The literature related to training and managing library reference staff makes it clear that both enterprises are fraught with difficulties. Training is never complete because the universe of information objects and indexes constantly expands, the formats and interfaces through which information is accessed change regularly, and library policies and services are ever adapting to better meet the needs of patrons (Neuhaus, 2001). Management is complicated because reference services are often staffed by large pools of staff, frequently drawn from many areas of the library and because services are often provided at hours when primary supervisors are not available (Zabel, 2005a, 2005b).

In academic libraries, reliance on student workers introduces additional impediments: complex schedules, frequent turnover, and inconsistent levels of commitment (Jetton, 2009). These factors and others have made it difficult for reference managers to ensure that their staff are always prepared to deliver high quality service.

These difficulties, in concert with reductions in the number of substantive questions fielded, have prompted some libraries to do away with reference desks altogether and others to adopt a referral model that drastically reduces the number of staff responsible for fielding complex questions (Meldrem, Mardis & Johnson, 2005; Carlson, 2007; Sonntag & Palsson, 2007). Some of the libraries retaining more traditional reference models have looked to technology for better ways to schedule, train, assess, and communicate with their staff.

Social software, defined by Bejune and Ronan (2008, p. 11) as “software that enables people to connect with one another online,” has been identified as holding particular promise for effecting low-cost, sustainable improvements. In the past few years, a number of librarians have reported successes with the use of wikis to deliver training and simplify access to schedules, policies and procedures (Clark & Mason, 2008; Van Arsdale, 2008; Welsh, 2007). Wikis have also been used to record and organize reminders, updates, answers to frequently asked questions, notes about training sessions, and subject-librarian recommendations (Clark & Mason, 2008; Farkas, 2007; Kille, 2006).

Clark and Mason (2008) wrote that their efforts to turn their staff into an active community of wiki users “improved the library’s front desk employee satisfaction, training and knowledge management, which in turn has improved service to students, faculty, and staff” (p. 130).

Another variety of social software, blogs, has been widely adopted by librarians. Draper and Turnage (2008) used listservs to distribute an 18 item survey about blog use in libraries. They reported that 35 of their 265 respondents “had an array of uses [for their blogs] including internal communication, posting book reviews, posting LibQUAL comments and posting patrons’ suggestions” (p. 19). Some librarians have adopted more robust solutions and employed course management software to deliver staff training and organize communications (Epstein, 2003; Jetton, 2009).

While the literature contains several reports of librarians who have implemented one or two social software technologies to enhance communication, make it easier for staff to find important information, or deliver training, there are few that document how a spectrum of social software applications can be leveraged to help achieve all three of these goals. Reports of that nature have value because no single social software application can do what the entire spectrum can and because there is educational and motivational value in exposing...
staff to a variety of technologies they can employ in multifaceted ways (Solomon & Schrum, 2007). In the remainder of this article we describe how K-State Libraries’ General Reference Unit has employed a variety of social software and social-software-like technologies to manage and train staff. We also present the results of a survey used to gather staff feedback about this approach.

**K-State Libraries’ Approach**

**Background**

Kansas State University’s Library system (K-State Libraries) serves a population of more than 27,000 undergraduate students, graduate students, faculty and staff. The system’s main library, Hale Library, consolidated its public service points at the end of the spring, 2009 semester. It now has two public service desks: a reference desk in its Special Collections space and a circulation/reference desk on its main floor in the most active section of the library’s Learning Commons. The latter desk (the Help Desk) is staffed 83 hours per week during the Fall and Spring semesters and 69 hours per week during the summer. During each of those hours, the desk is staffed by three or four individuals, at least one of whom is not a student employee. During slow times (e.g., Thursday evenings, Saturdays, Sunday afternoons) staff at the desk operate K-State Libraries’ IM reference service in addition to fielding in-person, e-mail, and phone queries. At all other times, the IM reference service is staffed by one or two individuals working from their office or from home.

Currently there are a total of 32 individuals (12 students, 20 staff) who work shifts at the Help Desk or who operate the IM service off the desk. While all these students are administratively housed within K-State Libraries’ Circulation Unit or General Reference Unit, the same is true for only six of the 20 staff. The remaining 14 have primary appointments in other units or departments. Further adding to the diversity of the individuals providing Help Desk or IM Reference service is the fact that all the students and four of the staff are part-time. All 32 individuals work at least four hours of shifts per week. The vast majority work six to ten hours of shifts each week. While some staff at the desk specialize in circulation and reserves and others specialize in reference, all handle basic inquiries pertaining to any of those services. Collectively they are expected to be able to provide excellent service and fully answer all general, routine questions. When difficult situations arise or complex reference questions are asked they are expected to refer the patron to a Circulation supervisor, one of K-State Libraries’ subject librarians or another appropriate expert.

