In September 2005, the Reference Division of the Indiana Library Federation held a one-day conference called “How to Use Hot Technologies and Not Get Burned” (http://www.ilfonline.org/Units/Divisions/Reference/hottech.html). Jessamyn West, Michael Stephens, Scott Pfitzinger, and others talked about instant messaging, weblogs, wikis, photo sharing, and other technologies. The focus of the program was to demonstrate how libraries could use these tools for outreach.

Since that conference, many books, articles, conferences, webinars, etc., have been devoted to these technologies that form the core of Web 2.0 and Library 2.0. Many definitions of Web 2.0 have been bandied about, but the simplest way to think about Web 2.0 is as a collection of “Web-based services—such as social networking sites, wikis, communication tools, and folksonomies [user generated classification systems]—that emphasize online collaboration and sharing among users” (Wikipedia, 2007). Library 2.0 has also been defined in numerous ways, but most definitions stress outreach to a broader library community using Web 2.0 technologies, incorporating ideas from outside the library world and seeking active input from patrons (Crawford, 2006).

This article looks at six different technologies: instant messaging, weblogs and RSS, wikis, podcasting, photo sharing, and VOIP. Each entry offers a definition of the tool/technology, its uses in a library, audiences that are currently using it, and a selection of helpful articles and websites. Since technology is constantly changing, the authors hope that this information will encourage librarians to experiment with these tools and implement some of the ideas outlined in the article.

**INSTANT MESSAGING**

Instant messaging (IM) is similar to e-mail in that it is an exchange of text messages and may include links and file transfers, but IM is a more immediate and informal way of communicating. IMs are delivered in real-time and are much more conversational and conducive to collaboration than e-mail. Users may set themselves to be “invisible” or “away” at times when they do not want to be disturbed. Away messages may also be automatically activated when the user has been inactive on the computer for a certain length of time. Additionally, all of the major services offer offline messaging, so messages sent when the recipient is not online will be delivered when the recipient is active again.

**In a library setting IM can be used in various ways:**

- **Patron-to-librarian interaction:** A patron might IM the library with a reference question, either from home or from within the library. If a patron is working online from home, she might have to disconnect from the Internet to call the library, but with IM she can ask her question while she continues to work online. A patron working in the library might use IM rather than coming to the reference desk because she may not want to leave the computer where she is working. Also, the relative anonymity of the IM reference transaction may actually make a patron more willing to ask questions and perhaps enable her to ask questions that she would not ask in a face-to-face transaction.

- **Librarian-to-librarian interaction:** If a colleague is struggling with a reference question, a discreet IM tip could help her out. In between reference transactions, IM could be used to discuss projects with other librarians.

- **Librarian-to-staff interaction (and vice versa):** Is there a need to call or visit other library departments to ask questions and get answers? Instead, one could IM the other department for the answers without interrupting the reference transaction. Most IM services show whether the person is available or not, so checking a person’s IM status can save a trip to an empty office.

**Some popular IM systems:**

- **AOL Instant Messenger or AIM** (http://aimexpress.aol.com/) is the most widely used single protocol IM system. Single protocol means that users on a system can only communicate with users of the same system.
• Yahoo! Messenger (http://messenger.yahoo.com/) and Windows Live (MSN) Messenger (http://get.live.com/messenger/overview) have created a dual protocol system that allows their two formerly separate services to cooperate. Combined, they have more active users than AIM.

• Google Talk (http://www.google.com/talk/) is linked to the increasingly popular Gmail service from Google and is a single protocol system.

• ICQ (http://icq.com/) is a dual protocol system that can communicate with AIM.

• MeeboMe (http://www.meebome.com/) is a widget (Windows gadget) that is installed on webpages, allowing people using the website to IM without being registered with an IM service.

These IM client programs allow one to use multiple IM systems simultaneously:

• Meebo (http://www1.meebo.com/index-en.html) is a web-based IM client program. Once one creates an account, one can sign into Meebo and IM using any of the top four services from any computer connected to the Internet. There is no software to download and install, as all messages are handled via a web interface.

• Trillian (http://trillian.cc/ PC only), Fire (http://fire.sourceforge.net/ Mac only), and Gaim (http://gaim.sourceforge.net/ PC or Mac) are multi-protocol systems that allow use of several IM systems at the same time.

