Managing the reference desk online

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Abstract

Communication between reference librarians is vital for the provision of enhanced reference services. This article discusses the creation and application of three Web-based tools that allow librarians to offer quick answers to questions posed on the library's e-mail reference service, to easily share news and ideas with each other between reference desk shifts, and to be actively involved in the scheduling of reference desk shifts.

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Introduction

During the summer of 1999, the full time reference desk staff of two at the Hekman Library was replaced by a team of ten librarians. Staffed over 70 percent of the time that the library is actually open, the reference desk accommodates up to as many as seven different librarians throughout the course of a day. Even though the Hekman Library is a relatively small academic library with 20 FTE staff, communication between, and team work among the reference librarians is, nonetheless, difficult to maintain. This article describes the creation and application of three Web-based tools that help promote the work of the reference desk team; these tools benefit each member of the team, but ultimately the patrons that the Hekman Library serves. These three tools are, briefly, an online reference service, a reference blog, and an online reference desk schedule.

Background

The Hekman Library serves the 4,300 FTE and 290 faculty of Calvin College and Calvin Theological Seminary[1]. The library's collection, spread over four floors, includes strengths in religion and the humanities, with over 2,600 active periodical subscriptions. Online access includes over 100 subscription databases, access to over 200,000 e-books, and over 10,000 unique e-journal titles[2]. All of the library's statistics - circulation, interlibrary loan, database and e-journal usage - indicate that the library is a well used and appreciated resource. In particular, statistics collected at the reference desk indicate that students are increasingly relying on the reference librarians to help them with their research. Library staff attribute the increase in reference queries to the introduction of the college's "Research and information technology" core course requirement[3].

The team of librarians who staff the reference desk make up the "Reference, instruction, and research" (RIR) team. Of the RIR team members, only one is designated as a reference librarian only: the rest have other primary designations, including head librarian, acquisitions, cataloging, digital resources, government documents, and theological librarian. Almost all RIR team members are also library liaisons to the college's academic departments. Each member of the team spends

between 15 to 35 percent of their work-week at the reference desk.

Communication among RIR team members is facilitated through bi-monthly meetings, e-mail contact, and relatively close proximity of team member offices, i.e. in the same building and not spread throughout the 390 acre campus. Even so, as the library's reference service moved to a team environment, communication between team members often posed a problem: meetings got cancelled or members were absent; messages were often shared through e-mails, but the e-mails were not necessarily read within a reasonable amount of time, if at all. Questions posed to the library's online e-mail reference service sometimes went unanswered for days at a time while they languished in the e-mail inbox of the reference librarian waiting to deal with them. Comments and questions left for other librarians at the reference desk often went unnoticed or ended up in the garbage. And the weekly reference desk schedule, posted on paper at the desk and marked in pencil with various shift trades, resulted in frequent missed shifts as the librarians could not easily view the schedule from their office or from home.

To tackle this communication conundrum, the digital resources librarian, with the help of the library systems programmer, began to investigate how online technology could help. The three Web-based tools that resulted allow all the reference librarians to communicate with each other, to offer timely responses to the growing number of e-mail reference queries, to miss as few reference desk shifts as possible.

Hobbes – content management system

Before describing these three tools in detail, it will be helpful to briefly discuss the library's online content management system in which these three tools reside. Since the summer of 2001, the Hekman Library has been creating and maintaining Hobbes, a series of interconnected MySQL tables accessible through a secure login that authenticates to the college's LDAP server. As a Web-based content management system, Hobbes is designed to help with the maintenance of the library's Web site, and aid in the workflow of all Hekman library staff. Some of the many tools in Hobbes include databases that populate the library Web site with dynamic data, including those for research databases, microfilm holdings, entries in the A-Z index of the library's Web site,

staff directory pages, and library hours, to name a few. Hobbes also includes resources created for librarian use only: password storage, library meeting minutes, library statistics (entry and reports), a page of library news items (through RSS feeds), and various instruction pages, again to name a few.

