top-down encouragement is important. Creating a culture that is truly collaborative is a bit beyond the scope of this report, but the resources section can help to ensure that the soft skills of collaboration are in place before rolling out the tools.

Synchronous vs. Asynchronous Work

Collaboration can happen with everyone working together at the same time—synchronous collaboration—or in stages, with some people working at different times—asynchronous collaboration. Technology helps with asynchronous work—forums and message boards are great ways to communicate when people are working at different times of the day, due to either time zone or scheduling issues. Tools like instant messaging, Web conferencing, and whiteboard sharing are more appropriate for synchronous work, as they allow fast communication for participants in the same virtual location. Time zones and work schedules will dictate whether a team relies mostly on synchronous or asynchronous tools to use in a project. While most of the tools in this report have the ability to support both types of communication, some are better suited for one type of collaboration than the other. This report will help to clarify which tools work best for a given type of collaboration.

Platforms

Before the work can start and the collaboration can begin, all participants must agree to work on the same technological platform—in other words, all must be using the same tool in order to collaborate. If some people are posting

information and images to Facebook and others are keeping all of their images in Flickr, there will be issues when it comes time to put all the data together. Ensuring that everyone is on the same page and is using the same tool (or tools) is actually one of the trickiest parts of technological collaboration solutions. In the past, an organization using collaborative tools would purchase something that would work for it, and it was usually unable to work with another organization that used a different tool. While to some extent, this is still an issue with 2.0-style collaboration, the fact that use of these technologies is often free or low-cost gives libraries a degree of flexibility that was unimaginable in previous decades. The cost of the tools described in this report is in time—the time it takes to decide on a platform that everyone feels comfortable with and the time if takes for employees to become proficient with the technology.

The issue of cost-effectiveness in employee work hours illustrates one way that these tools truly are a breakthrough for libraries. So many people have a Facebook or Flickr account already in their personal lives that, in many cases, they don't have to learn a whole new skill set to be able to use these tools to collaborate at work. According to Facebook, there are more than 150 million active users as of the beginning of 2009[3]—and that number gets bigger every day. Wikipedia—one of the better-known wikis in use today—claims 153,000 active users in a single thirty-day period.[4] When you combine numbers like these with the ever-increasing tech-savviness of modern librarians, it is quite likely that librarians on a given collaborative team will already be familiar with the tools they are being asked to use. With these tools, the cost of training in employee hours is likely to be significantly less than it has been in previous years.

A report released in early 2009 by Compass Intelligence details the number of business users that are regularly using social networks.[5] Of more than 10,000 working Americans surveyed in late 2008, nearly 60 percent said that they were active on a social networking site. Almost 35 percent of the respondents said that they were registered with Facebook, the most popular site according to the research. The conclusion of the report discusses the fact that, for the most part, the business world is not yet taking advantage of these tools for marketing or sales. This situation is already starting to change: commercial use of social networking is likely to continue as companies decide to take advantage of tools that their employees are already using (see figure 1).

The good news for staff members who do not already have an account is that the learning curve for most of these tools is shallow. Millions of people have already learned how to use most of the tools discussed in this report with little or no assistance. Since these tools are designed to be used by the general public, and have been in great numbers, they have been tested and refined to make their user interfaces as easy to learn as possible. The chances that a librarian in a given organization has already used one of these tools are very good. If this is the case, that librarian can serve as the library's knowledge base and help to bring new users along quickly without the library resorting to requests for outside help.

In chapter 6, readers will find a conceptual discussion describing the inner workings of these tools and their uses as collaborative platforms. Each tool has its strengths and weaknesses and may be more appropriate for one type of collaboration than for another. This information should help librarians evaluate the tools that their staff are already using for collaborative purposes, thus making the process of picking a common platform much easier. Please note that while many tools will work for the same kind of job, the circumstances of a particular organization will be the key factor in determining which kind of site or tool to use for a given project. Familiarity with the site, as well as its functionality, will likely play the crucial role in deciding which social networking site (or sites) to use for collaborative work.

Figure 1
There are hundreds of platforms for online collaboration, and new ones are popping up every day. [Licensed under Creative Commons Attribution Non-Commercial ShareAlike 2.0 Germany / Ludwig Gatzke / http://flickr.com/photos/stabilo-boss/]

Notes

1. Evan Rosen, *The Culture of Collaboration* (San Francisco: Red Ape Publishing, 2007), 9.
2. Oxford English Dictionary Online, www.oed.com (accessed Nov. 1, 2008).
3. "Statistics," Facebook, www.facebook.com/press/info.php?statistics (accessed March 17, 2009).
4. "Statistics," Wikipedia, http://en.wikipedia.org/wiki/Special:Statistics (accessed March 17, 2009).
5. Amy Cravens, "Social Science: The Business Side of Social Networking," Compass Intelligence, Jan. 27, 2009, http://blog.compassintelligence.com, http://blog.compassintelligence.com/post/2009/01/27/Social-Science-The-Business-Side-of-Social-Networking.aspx (accessed March 17, 2009).

Chapter 3

Cloud Computing

Mike Gunderloy, a contributor to the Web Worker Daily blog and a frequent author on tech topics, made an interesting analogy in a post on his blog on July 30, 2008.[1] He compared the way we handle information to the way we handle money: either we can keep it all on our personal computers, subject to risk of hard-drive failures or natural disasters, or we can "deposit" it in the bank of servers that exist in the network—sometimes called the "cloud"—and just pull it out when we need it, much like using an ATM.

Web Worker Daily blog
http://webworkerdaily.com

Defining Cloud Computing

The cloud, in this case, is the massive network of storage devices (servers) that exist somewhere "out there" on the Internet. Wikipedia defines *cloud computing* as an "Internet-based ('cloud') development and use of computer technology ('computing')."[2] For this report, we will consider the cloud to be the network of servers that run the services (Facebook, Flickr, etc.) that can be used as collaborative platforms. When we use this cloud, we are uploading documents, data, images, and other artifacts of our work to a server or server farm that is under someone else's control. A server farm is a number of servers that are linked together to provide more storage and more computing power than a single server could alone (see figure 2). Often, in the Web 2.0 world, these services are free, but just as often there are versions that offer more storage, more features, or better accessibility for a price. This chapter will discuss some of the benefits that we can realize from our use of cloud computing and the pitfalls of using other organizations' servers to hold data.

Benefits of Cloud Computing

There are many benefits for those who use cloud computing. The ability to outsource much of the day-to-day technical duties—the commodity part of any job—frees employees to concentrate on other aspects of their work that could otherwise have been neglected. If an organization doesn't have to worry about doing backups, keeping hackers out of its data, or providing more virtual storage space, it can worry about the bigger picture and the more mission-focused projects that it might be working on. It is important to note that choosing cloud computing assumes a high degree of trust between the organization and its cloud computing provider, as the provider will be trusted with sensitive information and security details.

A cloud computing provider can be any company that runs many servers that are available for use either directly or as a part of an application like Facebook, Flickr, or Ning. Direct service providers give companies access to computing resources "in the cloud" that are scalable—many companies use services such as Amazon's Simple Storage Service (S3) to provide extra bandwidth and storage space that is reliable and can be expanded on a

moment's notice. The type of cloud computing provider I will be referring to in this report, however, offers more than just computing resources. Facebook, Flickr, and Ning are all providers of applications that make use of the cloud and can be considered cloud computing providers. When you post a message to Facebook, upload a picture to Flickr, or add a document to a Ning group, you are taking advantage of a cloud computing provider's resources.

Amazon S3
http://aws.amazon.com/s3

Chris Brogan, a popular social media blogger, provided a great example of cloud computing when he wrote a post about what happened when his main personal computer died.[3] Surprisingly, the event actually turned out to be much less trouble than he anticipated. Most of his daily computing life was conducted on various websites instead of on his personal computer—his life was "in the clouds." Because he used cloud-based applications like Gmail, Google Calendar, Evernote, Flickr, Google Docs, and Delicious (formerly del.icio.us) for his data, none of it was lost when his computer refused to boot up. Without even realizing it, he had started to make the move toward cloud computing.

Even those who prefer to work on their own computers can still take advantage of the cloud by using a service called Google Gears. Gears is a browser extension that works with Firefox and Internet Explorer to provide a connection between the cloud and your computer. Using Gears with a tool like Google Docs allows users to download the document they are working on to their personal computer for use when there might not be an Internet connection. Google's Documents products, which include spreadsheets, also work with Gears, as does the Zoho Office suite and other cloud-based services that are available on the Internet. Users interested in this approach can check the feature list of any service they use to see if it is compatible with Google Gears.

Google Gears
http://gears.google.com

For our purposes, the main benefit of cloud computing is the fact that all of the data that is being used, created, and referenced is kept "in the cloud." It is available from any computer and by any person who has the proper credentials—whether that is a password or just the URL of the data. While cloud computing comes in handy for backing up personal data, as Chris Brogan discovered, it is also very handy for storing group data and team documents.

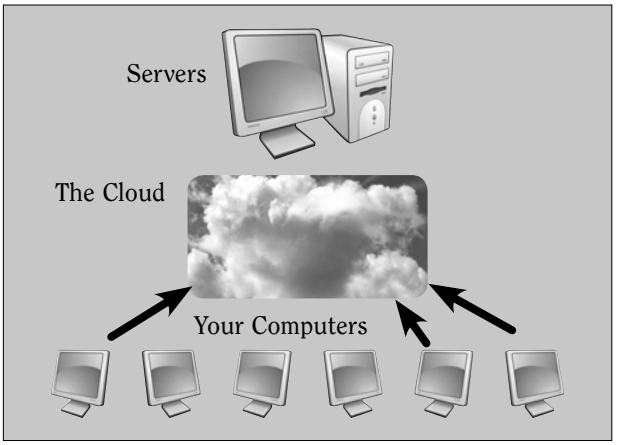

Figure 2
Basic cloud computing structure.