The complexity of the staffing model and the breadth of functions supported by staff working at the Help desk present the managers and assistant managers of the Circulation and General Reference Units with a number of challenges. These include (1) training staff and students on a panoply of systems, procedures, policies, and informational desiderata; (2) keeping them apprised of new developments; (3) coordinating schedules and shift trades or substitutions; (4) managing and keeping track of progress on special projects; (5) providing staff with reliable means of referring questions and recruiting additional people to come to the Help Desk; and (6) providing staff with a way to pool knowledge about how to respond to difficult questions and situations. The search for solutions to these challenges has led them to adopt an approach to training and management that combines in-person training sessions and meetings with a variety of online tools and resources that can be accessed anywhere at any time.

**Previously Adopted Social Software Solutions**

A number of the social software applications they are employing to address these challenges had been adopted and used extensively by K-State Libraries’ General Reference Unit prior to the consolidation. These include K-State Libraries’ Wiki, which is powered by the Mediawiki engine; K-State Libraries’ Public Services Blog and GenRef Trade Bazaar Blog, which are hosted by TypePad; Google Docs; delicious, a social bookmarking tool; Jing, a simple tool for creating and sharing screenshots and screencasts; and Libstats, a reference tracking database that has several wiki-like and blog-like features. Fritch, Theiss-White, and Coleman (2008) provided descriptions and screenshots of these technologies and discussed how they
were being used to augment training and improve communication among staff and students working at the Hale Library’s Help Desk and Hale Library’s Reception Desk.

These technologies are still being used for the same purposes they were prior to consolidation. In addition, several have begun to be used for other functions. The wiki remains a vital compendium of up-to-date policies and procedures, lists of answers to frequently asked questions, training outlines, and training documentation. In recent months the General Reference Coordinator has used the wiki to create and organize lists of competencies required for the consolidated desk. K-State Libraries training team is currently using it both to inform staff about a series of training sessions required of all staff who will work the Help Desk and to provide them with a mechanism for signing up for the sessions. In coming months, the wiki will expand rapidly as the Circulation Unit develops pages for its policies, procedures, and training documentation. The Public Services Blog is still being used to record tips, news, and reminders and the Trade Bazaar Blog remains an extremely vital means for staff to negotiate shift coverage and trades. Reference specialist shift schedules are still created, distributed and edited as a Google Doc spreadsheet. Delicious is still being used to bookmark sites with information that staff find potentially useful for answering reference questions. Jing is being more widely adopted as a method for showing patrons and other staff how to search databases or navigate the library’s home page. And Libstats continues to serve as a robust record of what patrons are asking at the Help Desk, when and through what means they are asking it, and how staff are responding.

Newly Adopted Social Software Solutions

Libraryh3lp: K-State Libraries replaced its previous platform for operating its IM reference service, Meebo, with Libraryh3lp in September 2008. The main impetus for making the switch was the fact that Libraryh3lp allows operators to transfer chats among themselves and places no limit on the number of operators who can simultaneously monitor incoming traffic (Sessoms & Sessoms, 2007; Theiss-White, Dale, Fritch, Bonella & Coleman, 2009). However, shortly after adopting the new platform K-State Libraries reference staff began using it to communicate among themselves. Because Libraryh3lp’s operator interface (fig. 1) includes a list of all other operators who are currently logged on, it is possible for staff working at the Help Desk to use the interface to determine which other staff in the building are available to come to the Help Desk, receive a transferred IM session, or provide quick advice or information. Precisely because Libraryh3lp can facilitate rapid networking, the General Reference Coordinator has been encouraging all staff trained in reference to log in as an operator whenever they are at a computer and are willing to be interrupted.

The ability of staff and students to rapidly connect with each other has a number of benefits beyond that of elevating service quality. First, it enhances safety -- and concomitantly a sense of security -- by providing front-line staff with a relatively covert way to report abuse or discomfort. Staff receiving communications of that nature are trained to approach the desk and ask the person who sent the communication to perform a made-up errand or attend a made-up meeting. Second, by assuring novice staff that experienced staff will be constantly available for consultation or assistance, K-State Libraries General Reference Coordinator has been able to allay anxieties that might otherwise prevent staff from volunteering to work shifts. Third, the ability to send urls and documents through the chat interface provides a way for the Help Desk’s managers to rapidly direct staff to policy and procedure documents. This enables managers to remain fully connected to staff even when they are away from the
library. Fourth, by reviewing the content of the chat transcripts, the General Reference Coordinator is able to evaluate the training program and identify topics that need additional explanation.