As more and more tools were added to the Web-based Hobbes, the RIR team members increasingly began to log into Hobbes from their offices, from the reference desk, and from home, in order to complete some aspect of their work. It soon became apparent that the communication challenges mentioned above could be addressed within Hobbes.

Hobbes is now an integral part of a typical reference desk shift. Each time a reference librarian logs onto the reference desk computer, he also logs into Hobbes through the Web browser. Along the top of Hobbes is a series of tabs that offer access to various Hobbes' tools. The default Hobbes tab for the reference librarian is the "RefDesk" tab, comprised of Ask a librarian data on the top half, and the RefBlog on the bottom half (Figure 1). There is also a tab for the dynamic Reference Desk schedule.

Ask a librarian – e-mail reference

Online reference, and how libraries address this issue, is by no means a neglected topic in library literature; indeed, it seems that most North American libraries offer some sort of "online" reference, everything from placing a contact e-mail address on the Web site to an instant messaging (IM) reference service offered 24/7[4]. The Hekman Library e-mail reference service (Ask a librarian), perhaps stands out from other similar services since it is not simply an online form sent as an e-mail to a librarian's e-mail account, and is not quite a virtual reference. It is something in between.

Considering the relatively small size of the Hekman Library, including its staff and the number of patrons served, the RIR team decided that the resources did not exist to support a virtual reference service using IM. For three years, from 1999 to 2002, the library relied on an online form (Figure 2) that was sent as an e-mail to a designated member of the team. There were several challenges that stemmed from relying on this system. First, even though all RIR team members were committed to helping the designated Librarian answer the Ask a librarian questions, statistics showed that the designated