Problems with Cloud Computing

The previous section alluded briefly to potential security risks that come with using cloud computing. The potential for security breaches does exist, so it is extremely important that the library trust the system it is using and those administering use of that system to mitigate these risks.

While using the cloud to perform backups of important data is a good idea, it is also a good idea to use a personal computer or hard drive to perform backups of data kept in the cloud. If the data is lost or hacked and changed, a good copy will still be available. This practice eliminates the potential for damage that could be caused by either the loss of data on the service or a loss of network connection on either end of the link. In the summer of 2008, the Kevin Pipe website posted a roundup of outages or connection problems with cloud-based services.[4] The post included a number of examples of data that was not accessible, potentially at the moment when people needed it most. Pipe asked his readers this question: "Do you trust the cloud?"

When working with data or documents that an entire group can access and change, it is important to keep a close eye on versions of documents that are in the cloud, on individual computers, and elsewhere. This is where the Google Gears service comes in very handy—users can "back up" the cloud, just like you back up your personal computer, by using that browser extension. This will help to keep the panic from setting in when a service becomes unavailable or suddenly goes black—backups on a personal

computer will be available for staff, who can then work from those documents until the service comes back up or the organization decides to find a new home on the cloud for its data.

Terms of Service and Legal Issues: Who Owns Your Data?

The emergence of cloud computing has set off a debate over data ownership. Once data is uploaded to the cloud, who owns it? Does that data belong to the person who created it, or did that person give up ownership by uploading it? Data ownership is an issue any library must consider before making the decision to upload to a public server. Sensitive information like budget data, internal memos, or documents concerning major organizational decisions should never be uploaded to a public server (unless the library has a reason for wanting them to be public). On the other hand, for many collaborative projects, there isn't "ownership" in the traditional sense. For more open projects like these, the collaborative benefits of cloud computing are likely to outweigh any drawbacks.

Before uploading, it is important to check both the terms of service document (ToS) and legal statements of the service being used. Services like Google have a clear and easy-to-find ToS, a link to which can be found at the bottom of every page in the Google Docs help site. While the ToS for other services may not be this easy to locate, any reputable service should have a ToS that is accessible through its webpage or help documentation. A library administrator (or a lawyer if your library is big enough to have one) should read through the entire document and be sure that users understand how the service can use uploaded data and what steps it takes to protect that data. If the organization cannot find a public service that fits its data policy needs, downloading and installing one of the internal groupware suites that are discussed in chapter 7 would be a suitable alternative.

Google ToS
www.google.com/accounts/TOS

For information on specific terms of service for the services and applications that are profiled in this report, check the end of each service's section in chapter 6, which includes a small summary of the ToS for each tool.

Notes

1. Mike Gunderloy, "Is Your Information under the Mattress or in the ATM?" Web Worker Daily, July 30, 2008, http://webworkerdaily.com/2008/07/30/information-under-mattress-or-in-atm (accessed March 17, 2009).
2. "Cloud Computing," Wikipedia, http://en.wikipedia.org/wiki/Cloud_computing (accessed March 17, 2009).
3. Chris Brogan, "Life In The Clouds," Chris Brogan: Community and Social Media, July 31, 2008, www.chrisbrogan.com/life-in-the-clouds (accessed March 17, 2009).
4. "Do You Trust the Cloud? [Ask the Readers]," The Kevin Pipe, Aug. 12, 2008, http://thekevinpipe.com/2008/08/12/do-you-trust-the-cloud-ask-the-readers (accessed March 17, 2009).

Chapter 4

A Cloud Computing Case Study

Library Society of the World

As an example of a modern and collaborative venture, the LSW (Library Society of the World) is almost perfect (see figure 3). It's a "dis-organization" (as opposed to an organization, of course) that was born from a discussion on Twitter and has developed by using just about every Web 2.0 tool available in order to communicate and collaborate. I sent the "dis-organizer" of the group—the person who actually set up the accounts in the 2.0 tools—some questions (via e-mail on September 2, 2008) about the LSW. Joshua M. Neff, a Web content developer for the Johnson County Library in Kansas, created the logo and the wiki for the LSW. He is probably the closest thing to a leader that this loosely organized group has.

Johnson County Library website
www.jocolibrary.org

Library Society of the World website
http://thelsw.org

I asked him to describe just what the LSW does and how it is organized. His response was

> The Library Society of the World is an anarchic "dis-organization" (in the sense that there are no leaders, elected or otherwise) of library professionals and library fans. Its members provide professional and personal support to each other (and to any nonmembers in need of and willing to receive professional and/or personal support). It also functions as an adhocracy, in that when things need to be done, the people most qualified and interested voluntarily coordinate with each other to get it done.

The LSW is, in every sense, a collaborative organization. The LSW started in the spring of 2007. A group of librarians were discussing their likes and dislikes—what frustrated and discouraged them—about the American Library Association (ALA). One of Josh's chief complaints about the ALA was the cost of membership, since his organization was unable to cover that expense. Someone suggested that they could start their own library association without requiring membership dues by using free social Web tools. Josh then told me that he believed a dare ("maybe even quickly escalating to a triple-dog dare") was issued, and he took the challenge. He came up with the name, a logo, and a free wiki on the PBwiki service to host the LSW materials, then posted a link to the wiki on Twitter and gave the password to whomever asked for it. The wiki was open to anyone willing to contribute, which is exactly what people did. Josh explained that some of the content was serious, most of it was humorous, but all of it was full of "enthusiasm and heartfelt sentiment."

So, the LSW started off as a conversation on Twitter and a simple, free wiki site, but it has now expanded to much more than that. According to Josh, about a month or so after the wiki was set up, Meebo announced the launch of chat rooms. He created one for the LSW, as well as a Facebook fan page. Others have pitched in as well—Chadwick Seagraves created a LinkedIn group,

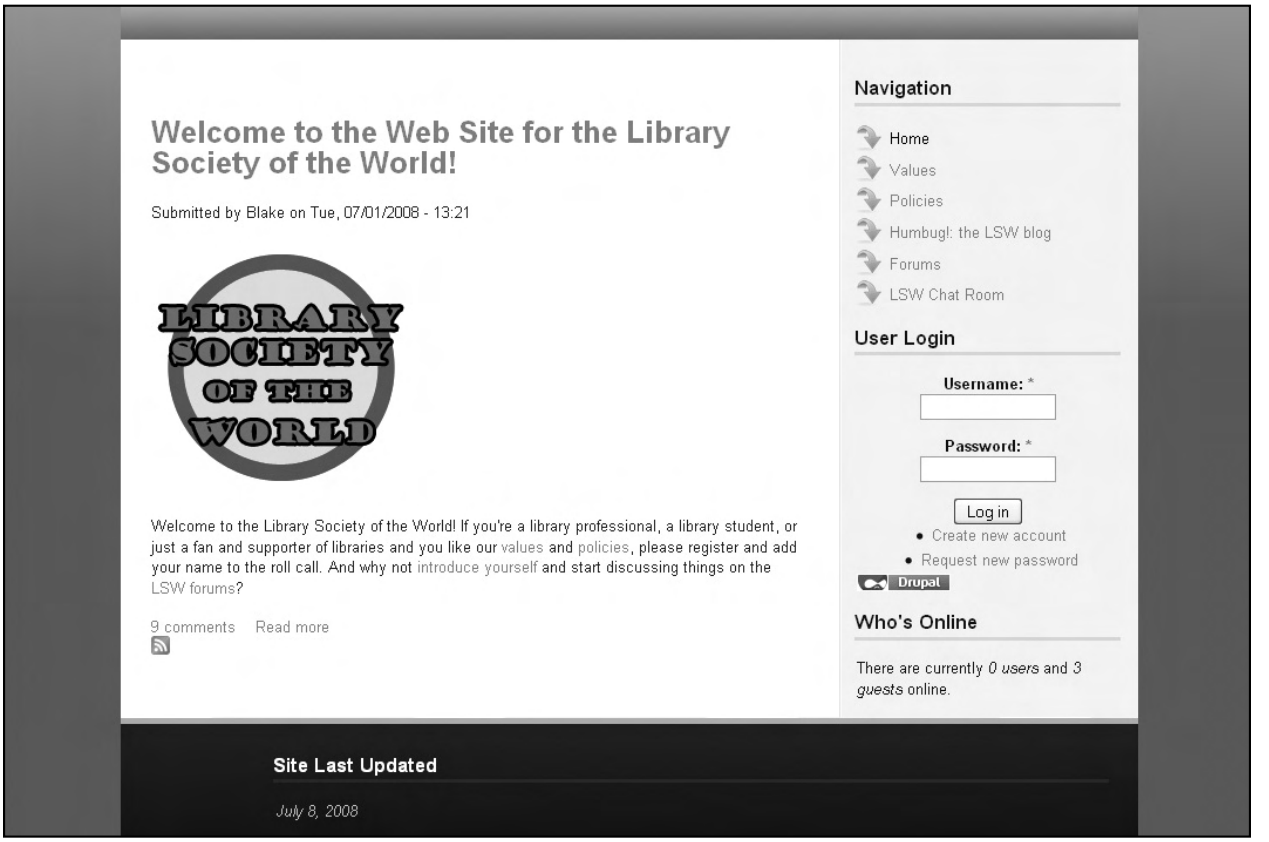

Figure 3
The webpage for the Library Society of the World.