Google Sites: Google Sites are free websites that can be created with any Google account and shared with any number of other Google account holders. As with Google Docs and Google Groups, the site creator can specify whether the site is private or public and can control who has editing rights. Anyone with editing rights can add new pages to the site and alter the content of any of the pages. Fortunately only the site’s owners can delete pages or delete the site itself. This relatively fine-tuned control over access, the ease with which new pages can be created, the 10GB of free storage provided, the ability to edit with a wysiwyg editor, and the fact that Google Accounts can be created with names of groups are all factors that make Google Sites an appealing option for a work team looking for a collaborative workspace.

Every page (for an example, see figure 2) has an identical six-part layout: (1) Google’s navigation bar, which provides ready access to other members of Google’s family of sites; (2) Google Sites’ editing bar; (3) a header with an image and a search box; (4) a sidebar; (5) a main content area, which varies from page to page; and (6) a footer, which shows subpages, attachments and comments. Google Sites’ site layout interface (fig. 3) makes it easy to control whether or not the site will have a header or sidebar, the width of the entire page, the height of the header, and the width and placement of the sidebar. The create page interface (fig. 4) provides the ability to specify that the page be a basic web page, a dashboard page (which is a customizable collection of widgets), an announcements page (essentially a blog), a file cabinet (a list of links to documents and web pages), or a list (a table). This interface is also used to name the page and specify where it is located in the site’s structure. The edit page interface (fig. 5) contains a basic set of editing icons and four menus: an insert menu for placing images, links, Google docs, and/or gadgets; a format menu for controlling the appearance of text; a table menu for inserting and changing tables; and a layout menu for controlling the number of content columns in the content area of the page.

In December 2008, K-State Libraries Service Coordinator created a Google Site (halegenrefstu) as a work and communication space for the team of General Reference student employees he supervises. After creating a home page, a few basic content pages, and implementing examples of each of the five types of pages available in the site, he shared the username and password with all the students and encouraged them to contribute to the site and check it at the beginning of each shift. Over time the site has become the principal means through which the Service Coordinator provides news and updates, assigns projects, records minutes, and accesses the documents and files students create in the course of their work.

The site, which is constantly growing and changing, currently contains a homepage (fig. 2), nine second-level pages, and eight third-
level pages. Every page has a sidebar with a navigation menu, a reminder, and an automatically generated list of recent site updates. The Service Coordinator edited the navigation menu so that it shows only the most important pages on the site. The site’s homepage is a dashboard page with two widgets, each of which displays the five most recent posts on one of the site’s announcement pages. While most of the site’s other pages are used only occasionally (e.g., roster page, pages for meeting minutes, emergency contacts), several are accessed by the students and Service Coordinator almost daily.

Perhaps the most important page on the site is the General Reference Superstars II blog (fig. 6). The Service Coordinator uses this blog to record important updates and reminders. He has instructed the students to use the blog as they wish. He chose not to limit or dictate uses so that it could grow organically and adapt to the students’ needs. While they were initially slow to adopt it as a communication vehicle, they have recently begun to use it to pose questions of each other and the Service Coordinator, to record procedures, and to share whimsical observations. In the future, the Service Coordinator plans to follow the previous student supervisor’s lead and use the blog as a vehicle for discussing key readings (Fritch, Theiss-White & Coleman, 2008).

The site’s second blog is the Shift Trade blog (fig. 7). At the beginning of each semester the Service Coordinator establishes a set weekly schedule for the General Reference Students. Whenever any of the students has a shift they cannot (or would prefer not) to work, they use this blog to request substitutes or trades. A student indicates his or her willingness to cover the shift by posting a comment. When all portions of the posted shift are covered, the student who initially requested the trade edits the post by inserting the word “COVERED” at the front of the post’s title. This makes it easy for the Service Coordinator and the students to scroll through the blog in search of shifts that still need coverage.

Another key page on the site is the Files page (fig. 8), which is based on Google Sites’ file cabinet template. The Service Coordinator uses the Files page as a portal to Google Docs and Spreadsheets, some of which were created from the same Google account that the site was created and some of which were created from the Service Coordinator’s own Google Account. The former group includes documents and spreadsheets the General Reference Students use to conduct individual or group projects. Examples of items belonging to this group include a spreadsheet used to inventory...
the contents of Hale Library’s current periodicals shelves, a spreadsheet used to compare Hale Library’s holdings to the content of various online databases, and a spreadsheet used to keep track of the operating hours for each of the service points in Hale Library. The latter group includes a spreadsheet named Daily Tasks which the General Reference Students use to keep track of which of a group of daily tasks remain to be done and to record who did each task for the day, and a spreadsheet they use to inform the Service Coordinator of occasions when they forgot to clock in or out at the proper time. Just as the site’s blogs have become indispensable to communications among the Service Coordinator and the General Reference Students, the Files page has become vital to project management and record keeping.