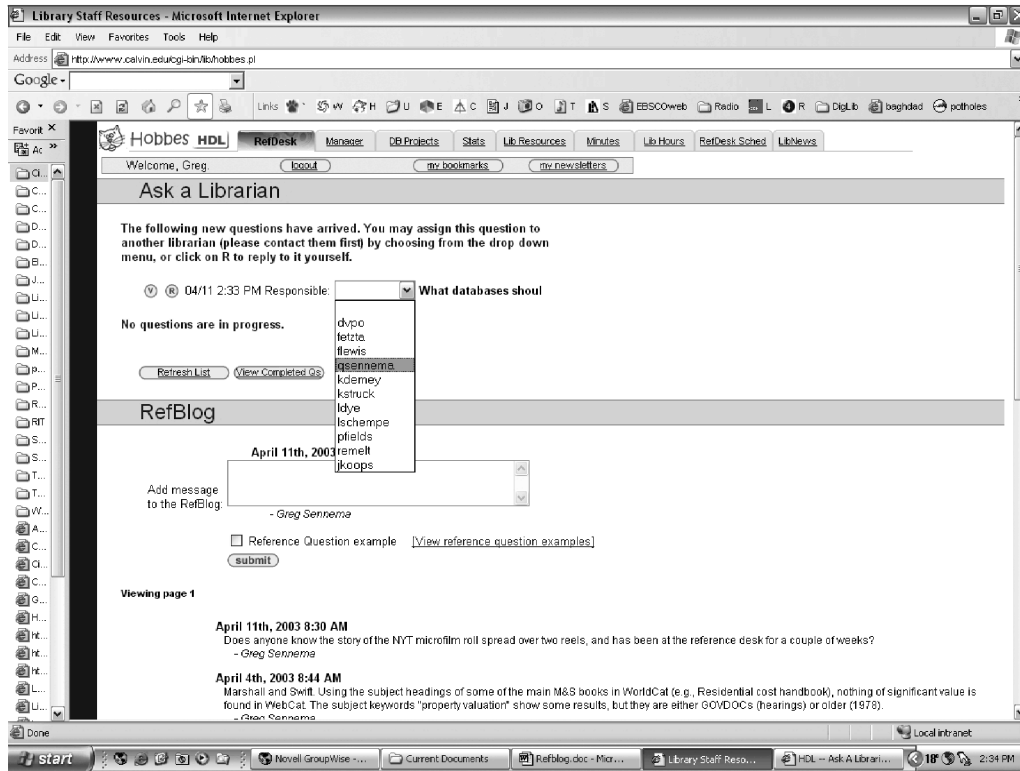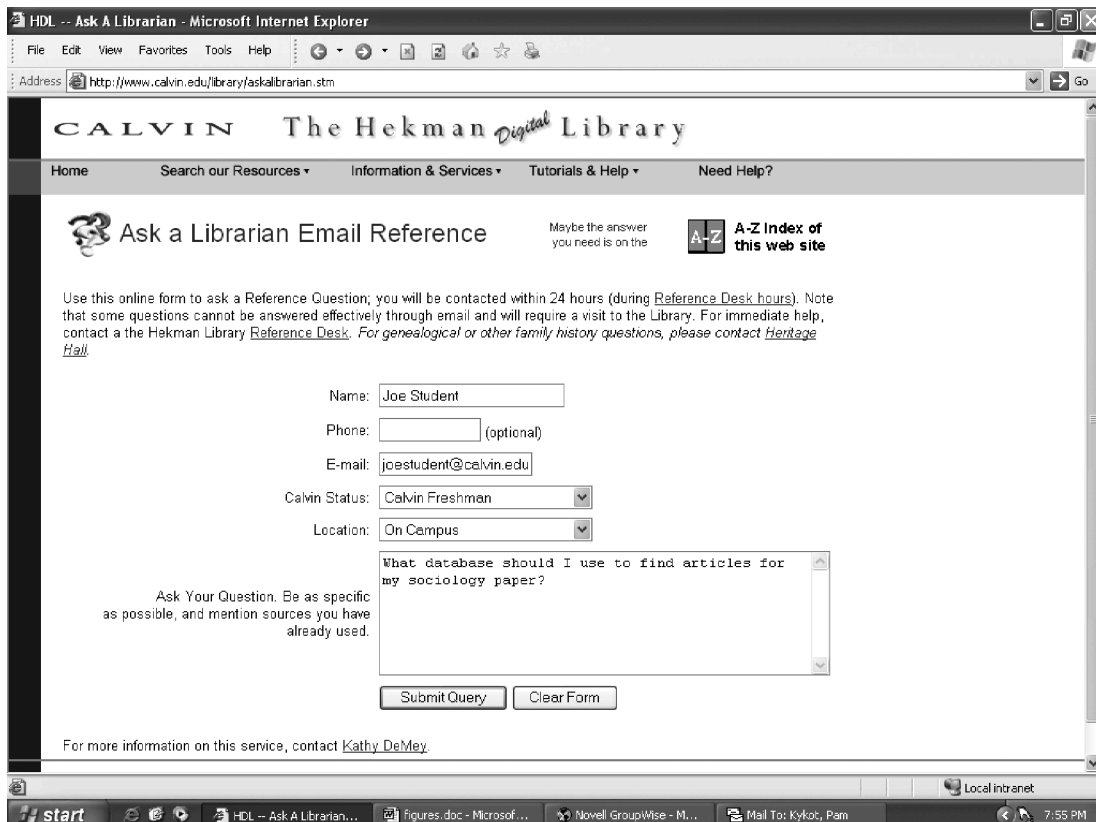**Figure 1** Default Hobbes' homepage for reference librarians

Figure 2 Ask a librarian form

Librarian ended up answering a significant portion of the incoming questions. Second, the task of changing the online form to have the e-mailed questions sent to an alternate team member each time the designated librarian was out of the office was not always completed, resulting in questions that went unanswered for days, in some cases weeks. Finally, and related to both issues mentioned above, the average turn-around time for the answers tended to be longer than the advertised "two business days." It became clear that the RIR team would need to address these issues if it wanted to continue offering this service.