Laura Harris started a LibraryThing group, and Courtney Stephens began a Last.fm group. Joshua has fairly recently started up an "official" website for the group that runs on the Drupal open source content management system and includes a blog and discussion forums. With all of these channels in use, Josh believes that the Meebo room still gets the most use. The discussion forums and blog on the website are getting some use, but the LSW-related conversations on Twitter and FriendFeed are still going strong and are thus far beating out the traffic on the website.

Meebo
www.meebo.com

Drupal
www.drupal.org

When Josh told me about the new LSW blog that was hosted at the LSW website, he explained that he saw it as a sort of library-themed Boing Boing. It's still fairly new, but he'd like to see it "grow into a blog that's updated several times a week (at least), promoting FOSS (Free, Open Source Software) in libraries, library camps and unconferences, library smart mobs, populist technology and other 'libpunk' things." In addition to the blog, however, LSW tools have also been used to collaborate on library-related projects. Josh explained that he, Steve Lawson, and Laura Harris presented on the LSW for Computers in Libraries 2008 and used the LSW wiki and other social Web tools to write out the proposal and plan the presentation. These three librarians had never met one another in person until they arrived at the conference. All planning and creating for the presentation was done via Web 2.0 tools that the LSW and its members were already using.

Boing Boing
www.boingboing.com

The LSW is still going strong, with plans for an online tech camp or unconference–perhaps something like the successful Five Weeks to a Social Library program that was introduced in 2007–in the works. If programs like this come out of the LSW and are successful, it will be because the members of that group used the wiki,

Facebook page, LinkedIn group, Meebo chat room, and blog/discussion boards on their website to collaborate on it and make it happen.

Five Weeks to a Social Library
www.sociallibraries.com/course

As a side note, "membership," as it were, in the LSW is not incompatible with membership in the "official" ALA organization. I am a member of both organizations and met many people at the ALA conference in 2008 who were proud members of both (we even had ribbons to wear on our ALA conference badges showing our membership in the LSW). The LSW considers itself to be an a choice in addition to, not a replacement for, the official ALA organization.

Chapter 5

Collaboration 2.0

Now we can put all of the information from the last three chapters together to form a picture of what collaboration 2.0 is all about. With the concepts of collaboration from chapter 2 and the idea of cloud computing from chapter 3, we can examine the specifics of what collaboration in the cloud can do for an organization.

Distance

One of the benefits of collaborating using Web 2.0 services is that it does not matter where in the world a collaborator is working—everyone can access and contribute equally. Web 2.0 collaboration will work for a small group within a single organization or a large project team spread around the world. All of the data, the methods of creating project deliverables—reports, articles, presentations, pictures, or other media—in support of your project, and editing or collaborating tools are available twenty-four hours a day, seven days a week online. What Web 2.0 brings to the equation is the ability to use many different channels of communication in your collaborative efforts. Built-in instant messaging, bulletin boards, comment "walls," and other methods of communication are easy to install and use in most Web 2.0 services.

This communication infrastructure, along with the always-on nature of the Internet, removes the need for team members to be physically close to one another. It also removes the need for expensive long-distance conference calls and delivery services. All of the data is available to all of the team members all of the time, and people can work when and where it suits them. This ability to work without regard to distance means that project managers can choose the best possible members for a team, not just the ones who are physically closest.

Asynchronous Communication

Along with its ability to eliminate the constraints of distance between collaborators, Web 2.0 communication and collaboration channels can also reduce some of the problems associated with having collaborators in multiple time zones. Many of the services that will be profiled in this report include asynchronous communication channels. Asynchronous communication is defined by Dictionary.com as instances of communication that are "not occurring at the same time."[1]

According to the Wikipedia entry on collaborative editing, "Such asynchronous (non-simultaneous) contributions are very efficient in time, as group members need not assemble in order to work together."[2] The important part of that explanation is the fact that asynchronous communication is nonsimultaneous. It happens at a time that is convenient to the members of the groups as individuals.

Prominent examples of asynchronous communication channels include Facebook's "Wall" feature, which allows people to post information for others to read later (see figure 4), or Ning's message boards, or even a decidedly Web 1.0 tool—e-mail. There is a feature in the Delicious bookmarking service that allows users to send a link to someone in their network. This is another example of asynchronous communication—that link will be available whenever your teammate is ready to take a look at it. Blog

posts and comments can also be considered asynchronous communication—anything that allows people to read and reflect on the information before acting on or responding to it works as an asynchronous communication channel.

The library staff at California State University at Fullerton has created a wiki that they are using to track and manage their implementation of the Verse e-resource management system. The wiki is an excellent example of how collaborative tools allow a project to run smoothly with collaborators communicating asynchronously. It gives people a place to store information, comments, and concerns that are raised during the implementation procedure. Heather Tunender, the electronic resources librarian at the California State University, created the wiki because she had noticed that some staff members were using digital files to keep track of the process, but that these files were not necessarily available to everyone who might need them. By encouraging staff to use the wiki, all of the documents are now available whenever they are needed and can be accessed, edited, commented on, and discussed without concern as to when the material was created or whether the creator is online or available to discuss the issue at that time.

Figure 4
The Facebook Wall—an excellent example of online asynchronous communication.

Synchronous Communication

Synchronous is defined by Dictionary.com as "occurring at the same time . . . simultaneous."[3] Synchronous communication channels are those that allow instantaneous communication between two or more people, like chat rooms, instant messaging, and phone conversations. These channels are most effective when users are in the same or close time zones and are working at the same time. Instant messaging can be through a dedicated IM client like Meebo or through a built-in service in another tool like Facebook's recently released IM client. While most IM chats can be archived and saved, the chat is most effective when at least a couple of people are there to share information and ideas in real time. Unlike some of the hybrid tools like Twitter or FriendFeed, where the conversation can either be instantaneous or delayed depending on who is available, IM requires a set time, a set location (or IM client), and a commitment to discussing the project. With Twitter, you can post a question that can be answered within five seconds or five days—all posts on Twitter are archived so that people can find them later. Twitter assumes that conversations are happening real time, but that is not required.

Meebo
www.meebo.com

Jean Hewlett of the University of San Francisco and J. J. Jacobson of Jstor are currently putting synchronous communication to good use in their planning of workshops for the virtual world Second Life. Phone meeting are arranged via Skype, a Voice over Internet Protocol (VoIP) voice-chatting application, and the collaborators use a Google Docs document as a real-time whiteboard that both of them can edit while they are talking via Skype (figure 5). In this case, to work effectively, they both have to be present on the Skype call and in the Google Docs application at the same time (though of course, they can be half a world away from one another in actual physical location).

Distributed Computing

Distributed computing is another term that is used almost interchangeably with *cloud computing.* Wikipedia describes the concept: "In distributed computing a program is split up into parts that run simultaneously on multiple computers communicating over a network."[4] This program can be something like the SETI search for extraterrestrials with the SETI@home project or a Google

Docs document that is running on several different client computers as a team works collaboratively on creating and editing the content. The distribution of the work—in the case of the Google Docs document, the writing or editing of content—among team members who may be both physically separated and working on the document at completely different times makes collaboration 2.0 much easier for teams than it was with previous collaboration platforms. Pretty much any application that is browser-based and uses at least one central server to hold the information can be distributed computing—including Flickr, Facebook, wikis, or online office suites.

Figure 5
Skype, a Voice over Internet Protocol (VoIP) application that allows voice communication in real time.

SETI@home
http://setiathome.berkeley.edu

Benefits

Putting all of this together—the ability to work together at a distance, the benefits of asynchronous communication and distributed computing provided by applications in the cloud—gives an organization the ability to work together without regard for physical distance or time zone issues. The Web 2.0 services that are profiled in the next chapter give users the ability to store, create, or edit documents "in the cloud," and all of them offer multiple communication channels that team members can use to keep in touch during the collaborative process.

Notes

1. "Asynchronous," Dictionary.com, *Dictionary.com Unabridged (v 1.1)*, Random House, http://dictionary.reference.com/browse/Asynchronous (accessed March 17, 2009).
2. "Collaborative Editing," Wikipedia, http://en.wikipedia.org/wiki/Collaborative_editing (accessed Nov. 22, 2008).
3. "Synchronous," Dictionary.com, *Dictionary.com Unabridged (v 1.1)*, Random House, http://dictionary.reference.com/browse/synchronous (accessed March 17, 2009).
4. "Distributed Computing," Wikipedia, http://en.wikipedia.org/wiki/Distributed_Computing (accessed Nov. 22, 2008).

Chapter 6

Collaboration Tools, 2.0 Style

This chapter describes a number of tools that facilitate collaboration. Though many of these tools were not designed specifically for collaborative work in a library setting, users have creatively adapted them for that and a wide variety of other uses. This is not an exhaustive list—there are dozens of platforms with varying popularity available online, and new tools continue to emerge every day.

Calendars

Shared social calendars are single-purpose tools that can be used by groups to do many different things. They differ from regular calendars in that they are designed to be used by more than one person to keep a schedule. This makes them ideal for group use on a project. Many of the calendars that people already use to keep their schedules under control are social, though in many cases users might not even realize it. This situation solves, at least in part, the platform problem mentioned earlier. If people are already using a common calendar provider, then choosing what service to use to mark due dates, project milestones, or team meetings is pretty easy.

There are many social calendars out there to choose from, and many of them support importing data from another calendar service to help with the platform issue. Deciding on the particular calendar a given group wants to use will generally be a matter of deciding on which calendar service is used by the most people or is familiar to the most people. The eConsultant Web 2.0 directory contains a list of the top social calendar sites on its site.[1] This is a good resource for any group that is trying to determine which platform to use in order to share scheduling information.