In the near future, the Service Coordinator plans to use the site as a place for him and the students he supervises to create and refine training documentation that will ultimately reside on K-State libraries’ official wiki. By engaging his students in the creation of these materials (which will be used to cross-train students in the Circulation Unit) he expects that their own knowledge will increase and that the resulting materials will be better than those he would have created by himself. He also plans to ask the students to present the students with a list of emerging Library 2.0 tools (via a spreadsheet linked through the Files Page), have them use Jing to develop narrated screencasts that describe the tools, and then upload these screencasts to the General Reference Superstars II blog. He will then periodically upload exemplary screencasts to a blog widely read by K-State Libraries staff (Talking in the Library). This project will help them develop screencasting skills, increase their knowledge of emerging tools, and showcase their creativity and knowledge to the Libraries staff.

**Evaluation**

K-State Libraries’ General Reference Coordinator, Service Coordinator, and former General Reference Student Supervisor have implemented a wide array of social software applications over the past two years. They are enthusiastic about these tools because they have streamlined many of their management processes, eliminated the pernicious problem of duplicate versions of policies and procedures, established searchable collections of answers to common and rare problems, and enabled the staff and students they supervise to establish virtual communication networks. On the basis of these outcomes alone, they recommend that other libraries add social software to their box of tools for managing, training, and communicating with staff.

In the interest of determining what their staff and student employees think of these tools, how often they use them, and what they think of the General Reference Unit’s practice of using them for management, training, and communication, they created a seven question, anonymous survey and sent it to all thirty-four of the staff and student employees who use those tools. Nineteen of the thirty-four individuals completed the survey.

The survey question that most directly addressed their evaluation of the tools asked them to rate six tools on the extent to which they found them useful for acquiring information or accomplishing their work-related goals. The use of Google Docs to create and share the work schedule was rated the most favorably of the six tools with 89% of the respondents indicating they found the tool extremely useful. Libstats (68%) and the Trade Bazaar blog (59%) also received the highest rating from the majority of respondents. The GenRef Google Site for students was rated next high-
est, with 50% of those familiar with the site rating it as extremely useful, and 33% rating it somewhat useful. Both the K-State Libraries' wiki (39% extremely useful, 59% somewhat useful) and Public Services blog (25% extremely useful, 19% somewhat useful) received only moderately favorable responses.

The other two questions that gathered evaluative feedback were both free response. The first of these asked respondents to indicate what they like most about the General Reference Unit’s focus on using web-based tools for management and training. Twelve of the 14 replies identified accessibility of the tools as the most liked feature. The remaining two identified the ability to search the tools as the most liked feature. The second question asked respondents what they like least about the General Reference Unit’s focus on using web-based tools for management and training. Three of the nine responses mentioned the need to remember special logins and passwords. Two mentioned difficulty remembering where to find them. Two mentioned that they would like more training on how to use the tools. One mentioned that they did not like Libstats and the trade bazaar. The last was actually a positive comment: “Nothing. I much prefer this to paper schedules used at previous jobs.”

Overall, these responses suggest that staff and students have a realistic appraisal of the virtues and pitfalls of social software solutions. Their highest ratings went to the tools that were most instrumental to their work and their lowest ratings went to tools that currently function more as archives that are occasionally accessed. This pattern of evaluations and the content of the comments suggest that it would be beneficial to more tightly integrate the disparate tools and develop a mechanism for accessing all of them through a single-login. One obvious solution is establishing a Google Site to serve as a portal to staff tools. We will explore that possibility in the near future.

**Conclusion**

Anyone cursorily familiar with the operation and management of a reference desk in a large library would likely attest that it is cumbersome. Trying to keep a large team well-trained and informed is difficult, especially when their schedules do not overlap, they have primary appointments in units from all parts of the library, and they work only a few shifts each week. While some libraries might have budgets sufficient to tackle such problems by developing a large pool of managers who have the luxury of dedicating all of their time to training and communicating with their staff, the vast majority do not. Reference managers employed in libraries that want to maintain extensive service hours and provide quality service, even as budgets and staff size shrink, need to maximize efficiency and leverage the willingness of their staff to share their expertise. In this article, we have identified a number of tools that can help managers do precisely that.

We advise any managers considering this approach to start small, perhaps by introducing a blog and demonstrating that it can drastically reduce the number of e-mails the staff receive. By posting to the blog frequently and encouraging staff to use it as a forum to ask questions, interest in the blog will be high and staff will likely become accustomed to checking it daily. Once that transformation occurs, we suggest introducing a wiki and using it to replace as much of the paper-based material as possible. With the good will that these two social software applications will bring, we suspect that staff will be open to considering other slightly less common, but extremely useful applications such as Google Sites, Jing and Libstats. Provided that each new application is implemented with the goal of making jobs easier, encouraging open and honest communication, and valuing staff creativity and passion, it is extremely likely that service quality and morale will improve. What is guaranteed is that they will never again want to return to a reliance on paper, phone, and in-person meetings.
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