In the summer of 2002, the RIR team began investigating how best to address these issues. A virtual reference service had already been ruled out, so the team determined to make the current system more robust. Specifically, Ask a librarian questions needed to be quickly and easily shared among the team members, and they needed to be answered more quickly. The RIR team considered, but ultimately decided against, having each Ask a librarian question be sent to each team member's e-mail account since it would be difficult to effectively determine who was answering what question. The challenge was to somehow direct all the Ask a librarian questions to the team member on duty at the reference desk, thereby bypassing the problem of directing them all to one librarian who might or might not be at work that day, and helping to reduce the average turn-around time from over two days down to several hours, even minutes.

Two possible solutions emerged. The first was to create a unique reference desk e-mail account that each team member would log into while at the desk. The second was to create an MySQL table within Hobbes, into which every submitted Ask a librarian form would be sent. While both solutions would address the issue of ubiquitous access and timeliness, placing it into the context of Hobbes had two immediately recognizable benefits that ultimately made this the desired solution. The first was that the librarians were already logging into Hobbes on a regular basis; creating a separate GroupWise account would require yet another login destination for RIR team members. And second, Ask a librarian statistics, including the lapsed time between when the question was posted and answered, could be recorded automatically in Hobbes. With a reference e-mail account, the lapsed time would have to be manually determined from every individual e-mail message, not to mention the time required to input this and other statistical data into the Hobbes statistics module.

Each time a team member begins a reference Desk shift, he opens a Web-browser and logs into Hobbes. The default Hobbes tab "RefDesk" is displayed (see Figure 1), and a question posed using the Ask a librarian form (see Figure 2) is displayed at the top of the screen. When the Ask a librarian service was first incorporated in Hobbes, it was initially designed so that an Ask a librarian question was automatically assigned to the first librarian who logged into Hobbes. However, one of the intentions of putting the Ask a librarian service within the context of Hobbes was that the librarian on duty at the reference desk should be the first point of contact between a new question and a librarian. Automatically assigning it to the first librarian who opened Hobbes after a question was sent meant that those opening Hobbes in their office would be assigned the question.

Currently, when a question arrives in Hobbes, it is initially unassigned. The first step the librarian takes is to quickly read the question and assign it to one of the RIR team members. In most cases this will be the initial librarian who reads the question. However, if the question falls in an area of expertise of another team member, it can be assigned to someone else (usually after consultation). It is important that the reference librarian assign a question to a particular RIR team member quickly because another team member would, if he happens to log into Hobbes and see an unassigned question, assume that it is unassigned and assign it to himself.

To answer the question, the assigned librarian clicks on the small R (for reply) next to the question. A form within Hobbes opens with the space for the answer (Figure 3). Once the answer is complete, the librarian clicks "send e-mail," and the answer is e-mailed to the address posted along with the question. To the patron who asked the question, the answer arrives as if from the team member's e-mail account (as defined in Hobbes when the librarian logs in), and any follow-up questions to the original are dealt with between the patron's and librarian's e-mail accounts. The biggest challenge to this system is that it requires that each librarian staffing the desk must constantly check Hobbes for new questions. This is no small consideration since the reference librarian can be very busy answering in-person and telephone questions the entire shift. In