A good calendar solution for a group will have a number of specific features that make it easy to share and reuse the data. One important feature for collaborative use is a data feed. RSS (or XML) data feeds allow you to put your calendar data into your feed reader and get notifications of upcoming dates and events. Because RSS is an XML standard, it is a prime candidate for data reuse—you can embed an RSS feed into a webpage or repurpose the data in a number of different ways. Another feature that is handy is support for the iCalendar (or iCal) standard (see figure 6). This standard, according to Wikipedia, enables the sending or receiving of calendar data through e-mail. You can send an e-mail request for people to attend a meeting at a particular time and, when the prospective attendees respond, the data goes directly into the calendar.[2] It also allows for publishing free/busy information about a person's schedule, which helps make scheduling meetings easier; collaborators can easily identify mutual periods of availability. This, of course, requires that the calendar be kept up-to-date. A social calendar should also give users ability to share a calendar easily with a group, the ability to export data easily, and some sort of easy reminder function, such as SMS or text message reminders.

One of the top sites on eConsultant's list is 30 Boxes. It has RSS and iCal feeds, the ability to share a calendar with a group, easy exporting, and SMS reminders. It also does quite a bit more, like keep track of data entered in other calendars that support the iCal standard. If a group is using a number of different social calendars, all of which put out data in iCal, users can combine all of those calendars into a single calendar at 30 Boxes. All of these features give project teams the ability to create calendars that work for them—team members can maintain their own personal calendars and just provide data, or everyone can use a 30 Boxes calendar and share their

Figure 6
Google provides support for both XML and iCal.

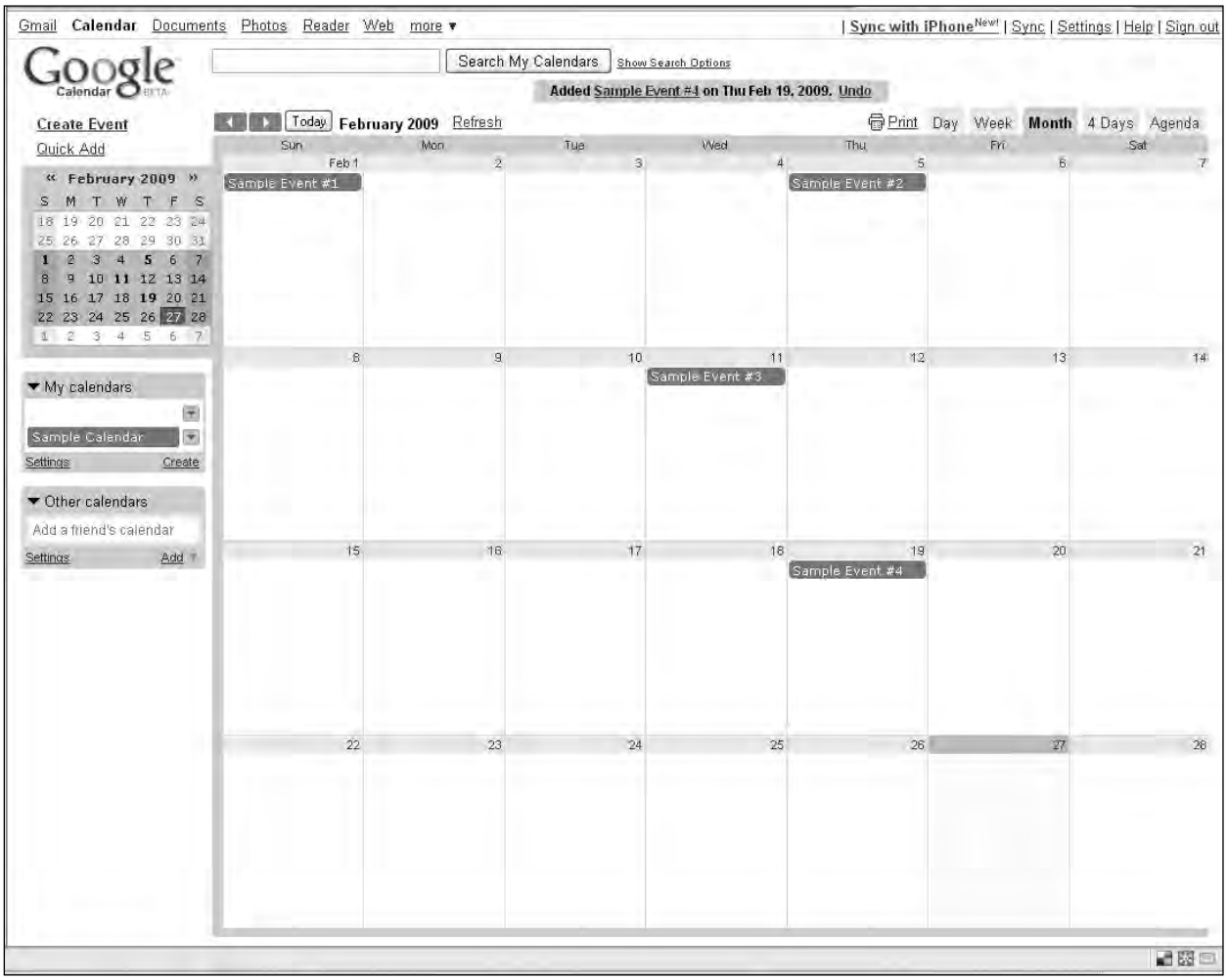

Figure 7
A Google calendar.

calendars with each other. Either way, this is a platform that can give a team easy access to due dates, milestones, common free times for meetings, and more.

30 Boxes
http://30boxes.com

30 Boxes ToS
30boxes.com/terms

The terms of service statement (ToS) for 30 Boxes can be found on the site. The short version of that long document is that the 30 Boxes service requires that users be responsible for their usernames and passwords and, accordingly, responsible for any content posted under their accounts. The ToS includes a list of prohibited activities (hacking into other accounts, violating spam laws, etc.), and it makes clear that each user is solely responsible for the content he or she posts. The service does, however, reserve the right to reuse content, but only for the purpose for which it was submitted in the first place. Finally, 30 Boxes declares that it is not to be held responsible for any loss of data that may happen while using the service. This is a pretty standard agreement for a free service that is hosted on the Web.

Like 30 Boxes, Google's online calendar service (see figure 7) includes all of the features listed above. Because of the popularity of the Google application suite, many people already have a Google Calendar available to them, even if they are not yet using it. Google offers users the ability to have multiple calendars on a single account and to share those calendars independently. The team leader can create a calendar in his or her personal account, share it with teammates, and not risk giving out the "keys" to a personal calendar that might also be on that account. Like 30 Boxes, Google Calendar supports embeddable calendars—displays that can be put, with just a line or two of code, into a team webpage and used to keep team members aware of upcoming dates.

Google Calendar Tour
www.google.com/intl/en/googlecalendar/tour.html

Google Calendar's ToS is very similar to the one at 30 Boxes and is standard for all Google applications, including Google Docs and Google Groups. It also requires users to keep their passwords safe—users are solely responsible for any content uploaded. Google acknowledges that it has no rights to the content that individuals post, but it also states it is not charged with enforcing protection of its users' rights. If a user's content is stolen, the user, not Google, is responsible for rectifying the situation. Google does reserve the right to utilize its users' content for promotional purposes. In order to prevent this type of use, you must notify Google explicitly, in writing, that you do not wish your content to be used. Because Google claims no responsibility for lost data, it is imperative that users back up data that has been uploaded for use with Google's services.

Either of these calendars—or just about any of the other seventeen on the eConsultant list—will work very well with a team that is using 2.0 tools to collaborate. They can be embedded in Facebook profile pages or on wiki pages and used with any number of communication methods to keep a team updated and aware of what is going on.

Social Networking Sites

As we already know, social networks have become so popular that in a given library, it is likely that there are already some experienced users of some of these networks among the staff. Through their websites, these networks offer a lot of different tools that collaborative teams can use in organizing and working on projects. Most social networking sites now offer some sort of application that lets third party developers create custom applications for people with accounts on that site to use. Others are highly customizable and let groups pick and choose which features they want to make active and which ones they might not use at all. All of them help to facilitate communication among team members by giving a team a single place to post information and updates.

Facebook is one of the most popular of the social networking sites, and the one to choose if some of the team already have Facebook accounts. To use Facebook as a collaborative platform, users must take advantage of some of the platform's custom features. Facebook contains message boards and IM tools, so the communication part is taken care of natively. In order to share documents, schedules, and time lines, it may be necessary to use a secondary application.

The Get Stuff Done application is one of the best and most popular tools for collaborative work on Facebook. Once you install this application, you can invite the rest of your teammates to use it. It provides document storage capabilities, photo-sharing capabilities, its own "wall" area (an area on the page where people can post comments for everyone to see and comment upon themselves) for group notices, and a nice to-do list that will help keep team members on track. This application is based on the Getting Things Done (GTD) philosophy outlined in David Allen's book *Getting Things Done* and uses the GTD method to keep track of project tasks.[3] This philosophy works well for collaborative teams as well as for individuals.

The Facebook ToS requires that all users be 13 years old or older and strongly suggests that 13- to 17-year-olds seek parental consent before creating a page. This is unique because of the vast age range of people who are interested in social networking sites. Facebook also requires that each user be responsible for the security of his or her own account information and that all personal data (information in a personal profile) be up-to-date and accurate at all times. The ToS includes a list of both prohibited conduct and prohibited content.

Facebook's ToS is also unique in the way that it deals with third-party software. Facebook takes no responsibility for any non-Facebook application that may damage data or a computer. Like all of the other services described thus far, Facebook reserves the right to use your content. Unlike the other services, however, it reserves the right to use that data for any purpose, including promotional materials. This could be a sticking point for some legal departments.