An excellent resource for current information on libraries using IM, as well as articles about this topic, can be found at the Library Success Wiki’s section on Virtual Reference and IM (http://www.libsuccess.org/index.php?title=Online_Reference).

BLOGS & RSS

A blog – short for Web log – is an easily updated website in the form of an online journal. Entries are in reverse chronological order, with the newest content displayed at the top. Blog entries may contain images, links, video clips, and polls, as well as text. Each blog entry has a link to a comments area where readers can comment on the blog entry. Blog comments may be opened to all, moderated, limited to registered and approved users, or completely disabled. Discussions often develop in the comments area between the blog author and her readers, furthering the communication between librarian and patron.

Blogs are a way to let patrons know what is new at the library by posting information about new materials, library news, event announcements, policy changes, etc. Most libraries are already using flyers, newsletters, and table tents to publicize these things, but, with a blog, patrons can respond to posts and engage in a conversation with the library. Some libraries have begun using blogs to facilitate online book discussions, especially with teenagers (Rettberg, 2006). The Thomas Ford Memorial Library in Western Springs, Illinois, has created a blog in conjunction with the Western Springs Historical Society (http://westernspringshistory.org). The blog posts pictures and information about historic buildings in Western Springs, and community members use the blog comments area of each post to contribute information, ask questions, or simply reminisce about the buildings that are listed.

Stephens (2006a) has written extensively on Web 2.0/Library 2.0 technologies, including blogs. Some of his recommendations for launching a successful blog include developing guidelines for all content creators to follow, determining the scope of one’s blog, and reading other blogs for inspiration.

RSS (Really Simple Syndication) allows users to easily subscribe to new content. Most blogging software and sites include an RSS feed that enables readers to have each new post delivered to them. RSS feeds are a great way to keep up with blogs of interest. Rather than visiting each website every day, a snippet of the content is delivered and one can click through to read more. Bhatt (2006) has offered guidelines on various ways librarians can use RSS as an outreach tool. RSS feeds can be managed at sites like Bloglines (http://www.bloglines.com), read on a personalized Google homepage, or accessed through other RSS aggregators.

WIKIS

Most people have heard of Wikipedia, a popular user-created encyclopedia, but fail to realize that this is just one example of a wiki. Wiki software was created by Ward Cunningham, and wikis can be defined as collaborative workspaces where visitors can create, edit and update content, reorganize the structure of the wiki, or track changes to the wiki and delete content (Achterman, 2006).

Matthies, Helmke, and Slater (2006) stated that wikis are useful in “team-based collaborations in areas such as policy creation, customer service and research” (p. 32). For librarians working with state organizations or from a branch library, a wiki could enable real-time interaction between members without the worries of e-mailing documents, especially as the content of the documents change quickly. Conference planners see wikis as a tool for managing paper proposals, establishing submission guidelines, and developing best practices (Hill et al., 2006). Miami University Libraries have created an information desk wiki to supplement their reference desk service by posting FAQs and pending reference questions (Matthies et al.). Ginsberg (2006) reported that the University of Connecticut Libraries
has “created a wiki for its information technology resources” that staff can use to provide documentation on Voyager and SFX, evaluate new technologies, and assess the management of hardware and software (p. 9). Butler University instruction librarians engaged business students during an instruction session by requiring them to post resource evaluations to a wiki (Matthies et al.)

There are many different software options for creating a wiki, including:

- Mediawiki – free software that can be downloaded to your server. Wikipedia uses this software. http://www.mediawiki.org/wiki/MediaWiki
- Wikispaces – hosted wikis that are either free with universal access or fee-based for private and ad-free wikis ($5/month or $50/year). http://www.wikispaces.com/
- PBWiki – a hosted wiki website that the site claims you can “make a free wiki as easily as a peanut butter sandwich.” http://pbwiki.com/

Before making any software decisions, libraries need to thoroughly explore the following:

- audience of the wiki (staff, patrons, or both)
- content creators (staff, patrons, or both)
- if freely available or password protected
- whether the software will be hosted locally or accessed remotely.

Stephens (2006c) reported the best practices for wikis, which included playing with the technology, making and learning from mistakes, developing a structure (general categories, outlines, or guides) before going live, and proactively monitoring changes.