Figure 3 Answering a question in Hobbes
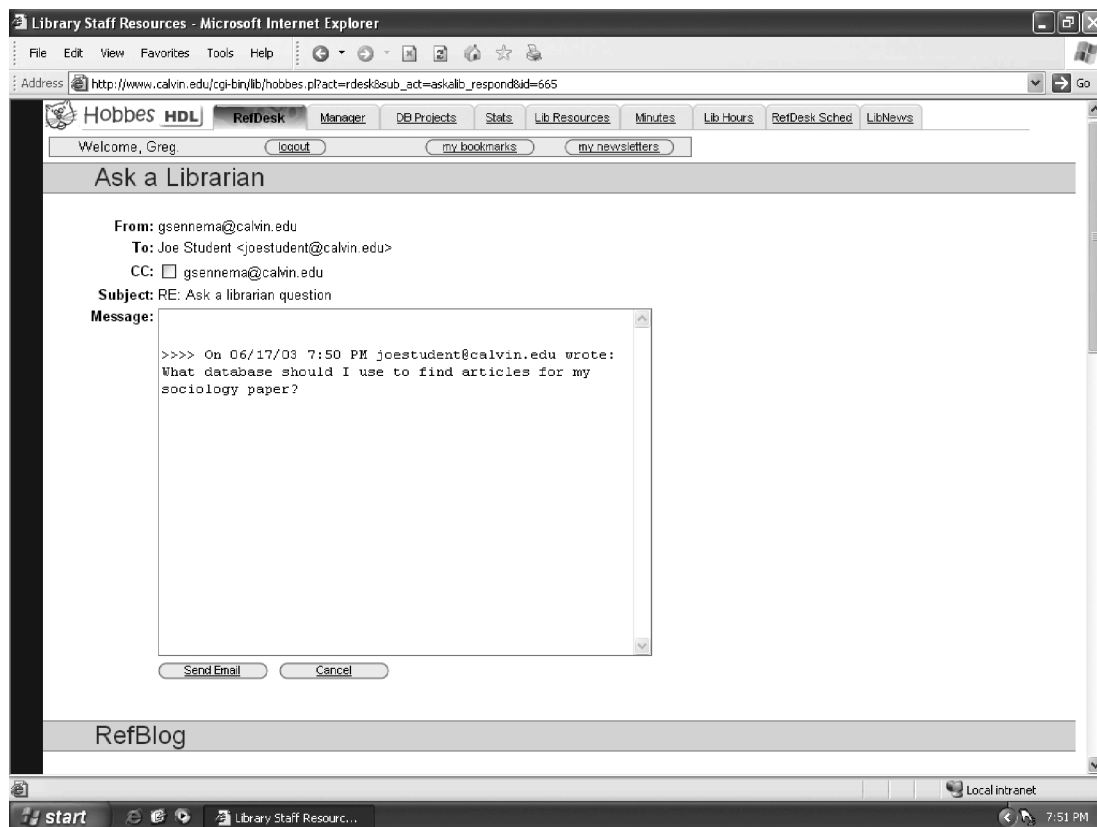
theory, the reference librarian is to check Hobbes at the beginning of each shift, and every hour on the hour during the duration of the shift. A reminder is physically attached to the monitor, as well as the screensaver on the reference desk PC monitor. In the end, it was decided that even if the reference librarian became too busy to check, or forgot, to check Hobbes, that the odds of at least one RIR team member logging into the system at one point during the day were still higher than if the Ask a librarian questions were sent directly to a single RIR team member's e-mail account.

Knowing that the Ask a librarian questions are being answered in a timely fashion, the RIR team advertises the service more aggressively during bibliographic instruction sessions. As each Ask a librarian question is completed, statistical data are automatically compiled. Statistics indicate that the average turn-around time for questions is around six to seven hours; 25 percent of the questions answered in less than an hour, and nearly 60 percent are answered within three hours. This increase is even more important considering that the number of questions posed has increased by over 30 percent over the previous year.

Refblog

A few examples of entries to the Hekman Library RefBlog, a Weblog created for use by RIR team members include:

- "Has anyone seen the reference desk copy of the student directory?"
- "Be aware that students taking HIST323 need to find primary sources of information on the civil war. I have pointed a few in the direction of *Making of America*"
- "Please remember that Cataloging will only rush in process materials for current Calvin College staff, faculty and students."

After moving to a team environment, the RIR team members who shared reference desk duties sought out a way to share experiences, sources, news items, and other information since they did not see each other often between reference desk shifts. To facilitate communication, a three-ring binder (also called Hobbes, a precursor to its online progeny) was created in which were placed course syllabi, library forms, database help sheets and, most importantly, a running commentary of entries made by the RIR team members. This running commentary, of course,

will be recognized by current Webloggers as a paper form of a Weblog. Entries were preceded by date and signed by the librarian who made the entry.