Facebook
www.facebook.com

Get Stuff Done application for Facebook
http://apps.new.facebook.com/getstuffdone/project.php?id=86820

www.facebook.com/apps/application.php?id=8449172630

Facebook ToS
www.facebook.com/terms.php?ref=pf

Social networking sites like Ning and LinkedIn are part of a growing trend among newer networks. These sites are built with collaborative and professional use in mind. They are highly customizable and can act as private networks for groups. They allow group members a private communication channel where they can share documents; share multimedia content like photos, audio, and video; send messages; and chat via instant message.

Ning includes the ability to create a completely public social network site, a completely private site, or anything in between (see figure 8). Users can make some of their data and interactions private while making others public. The amount of data to be made public or private is highly customizable. Ning is a fantastic tool for teams that want to make certain elements of their work public while having a private channel for team business.

Ning has one of the longer ToSs of the collaborative platforms discussed in this report. The Content section of the document starts with a statement that Ning in no way claims ownership of user content. It does, however, reserve the right to use member content for the purpose of operating the system (displaying a user's content to them and to those they choose to make it available to), internal business purposes, and gathering metrics for use in advertising. Ning also reserves the right to make and keep archival copies of content even after users stop using the service. Ning's ToS has the standard Acceptable Use clause that lays out the conduct that is acceptable for use of the service, and Ning denies any responsibility for damage or loss of user data on its servers or network.

Ning
www.ning.com

Ning ToS
http://about.ning.com/tos.php

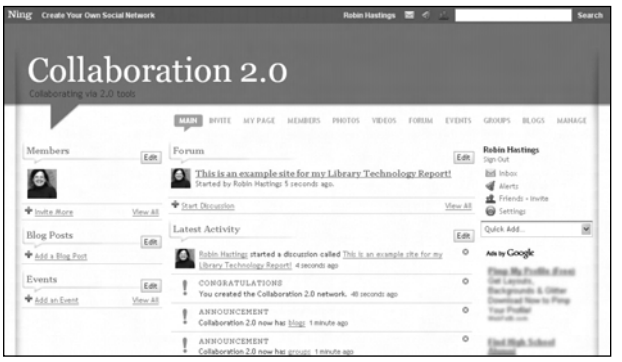

Figure 8
A sample social networking site on Ning.

Bookmarking

Social bookmarking services provide teams with a handy place to store references to online resources and tools that they might need. Delicious is easily the most popular of these services. Bookmarking platforms like Delicious give users a way to bookmark and organize websites that they like, access them from any computer, and share them with other users. Bookmarks are organized with one-word tags that users apply to each site that they save.

Almost all social bookmarking tools give teams a place to store references, handy links, and other important information. This information can be tagged for easy retrieval later, and at Delicious those tags can be bundled into groups for even easier organization. All social bookmarking services offer RSS feeds, and some offer application programming interfaces (APIs) that allow users to manipulate in many different ways the information that they put into the service.

Social bookmarking offers the ability to create a network within the service that team members can use to share links and information with one another easily. These sites allow team members a way to quickly accumulate, store, and organize resources relevant to their work. The ability to tag each link makes organization of your resources pretty easy, as long as everyone agrees on a tagging scheme. While social bookmarking sites might not be able to provide all of the tools that a team needs, they can add value to the other tools that are chosen for the project.

The ToS at Delicious is fairly short. It contains the standard user responsibility clause that states that users are responsible for anything posted to their account, as well as the standard disclaimer of ownership of content that users post. The document also grants Delicious permission to use the data in connection with its affiliates—whether links and data have been marked as private or not. Finally, Delicious also will not take responsibility for lost data put into the service, so backing up bookmarks stored in Delicious is still a good policy. The website contains applications that allow users to transfer bookmarks between their Delicious account and their Web browsers.

Delicious
http://delicious.com

Delicious ToS
http://delicious.com/help/terms

While Delicious is the most popular social bookmarking tool, there are other, more specialized bookmarking sites available to those doing collaborative work. One site called Connotea is more of an online reference management service for researchers. For librarians working with researchers, clinicians, or scientists, familiarity with Connotea may be more important than with Delicious—and it may be a better choice for a project if it is what patrons are using as well. Another service very similar to Connotea is CiteULike, which is also aimed at the scientific community. If a project involves working with scientists or researchers, either Connotea or CiteULike might be a better choice than Delicious to manage your references, links, and other information.

Connotea
www.connotea.org

CiteULike
www.citeulike.org

Wikis

Wikis are software applications that are installed on a server and provide tools for groups to collaboratively author, edit, revise, and publish documents. A wiki, then, appears as a webpage that users who are granted appropriate access can easily expand and modify by logging into their account (see figure 9). The most popular wiki, of course, is Wikipedia. Some organizations that create wikis have the capability to host them internally. The software on which Wikipedia runs, MediaWiki, is a commonly used platform for wikis that are internally hosted. There are also services available for remote wiki hosting. These services allow groups to quickly create an account and have the features of a wiki immediately available.

Wikipedia
www.wikipedia.org

MediaWiki
www.mediawiki.org

Wetpaint and PBwiki are two popular hosted solutions for group wikis. For organizations that need to keep their data internal, a internally hosted solution like MediaWiki can give them the tools they need inside their firewall. For groups that need to have a more central and accessible wiki, Wetpaint and PBwiki offer levels of access to each account that give groups some control over who can read, edit, and administer each wiki that is created.

Wetpaint
www.wetpaint.com

PBwiki
www.pbwiki.com

Wikis facilitate the process of document creation when used in collaborative group work. They not only offer a collaborative space in which to create documents, but almost always provide ways to roll back documents to previous versions, compare versions of a document to see who made what changes, and offer discussion tools attached to each document that give groups the ability to discuss a document outside of the document itself. Remotely hosted wikis often include extra features such as the ability to comment on a page without needing an account (if the permissions for that page allow it) and file storage areas for documents that can be created outside the wiki or for supporting assets like graphics or other files.

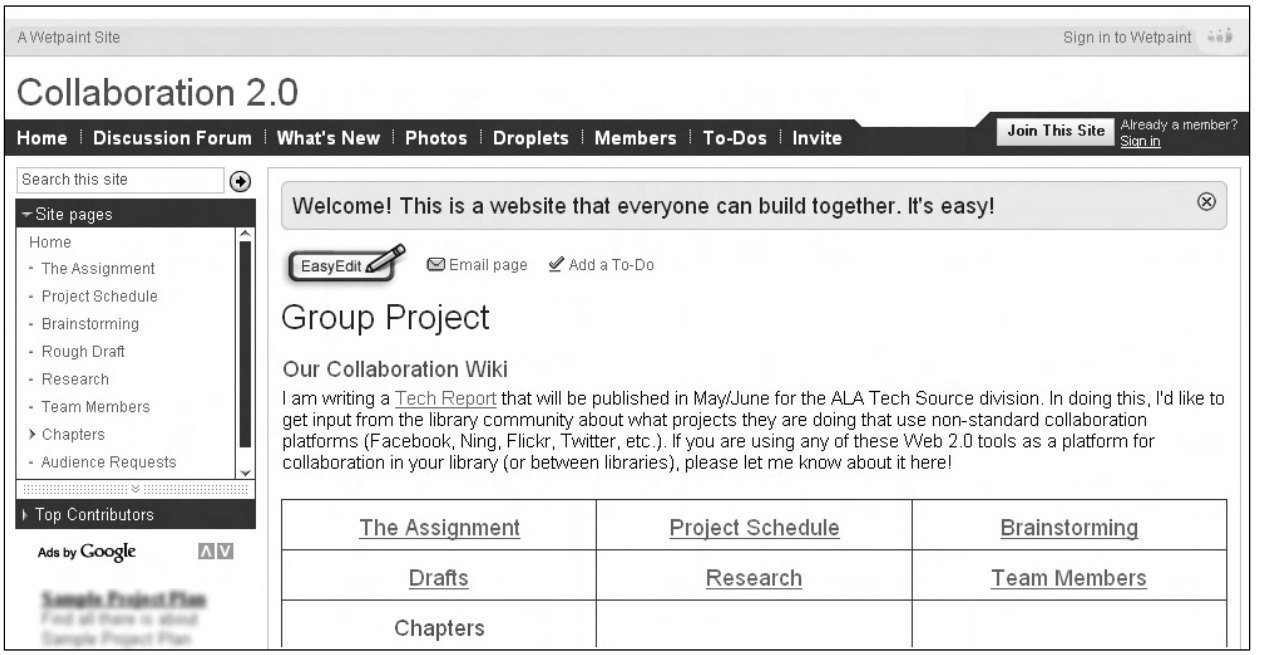

Figure 9
A Wetpaint wiki.

Wetpaint's ToS is mostly a standard agreement. It begins with a claim of no responsibility for anything users might post–they take all responsibility for that. The document also says that while Wetpaint provides a "private" option to its users, it cannot be responsible for hackers who might access the data, so users will have to use those privacy options at their own risk. This is true of most of the services that are in this report, with the exception of the internally hosted groupware discussed in the next chapter. If users need assurances that their data will be private, they may decide to host the data themselves so that they can be sure that they take steps that meet their needs to protect it.

Wetpaint ToS
www.wetpaint.com/page/terms

Wetpaint's take on the use of your data is a bit different, though. It specifically claims an Attribution-NonCommercial-Share Alike Creative Commons (CC) license for everything it displays on its site. This means that if users are not comfortable with a CC license for their documents and the information they put on their wiki, they may decide not to use Wetpaint. The ToS also contains the standard claim of nonresponsibility for any loss of data through the use of the service.