PODCASTING

Sampson (2006) offers this simple equation to define a podcast: “AUDIO FILE + RSS FEED = PODCAST” usually in a MP3 format (p. 11). As explained earlier, an “RSS feed allows one to subscribe to content that is automatically delivered” (Sampson, p. 11). Podcasts are useful to all librarians for “retrieving information and disseminating information” (Kreider Eash, 2006, p. 18). In her article, Kreider Eash lists the steps, software, and hardware needed to create and disseminate audio files. Sampson’s article describes her public library’s experience selecting content to broadcast, finding an RSS host to support multiple feeds with enough storage, experimenting with podcasts (video podcasts), and some assessment of podcast use by patrons. In 2006, HigherEd BlogCon hosted a series of online meetings and forums on various Web 2.0 topics, including podcasting, which provided information on the basics of podcasting and one library’s experience creating podcasts from scratch.

Worcester and Barker (2006) list some ways podcasts are being used in academic and public libraries: course lectures, database instructions, walking tours, audio reserves, and popular audio books (p. 89). Kreider Eash also lists ways that podcasts can be used in K-12 libraries: promoting student learning (peer-to-peer), sharing school news, promoting the library, and providing professional development (p. 18-19).

Podcasts can be found on many different websites, including:

- Podcast.net – http://www.podcast.net/

FLICKR

Flickr is a photo sharing site. Unlike previous photo storage sites, Flickr allows one to post photos to blogs or other websites and tag photos to make them searchable. By default, Flickr photos are public, but one can choose to keep all or selected photos private. Flickr is all about options. People can comment on any Flickr picture and account holders can moderate those comments, deleting or hiding posts. Notes and tags (keywords describing content) can be added to any photos. For example, Flickr has a grouping of photos tagged with “librarian.” Depending on the privacy settings one has chosen, others can also tag and add notes. Each Flickr user’s page has an RSS Feed button in the lower left to make it easier for others to subscribe to a user’s content. Flickr also allows one to create groups, which can be open to all or limited to only invited (and approved) members. There is an established librarian group at Flickr and it can be found at: http://flickr.com/search/groups/?q=librarian.

Flickr can be used to post pictures taken at programs, to scan book covers for a new materials blog, to create a photo tour of the library, or as in the case of the Western Springs History blog, to post pictures from one’s archives. Gordon and Stephens (2006) and Stephens (2006b) discuss many tips and best practices on how to get started using Flickr.
VOIP

VOIP stands for Voice over Internet Protocol and allows people to use their computers to talk on the phone to others. Also known as Internet telephony, this growing business segment can offer VOIP subscribers high-speed Internet, voice mail, caller ID, call forwarding, and other features for a low price (“Internet Phoning,” 2006). Companies like Avaya and Cisco Systems are big players in the business VOIP sector, while many traditional phone and cable companies offer consumer VOIP services. The best-known company marketing VOIP directly to consumers is Vonage. Subscribers pay for monthly service that allows unlimited calls within the U.S. and unlimited calls to other select countries.

Advantages to switching include a flat fee for international calls, the ability to select the phone number (including area code), and its portability: “plug the adapter into any phone and a wired high-speed Internet connection” when traveling and calls home are local (Pogue, 2007, para. 9). Additionally, VOIP is not subject to federal taxes and fees like traditional and cell phones (“Internet Phoning,” 2006). Disadvantages with any VOIP service include dropped calls, dependence on power and a high-speed Internet connection, increased Internet traffic that can impact voice quality, and 911 services inability to know one’s location and other security vulnerabilities (“Internet Phoning”).

Free computer-to-computer telephone services are available, such as eBay’s Skype. Users plug headsets into their computers, activate the Skype software, and call other Skype users. Calls to landline or cell numbers can be made for a fee. Skype is free because users must agree to let their computers and servers route Skype traffic (Woo, 2006). Some universities have blocked Skype because it drains network resources for the benefit of the company’s callers. Skype suggests that proxy servers should be installed to keep networks from becoming relay stations (Woo).

Skype can help librarians organize and host conference calls where bandwidth concerns are not an issue. If fee-based VOIP systems are considered for use by libraries, additional hardware might need to be purchased. Whatever direction libraries interested in VOIP choose to take, policies regarding the use of VOIP by patrons will need to be considered. Why not use a wiki to get started?

REFERENCES


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