As Weblogs gained in popularity in 2002, the digital resources librarian looked at replacing the "paper blog." The initial Hekman Library reference desk Weblog was created at Blogger[5], but after trying to see how this Weblog could be incorporated into Hobbes, it was determined that a homegrown Weblog could be created as an additional MySQL table in Hobbes. As shown in Figure 1, the RefBlog occupies the lower half of the default screen in Hobbes. Immediately below the text box for new additions to the RegBlog are shown the latest entries, displaying the text of the entry. Both the date and the RIR team member who wrote the entry are displayed with the text, and are added automatically based on the PC's internal clock, and the librarian's login, respectively.

At around the same time as the RefBlog came into existence, library staff started to consider how best to add a qualitative angle to all the quantitative data being collected in the form of reference desk statistics. Namely, the reference librarians wanted to start keeping a record of the kinds of questions that were being asked at the desk, and so they started adding sample questions into the RefBlog. Trying to view these sample reference questions among all RefBlog entries, however, was problematic since all the entries were intermingled. To solve this problem, a field was added to the MySQL table that marked the entry as a reference question sample. To the RIR team member, this means that if a RefBlog entry is a sample question, a toggle switch needs to be checked underneath the entry. These sample questions can, in turn, be viewed separately and pasted into Word for other purposes.

Reference desk schedule

The reference librarians staff the desk according to a preset pattern. However, between doctor's appointments, meetings, teaching schedules, and sick days, the paper schedule posted at the desk often had more pencil lead than printer ink. And as shifts were traded often at the spur of the moment, the librarians often forgot shifts after recording the change on the posted schedule, and not to their personal calendars.

Again, Hobbes came to the rescue, since it was an environment that could not only be shared by all RIR team members, but could as well be accessed from any Web-connected PC the librarian was currently working. The calendar option in each librarian's Novell GroupWise account was also considered as an option, but as with the e-mail reference considerations discussed above, this would require yet another environment which the librarians would have to log into (Figure 4).

Using yet another MySQL table, the RefDesk schedule can be accessed by clicking on the appropriate tab in Hobbes. The RefDesk schedule displays four weeks at one time, and can be chronologically navigated forward and backward. Each day of the week is separate, broken up into fields that represent various shifts throughout the day. The schedule can be changed by clicking on the name of the RIR team member, and choosing an alternate member from the drop-down list. Notes can also be added to each time slot, in which split shifts or "subs needed" can be indicated. And as with all the other tools in Hobbes, the schedule can be accessed from any Web-connected PC, and not limited to just the reference desk.

Conclusion

The online reference tools created by and within Hobbes adequately serve the needs of Hekman Library staff. Whether they could be created and used by other libraries would depend on various factors. First, and perhaps most important, is that a library would need to have access to the skill level required to create the databases to store the data, and the scripts to arrange the data into meaningful layouts. Having a full-time staff person who is able to devote time to this is important; relying on student programmers is perhaps helpful in the short term, but can also lead to problems after a student leaves. A further consideration might be that alternate online solutions are desirable. Offering a virtual reference service may be a better option for similarly sized or larger libraries. Existing calendar software may already be successfully utilized for maintaining a reference schedule.