Creative Commons Licenses
http://creativecommons.org/about/licenses

PBwiki has a very interesting English summary of its ToS on its terms page. The summary of the summary is that PBwiki doesn't own user content, that it will defend user secrets as best it can, and that it doesn't do any policing of content, but if the police ask the service to remove data (for copyright infringement, for example), it will. The terms continue with a notice that while the network may have some down time, the service will try to avoid that situation. They end with two requests: that users not sue the service because they prefer to code software instead of defending lawsuits, and that companies using PBwiki regularly pay for the premium version. This, despite the cute phrasing, is pretty much standard fare. The service still reserves the right to display, alter, modify, and so on, user content so that it can be displayed to visitors–just like every other ToS that we have looked at so far. The document also claims no responsibility for loss of data.

PBwiki ToS
http://pbwiki.com/content/termsofservice

Documents

The social documents category includes services like Google Docs (see figure 10) and Zoho Office. These applications give you the ability to create documents with many of the same features (revision tracking, commenting, etc.) that wikis offer, but they also provide more in the way of formatting options and in file format compatibility. Both Google and Zoho can read and write in the major office suite file formats (Microsoft Word, Open Office, etc.), and both let you save documents in the PDF file format, as well as others. They also make sharing documents with others very easy, which is why they are included in the list of social applications. Google and Zoho both offer word processing, spreadsheets, and presentation software options, and Zoho also offers many other business applications as well. Google's big advantage is that if you have a Google account, you already have access to the Docs application and can use it with your existing account credentials.

Google Docs
http://docs.google.com

Zoho Office
www.zoho.com

See the section on the Google Calendar for information about the Google Docs and Spreadsheet Terms of Service—all of Google's properties have the same terms, so if you look at one, you have looked at them all.

Social document-sharing sites like these give teams the opportunity to share not only text-based documents like RTF or TXT files, but also spreadsheet documents with financial information or presentation documents for a meeting. These sites allow users to create documents that are similar to what can be created with Microsoft Office, but the documents are stored on the site's server where they can be modified by anyone who is given permission by the original creator. Zoho also offers other office suite functions, such as a shared database and a project-management feature. Some of the extras in the Zoho suite cost money for multiple users, but the basics are free, just as they are in the Google application suite.

The Zoho ToS is different from those of most of the applications we have seen so far—it includes a clause about beta services that Zoho might offer. Users are cautioned that these features may not work as well or as regularly as the normal, tested portions of the site. Zoho claims absolutely no ownership of user data, but unlike many other services, it also claims no rights to use user data in marketing. Zoho disclaims any responsibilities toward data loss, though, and requires that all user-generated content be legal. Otherwise, the Zoho ToS may be more hands-off than the Google Docs ToS, and as such, may be a better choice for certain organizations.

Zoho ToS
www.zoho.com/terms.html

Blogs

Blogs give teams an easy communication tool with commenting and discussion components built in (see figure 11). As with wikis, there are both internal and remotely hosted options. WordPress actually offers both types of services. Software for internal hosting is available, as is remote hosting through WordPress's server. Either way an administrator decides to go, the WordPress blogging platform is a standard and something that most people who are familiar with blogs will be able to use easily. As with wikis, if users want to keep their data inside their firewall, installing the internally hosted version of WordPress will

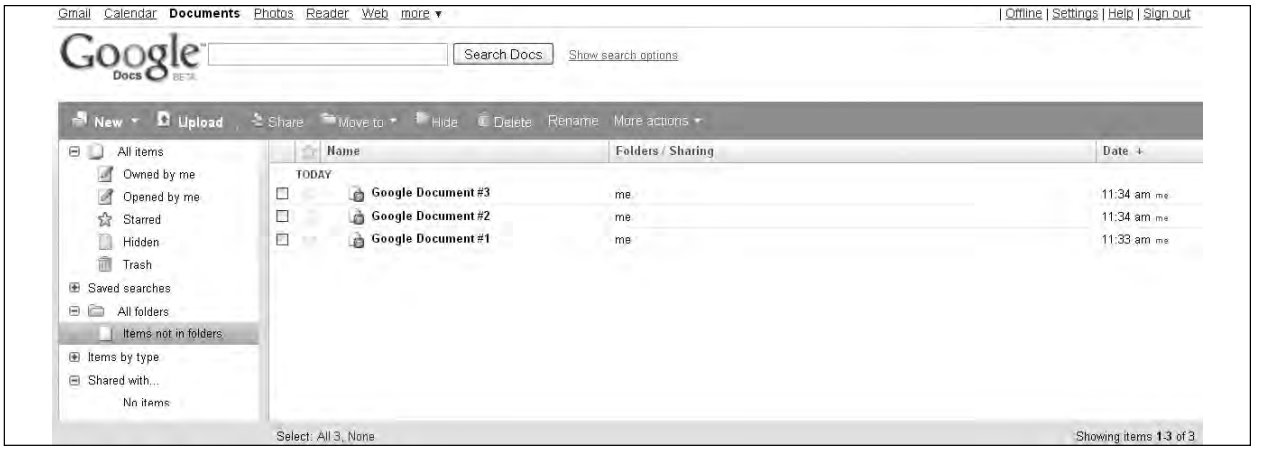

Figure 10
The user interface for Google Docs.

allow them to do that. If users want to collaborate with people outside of their organization, getting a group blog at the WordPress site will be easy and convenient.

WordPress blogging service
http://wordpress.com

Blogs are useful tools for a group to use for internal communications or to publish status reports for external audiences. They automatically organize themselves into chronological order, so they provide a great way to keep track of what is going on in the project by a time line. WordPress, because it is one of the most popular platforms for blogs, also offers a vast number of plugins (small applications users can install into their WordPress blog to perform specific functions—see the sidebar for more information) for users who are using the internally hosted version. The remotely hosted version includes some plugins, but users do not have the number of choices that they can get with an internally hosted blog.

The WordPress.com ToS also has a little summary at the top, similar to PBwiki's ToS. The gist of the agreement is that WordPress wants users to use the platform, so it has been designed to provide as much control and ownership of data as possible. Of course, WordPress still asks that users post responsibly and includes a list of prohibited items (other people's copyrighted work, spam, libelous content, etc.) that is not allowed. WordPress also claims the right to redisplay user work, but only for that user's blog or the promotion of that blog—not for general marketing purposes. Finally, there are the usual disclaimers that every service has of taking no responsibility for loss of data. WordPress.org—the internally hosted solution—can be used as users see fit and, because it is open source software, has only a very liberal usage license, as opposed to a true ToS like the remotely hosted options mentioned previously.

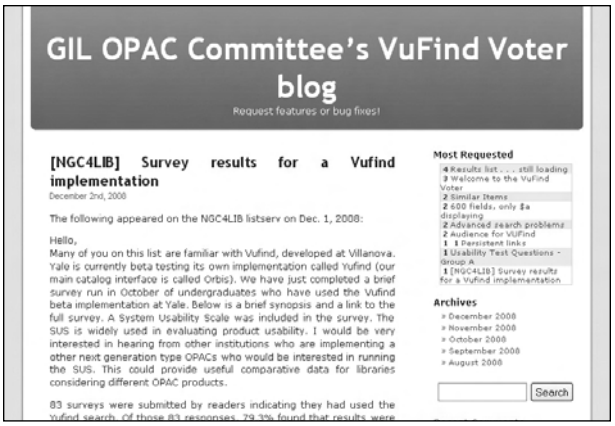

Figure 11
The GIL collaborative blog.

WordPress Plugins

WordPress is designed with "hooks" in the program that allow third-party developers to create functionality for the blogging platform and share it easily. Plugins require only that you download the files, upload them to your server (in the plugins directory that has already been created for you), and then go into the admin backend of your blog and click a link to activate the plugin. You can find a huge number of plugins on the WordPress site at the Plugin Directory: http://wordpress.org/extend/plugins. Some of those may fit your needs perfectly, depending on what your group wants to do.

WordPress.com ToS
http://en.wordpress.com/tos

Miscellaneous Sites

There are a number of different kinds of social media sites that can be useful for group projects of any type. From microblogging tools like Twitter to lifestreaming tools like FriendFeed to picture- and image-sharing tools such as Flickr, there are a number of different ways that social tools can be used by collaborative groups.

Microblogging

Twitter is the standard microblogging application. Microblogging consists of very short messages (short enough to support the 140–160 character limit for SMS or text messaging applications on cell phones) sent to people who "follow" your account. Its popularity has skyrocketed in recent years and appears to be continuing.[4] Followers also have an account and can send their own microblog messages. Two people who follow each other can engage in short-form communication via the microblogging application. Twitter is useful for status updates within a group or for sending out quick questions to poll the "hive mind" of all of the people who follow a given user.

Twitter's ToS is pretty basic. You must be at least 13 years old to get an account; users are responsible for anything that is posted under their screen name; you must not harass other Twitter users; you must not use Twitter for illegal purposes; you are responsible for your conduct and your data; you must not try to hack, spam, or introduce a virus into Twitter; and you must not violate the laws in your area through the use of Twitter. Any violation of these terms will result in Twitter closing down the account.

Twitter ToS
http://twitter.com/terms

Lifestreaming

Lifestreaming is the process of pulling together multiple Web 2.0 applications and displaying all of the activity on those applications in one spot. FriendFeed is one of the more popular lifestreaming application in use today and is very popular in the library community. FriendFeed not only aggregates all of the content from the various services your team may be using, but it can do it in a room, either public or private, so that there is a specific URL on the FriendFeed site that contains all of the updates from all of the services that are in use by all of a group's members in one place.

FriendFeed's ToS is short—just a license to use the service, a note on user responsibility, a quick discussion of FriendFeed's rights to its own intellectual property and its intent to comply with notices of copyright infringement, and finally, a claim of no responsibility for any data lost on the service.

FriendFeed
www.friendfeed.com

FriendFeed ToS
http://friendfeed.com/about/terms

Flickr

Flickr is a photo-sharing service with social aspects (see figure 12). Flickr enables users to join groups and make other individuals their contacts, or friends. This is a great way to store both pictures for a group and graphics that might be useful—any JPG, GIF, or PNG file can be stored on Flickr. Because of Flickr's use of Creative Commons licensing, many of the images uploaded by other people may be available for free use. Often the attribution license is the only one applied to images that are uploaded so that any use of the image is allowed as long as credit is given to the original photographer. This means that Flickr could be a good source of images for a project, even if the group isn't using it to store their own images.

Flickr
www.flickr.com

Flickr ToS
http://info.yahoo.com/legal/us/yahoo/utos/utos-173.html

Figure 12
Flickr is a popular online photo-sharing site with collaborative capability.

Flickr is owned by Yahoo!, so Flickr's ToS is the Yahoo! ToS. The general structure of the Flickr ToS is the same as many of the others mentioned so far: the service requires certain behavior from its users, and it provides no guarantees that your data will be available at a given time. One area of difference is the fact that Flickr does not prescreen any of the images put up on the site, but reserves the right to remove any image that violates the ToS. For photos and graphics uploaded to the Yahoo! network (Flickr, for example), Yahoo! retains the right to display user images, but only for the purpose for which they were put up in the first place—to share with contacts and friends.

Notes

1. "Top 19 Full List of Social Event Calendar Sites," Technical Lists:eConsultant,July5,2007,http://lists.econsultant.com/top-full-list-of-social-event-calendar-websites.html (accessed March 17, 2009).
2. "iCalendar," Wikipedia, http://en.wikipedia.org/wiki/ICalendar (accessed March 17, 2009).
3. David Allen, *Getting Things Done: The Art of Stress-Free Productivity* (New York: Penguin, 2002).
4. "Twitter Grows Fastest, MySpace Still the Social King," Nielsen Wire, Oct. 23, 2008, http://blog.nielsen.com/nielsenwire/online_mobile/leading-social-networking-sites-still-growing (accessed Feb. 24, 2009).

Chapter 7

Groupware

Groupware is "software designed to help people involved in a common task achieve their goals," according to Wikipedia.[1] This definition includes just about every software application and service that has been mentioned in this report, as well as many others. To narrow down the definition a bit, I will define groupware as a suite of applications that can be found on their own, but are put together into a groupware package for the convenience of the collaborative team. This means that groupware includes calendaring, link/bookmark management, document storage and/or creation, communication tools, and usually a wiki-like component. Each of these separate parts can be used on its own, but groupware gives you a common look and feel and a common sign-on to keep the number of usernames and passwords that your team has to remember to a minimum.

External Groupware

External sites that provide groupware capabilities are being launched almost every day. One of the first of these sites was Grou.ps (see figure 13). This site offers—for free—a group website, a desktop client, a mobile interface, and a Facebook application that can be installed in a Facebook account to keep track of the activity in the Grou.ps account. Users can also connect a Grou.ps account to many of the social tools that have already been discussed in this report. Grou.ps can integrate an existing Delicious account into the Grou.ps account so that all of the bookmarks are managed from within the single groupware application. For a large project with a large number of participants, groupware such as Grou.ps may be the best choice.

Grou.ps
http://grou.ps

The ToS for Grou.ps is slightly different from most because it takes into account any code that users might write for the site (HTML for a group site, for example). All code that is submitted to the Grou.ps service is done so under a choice of licenses—but regardless of the license is chosen, Grou.ps claims no rights to user code or user data at any time. The ToS also does an excellent job of explaining why the service has to have the right to modify user content in order to display it properly on the site or the right to publicly perform or display user content—so that others can see it as well. The statement also explains why Grou.ps chose the licenses that must be used—the service wants to encourage sharing of code and data between groups and so make all data easily shared via the license. Users who do not want their data displayed under anything less than full copyright should probably consider using an internally hosted solution.

Internal Groupware

Some projects require more security or confidentiality than an externally hosted application can provide. Projects with those requirements may benefit from the use of an internally hosted groupware solution. This requires more involvement from the IT staff, who will probably be needed to install and run the groupware, plus some special server software (usually the PHP scripting

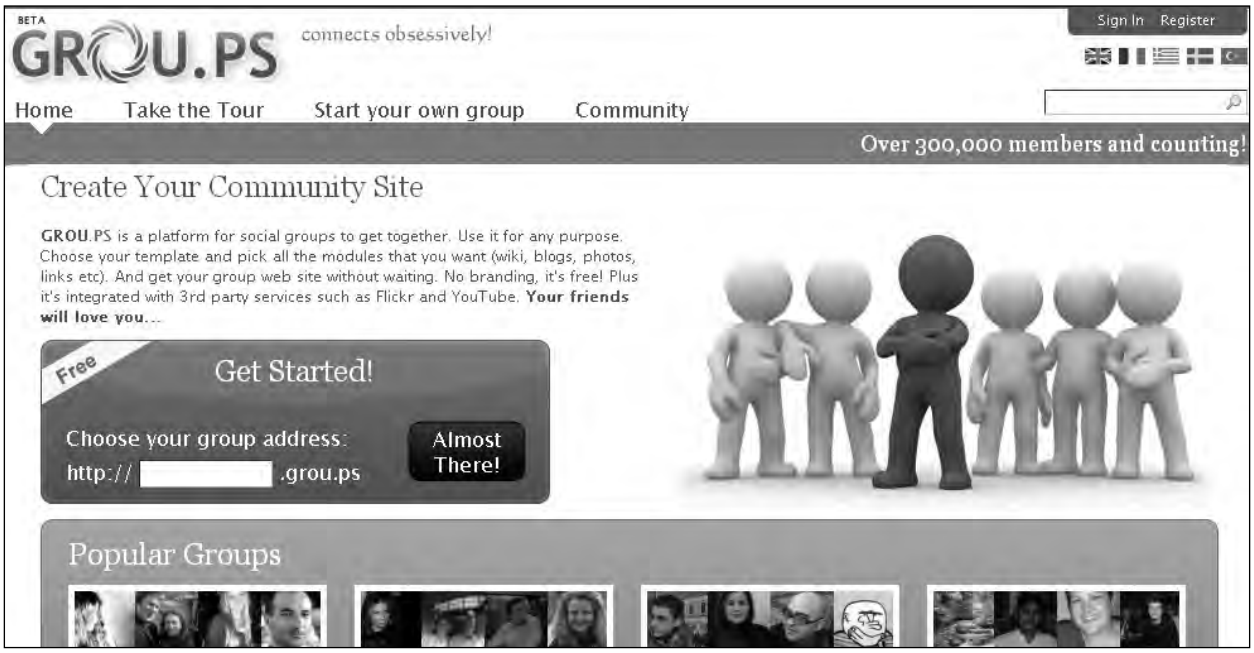

Figure 13
Grou.ps site

language and a MySQL database, both freely available on the Internet). If no IT staff is available, it is important to have an employee with advanced technology skills who can install and administer the software. The administration of this software is not for beginners. In return for this knowledge investment, however, groups can get all of the benefits of groupware without having to transport or store sensitive data through the Internet.

The class of software known as Content Management Systems (CMSs) can work as groupware in this way. Both Drupal and Joomla are free, open source CMSs with the capabilities to become full-feature groupware. The base system for each of these CMS applications provides the group website, and modules can be added to both of them to give a group communication tools, calendars, connections to other social software sites (social bookmarks, social document sites, and social networking sites, to name a few), and wikis. The learning curve is a bit steeper and the setup a bit more complex for an internal groupware solution, but the ability to control your data and know who has access to it—and who does not—may be worth it to the project.

Drupal
http://drupal.org

Joomla
www.joomla.org

Drupal is a nice groupware system by itself, with built-in blogs, forums, and user management abilities that give everyone a chance to be an author or editor of the content in the site. Drupal can pull in information from other tools that group members may be using by utilizing some of its huge and growing list of modules For instance, a module to pull in a set of Delicious links allows the administrator of the site to choose a number of either users or tags to grab from Delicious and display them on the group's site. There are a number of Facebook-related modules, including one that uses the Facebook Connect service to pull in a user's contact information and other data from Facebook into the group's Drupal site and one that provides a platform for creating a Facebook application using the content already created on Drupal. There are also multiple modules for pulling in Flickr pictures into your groupware site. The Flickr module allows users to either insert their most recent photo or photoset or choose which photos to include through a built-in filter. Drupal has dozens of other modules available.

Delicious module for Drupal
http://drupal.org/project/delicious

Facebook Connect module for Drupal
http://drupal.org/project/fbconnect

Facebook Application module for Drupal
http://drupal.org/project/fb

Flickr module for Drupal
http://drupal.org/project/flickr

Joomla also has many extensions to the software that will help users customize their groupware site and allow the group to use it effectively. One of the new modules available is the GCalendar extension. It pulls in Google Calendars and displays them inside the user's Joomla site. Joomla also has an extension that allows a full-featured MediaWiki to be used inside the Joomla-based site. It makes incorporating a wiki into a group's site painless. For those who also use social document services, there is a GoogleDocs extension, which enable users to embed documents from the Google Docs and Spreadsheets service into their site. Many others are also available at the Joomla site so that users can make your Joomla groupware site do exactly what it needs to do.

GCalendar extension for Joomla
http://extensions.joomla.org/extensions/calendars-&-events/calendars/1625/details

aWiki for Joomla
http://extensions.joomla.org/extensions/bridges/wiki-integration/3808/details

Google Docs extension for Joomla
http://extensions.joomla.org/extensions/external-contents/widgets-&-documents/5404/details

Note

1. "Collaborative Software," Wikipedia, http://en.wikipedia.org/wiki/Groupware (accessed Dec. 1, 2008).