These reference tools in Hobbes have been in use for almost a full year now, and the RIR team members are pleased with their functionality. Initially, the librarians showed some initial concern that Hobbes would become yet another Web page vying for primary as the default homepage, alongside the library's public home page, the college's BlackBoard courseware, and

Figure 4 The RefDesk schedule displays four weeks at a time
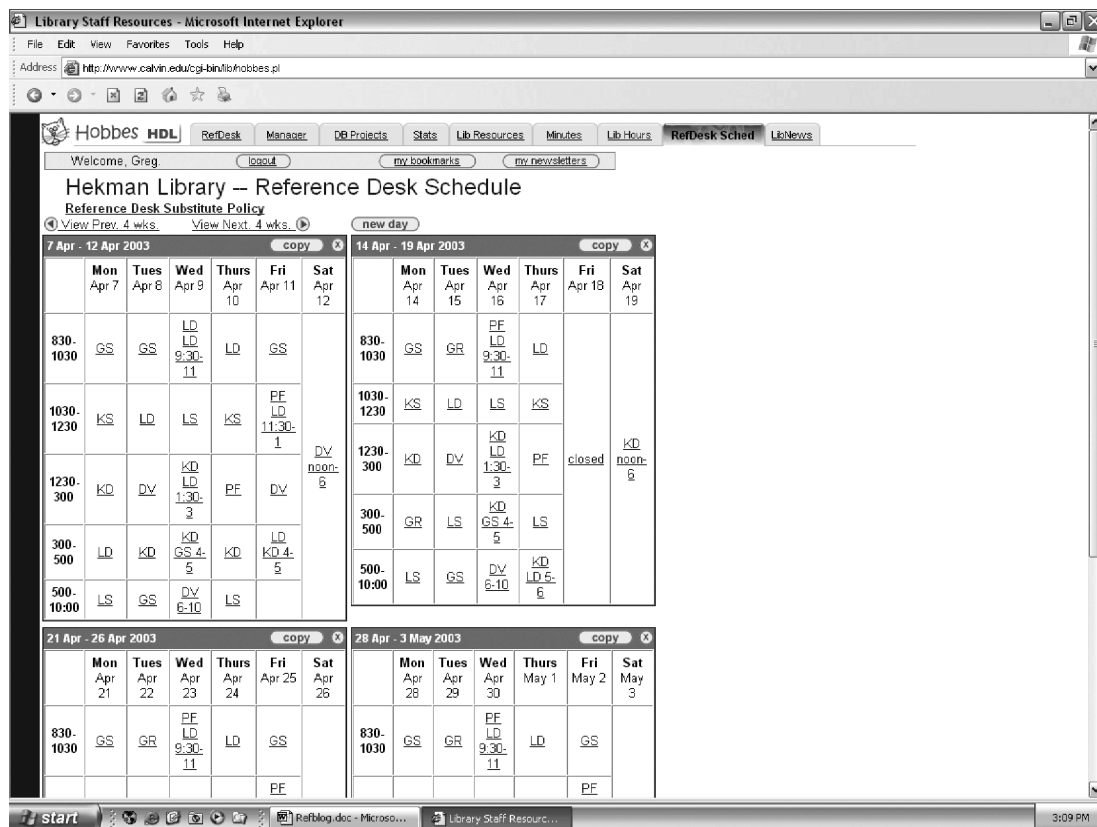
personal homepage favorites. However, these concerns have proven to be unfounded, as Hobbes can be displayed within a separate browser window at all times.

It is possible that the individual issues could have been addressed using other tools that were currently available. A unique reference desk e-mail account could have been set up; the Blog could have been set up as a Word document on the desktop of the reference desk PC; and the GroupWise calendar function could have been used to schedule the reference desk shifts. Yet having all these functions within one resource allows for greater flexibility; Ask a librarian statistics are automatically compiled, and keeping the number of programs and Web pages needed to complete their work is always popular among team members. And as more and more useful tools are added to Hobbes, it behooves the librarians - such as the ability to load personal bookmarks to be displayed within Hobbes - to log into Hobbes several times during the day. Indeed, statistics show that Hobbes is logged into an average of 31 times a day, and is quickly becoming a necessary part of each librarian's daily workflow.

Notes

1 For more information on Calvin College and Calvin Theological Seminary, visit www.calvin.edu
2 These include titles found within aggregate databases as well as e-journal titles.
3 For more on this phenomenon, see Stewart Saunders (2003)
4 For more information on this, consult Sloan (2003).
5 See www.blogger.com

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