Chapter 8

Collaboration in Action

Now that we have gone over many the different tools that are available for collaborative teams to use, we must ask how we can use these tools most effectively. This chapter includes a number of case studies involving many of the tools that have been introduced in this report. These are all cases where libraries used Web 2.0 tools to collaborate both internally with their own organizations and externally with other organizations to get library-related projects done. These stories are meant to illustrate how these tools are used in real-world situations and to inspire librarians to use them in future projects.

Collaborating Using Blogs

The state of Georgia uses a single library catalog for all of the academic libraries at the public colleges and universities in the state. The GIL OPAC committee manages this catalog. One of the committee members, Cliff Landis, helped to set up a blog that would collect and rank bugs and other issues in their recent investigation into adding a VuFind overlay to the existing catalog. The VuFind overlay adds Web 2.0 features to an existing catalog, so they decided that using Web 2.0 tools to help manage the project would be ideal. During an e-mail conversation with Cliff about the project (on January 9, 2009), he provided details on how the blog works to help facilitate statewide collaboration on this project.

VuFind
www.vufind.org

The blog was implemented in order to improve communications between the members of the GIL OPAC committee. It is run on a internally hosted WordPress blog and gives committee members a way to both request features and submit bugs that they find in the system. Cliff added the Vote It Up plugin for the WordPress system as well. This plugin adds a "vote" link to the end of each post, giving committee members a way to vote for a particular feature request or bug fix that they feel is important. This allowed the catalog developers that were working on implementing the VuFind system to easily identify the features and bugs that were most important to the committee members.

Vote It Up plugin
www.tevine.com/projects/voteitup

The combination of the WordPress blog and the Vote It Up plugin with blog comments on bugs and user requests gave developers and committee chairs the ability to make informed decisions about what direction to go with the pilot project. These tools made the communication part of the collaborative project easier and more transparent than traditional e-mail or telephone communication would have been.

Collaborating Using Wikis

Jason Griffey, the head of Library Information Technology at the University of Tennessee at Chattanooga, is respon-

sible for creating a wiki that is widely used both inside and outside of his organization. The wiki helps to support a new $48 million academic library for his campus. In an e-mail to me, Jason described the wiki as giving everyone involved in the project—librarians, faculty, students, architects, and members of the state staff—a central point to find information and collaborate. He says that wiki has been "invaluable" to this effort.

Building Wiki for the University of Tennessee in Chattanooga
http://wiki.lib.utc.edu/index.php/Library_Building_Project

Jason Griffey's wiki is edited by about thirty different people—some internal to the library and some external, but all part of the building project in some way. As many as five to seven people actively use the wiki at least once a week, but as many as fifteen use it on a monthly basis to enter updates. The wiki has provided the team of people involved in the project a single place for all information about the project itself. Jason said that they have found the revision history that is a central feature of wikis to be helpful in tracking changes to documents, especially on documents relating to library policy.

Jason began the wiki at the same time the building project became a reality—he felt the need to make information about the process they were about to undergo as transparent as possible. The easiest way to do that, he believes, is to "allow for lots of different content to be touched by lots of different people." The decision to go with a wiki came from combining that need with the need for attribution and a record of the changes that were being made to the documents.

One important point that Jason made was that the wiki had been successful enough in its use in the building project for it to have grown organically. He says that all of the library's departments are now using the wiki for document management. This shows that when given access to collaborative tools, people will expand the scope and use the tools as they need to—making the tools that much more valuable to the organization.

Collaborating Using Social Networks

Facebook is a popular service that started as a college-only application, then expanded to the public. It is still amazingly popular with college students, so Jay Bhatt, the information services librarian for engineering at Drexel University, decided to use that platform to provide some collaborative opportunities for the students in the engineering department. He created the Drexel Engineering Information Resources Awareness page to provide a collaborative space for students and faculty to work together and to share information resources with one another. In an e-mail (on January 20, 2009), Jay said that he imports his blog feeds and Delicious links into Facebook for the students to use in order to discover new resources. The students make use of Facebook's discussion board, as well as Wall posts, to disseminate information to each other.

There are several Facebook pages built around the College of Engineering at Drexel, and all of them provide a way for students to communicate, share information, and work on their college coursework together. In some ways, this is a collaborative study group with a global reach and a local focus. Drexel and Jay Bhatt are using Facebook to bring together students who have similar interests and are giving them a space in which to collaborate.

Drexel Engineering Information Resources Awareness Campaign
www.facebook.com/group.php?gid=4327909570

Collaborating for Training

Today, many Library Learning 2.0 and 2.1 programs have been offered around the world, but they all owe something to Helene Blowers, who introduced the original Library 2.0 program at the Public Library of Charlotte and Mecklenburg County (PLCMC) in August 2006 and then expanded it to a Learning 2.1 program in May of 2007.[1] One of the programs inspired by the Library 2.1 program is Maryland Libraries Learning 2.1. When I asked Maurice Coleman about the program in an e-mail on February 5, 2009, he told me that he, as the technical trainer at the Hartford County Public Library, and Jennifer Ranck, who at the time was the training coordinator at the Eastern Shore Regional Library in Somerset County, Maryland, created Maryland's Learning 2.1 program together. They took some of the sites from the PLCMC's Learning 2.1 program and picked the ten that they wanted to focus on. They used the WordPress blogging platform to host the program's blog and used the PBwiki service to host the extended descriptions of each of the things that they focused on during the program. The people who worked on the program could leave comments on the blog, though only Maurice and Jennifer could actually make edits to the page.

Maryland Libraries Learning 2.1 blog
http://marylandlearning.wordpress.com

Maurice told me in an e-mail (on February 5, 2009) that the use of a single blog with comments from the participants (as opposed to each participant using his or her own blog to discuss the program, as was done in the Learning 2.0 course) made the Learning 2.1 program much less of a hassle and much easier for the students to participate in. The wiki gave Maurice and Jennifer a single place to store all of the supporting information for the program. They used the blog and the wiki to make their communications easier as well as to make the course simpler for the students.

Putting It All Together

This report has examined collaborative Web tools that many librarians are already aware of and using every day. We've seen how these tools can easily be put to use in collaborative library projects. Making use of the tools that have been profiled in this report will not guarantee that a big project will be perfect in every way, but the tools and ideas that are included in this report should give librarians a roadmap to making those projects better and less of a hassle.

From Facebook to Flickr to Google Docs, the use of these tools in library projects can improve communication, provide automatic backups in the cloud of data and important documents, and widen the pool of potential collaborators. When considering new tools, it is always important to keep security in mind. Some of these tools can put sensitive data at risk of hackers and, without regular backups, could cause a complete loss of data for a project. For those willing to enforce policy decisions for these tools (for instance, a policy that all documents must be downloaded to a local machine every day for backup or a policy about what sort of data gets added to these services and what sort doesn't) and are comfortable with the terms of service for the applications they choose to use, these tools can be of real benefit to a library's collaborative projects.

Learning 2.0 and 2.1: A Great Way to Teach Staff about Web 2.0 Tools

For those who have not already heard about the Learning 2.0 and 2.1 programs designed by Helene Blowers of the Public Library of Charlotte and Mecklenburg County (PLCMC), these programs are designed to teach Web 2.0 tools and skills to library staff in a series of self-paced lessons. The lessons are structured so that each one is a blog post that staff members can read on their own. Students can then create their own blogs to respond to the questions and discussion points given in each lesson. PLCMC originally started with "23 things" to learn, but some who have also implemented this idea have expanded on those things and some have cut them down to suit their staff's needs. The Learning 2.0 program used many different Web 2.0 tools, many of which are included in this report, and provided library staff with a way to learn about Web 2.0 tools by doing, not just by reading about them.

From Helene's original idea came a number of different implementations. Helene keeps a list in the Delicious bookmarking service of all of the Learning 2.0 programs that she is aware of. Anyone can view how others have taken Helene's original idea and made it their own by visiting the list that she maintains at http://delicious.com/hblowers/learning2.0Libraries. She released her original program to the public under a Creative Commons license, as did most of the people who created programs based on her original idea. Anyone with a valid idea is welcome to contribute. This is a great way to get staff members who are not familiar with these tools trained and up-to-date.

Figure 14
Collaborating with FriendFeed

Note

1. Explore . . . Discover . . . Play–Learning 2.1 at PLCMC, http://explorediscoverplay.blogspot.com; Helene Blowers, "Learning 2.0 Message," Learning 2.0, Jan. 12, 2007, http://plcmclearning.blogspot.com (accessed March 17, 2009).

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Tools

Social Calendars

30 Boxes. www.30boxes.com

Google Calendar. www.google.com/calendar.

Social Networking

Facebook. www.facebook.com.

Ning. www.ning.com.

Social Bookmarking

CiteULike. www.citeulike.org.

Connotea. www.connotea.org.

Delicious. http://delicious.com.

Wikis

MediaWiki. www.mediawiki.org.

PBwiki. www.pbwiki.com.

Wetpaint. www.wetpaint.com.

Social Documents

Google Docs. http://docs.google.com.

Zoho Office. www.zoho.com.

Blogs

WordPress, remotely hosted. www.wordpress.com.

WordPress, self-hosted. www.wordpress.org.

Miscellaneous Sites

Microblogging

Twitter. www.twitter.com.

Lifestreaming

FriendFeed. www.friendfeed.com.

Tumblr. www.tumblr.com.

Photos

Flickr. www.flickr.com.

Wordpress Plugins

Haur, Lim Jiunn. Inline Google Docs. http://wordpress.org/extend/plugins/inline-google-docs.

Keung, Peter. Peter's Post Notes. http://wordpress.org/extend/plugins/peters-post-notes.

Praven and Pizin Dim. ToDo Plugin. http://wordpress.org/extend/plugins/todo-plugin.

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