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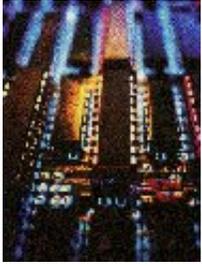
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VCU's My Library: Librarians Love It. . . Users? Well, Maybe

[Jimmy Ghaphery and Dan Ream](#)

Virginia Commonwealth University's My Library project (www.library.vcu.edu/mylibrary) has chosen "ease of use" as its primary design criteria. The development of this tool using Perl scripting is described, and reports derived from usage logs are analyzed here. My Library tends to appeal a great deal to a small number of users as a personal tool. Librarians have found it popular as a class teaching tool, with pages designed for specific classes in library instruction receiving the heaviest use.

My Library at Virginia Commonwealth University was, in part, the inadvertent result of a committee. In the spring and early summer of 1998 the library had undertaken a review and redesign of the library Web site. The committee work was difficult and often revolved around limited Web real estate on the front page. The committee completed its work and launched a new Web site, but the limitations of a static Web design for the wide variety of our users was apparent. Dan Ream, head of instruction at James Branch Cabell Library, had been exploring many of the emerging personalization tools on the Internet such as CRAYON (www.crayon.net) and My Yahoo (<http://my.yahoo.com>). In the summer of 1998, he proposed the idea of My Library as a potential solution to many of the frustrations with the Web design process. In short, why not let the users create their own interface?

One of the most attractive outcomes of a user-created interface is that the number of clicks to a variety of library databases and services could be minimized. No longer would the user need to follow one distinct path of several clicks to get to a specific database, then use a completely different pathway and set of clicks to get to another section of the library Web site. All of the relevant library information would be on one page. Further, as the library Web site inevitably shifts, the user's collection would remain in the same location.

Construction and Implementation

This was a compelling idea and also presented itself as an opportunity for Jimmy Ghaphery, librarian for instructional technology, to learn additional Web skills. Ghaphery started work on this with a strong knowledge of HTML and some experience with JavaScript. Upon consultation with the Instructional Development Center at the university, it was determined that Perl would be a reasonable language for writing a My Library program. Ghaphery assembled the first versions of My Library by relying on a variety of freeware scripts and Web sites devoted to Perl. By the middle of August we had a working prototype of what we believed was the first implementation of My Library in an academic library.¹

Even though it had been announced within the VCU Libraries, this rapid one-month development was

a bit of a surprise to the organization. In general, the project was greeted with support and a willingness to take the risk of launching such a new service. During the early fall we announced My Library on various electronic discussion lists (Web4Lib, BI-L, NetTrain, VIVA-L) and were able to test how it would respond to heavy traffic. More than five hundred people from around the world logged into the My Library test site in the first week of October. In monitoring this activity we found no problems. Further, more than sixty people took the time to write us about the service. The Internet community of librarians and Web trainers voiced enthusiasm for the service and the ease of use of the interface (www.library.vcu.edu/mylibrary/comments.html). Some of the biggest concerns were alerting users to new databases, maintenance procedures, and requests for the Perl scripts. Upon this feedback we instituted a "What's New" button that appears on each user's My Library page and developed a mechanism for sharing the code with others. On October 12, 1998, roughly three months after the initial idea, a new link appeared on the redesigned library home page that read:

My Library

Create shortcuts to your favorite library resources

The architecture for VCU's My Library is very simple. All of the user passwords, logins, and e-mail addresses are stored in a single text file. Each user has a corresponding text file that lists his choices. A single Perl script is used to register users, generate My Library pages from the user's profile, and allow the user to edit his profile. My Library is running on an IBM RS/6000 AIX Unix server with 256MB of RAM memory.

Since the launch in fall 1998, several improvements have been made to My Library. Most significantly, in spring 1999 Ron Miller, the webmaster for the McKee Library at Southern Adventist University, undertook a major rewrite of the My Library Perl script. Miller greatly improved the script by segregating the database choices into a separate file. This has made the addition and deletion of database choices considerably easier and reduced the total file size of the script. Following Miller's changes, a number of other features have been added including an automatic login option via cookie and a custom e-journal selection whereby users can select specific titles. The e-journal option was written to work in conjunction with the libraries, electronic journal database, which is powered by the commercial software Cold Fusion. For a full list of My Library features, see figure 1.

- Customizable choices of databases and library services
- Prominent choices for most popular databases
- Bookmarks of up to six Web sites
- Customizable search box (choices include library catalog, online journal search, university e-mail look-up, and Internet search engines)
- My Journals: link to customizable lists of electronic journals
- Automatic login feature via cookies
- "What's New" feature for alerting users to new choices
- Most choices (except My Journals) accessed through single edit screen
- Multiple simultaneous users

Figure 1. VCU's My Library Features

In developing My Library, a primary consideration was ease of use. We strove to let users create a personal page by traveling through as few screens as possible. Further, we allowed users to choose any login and password combination. A complicating factor for our users is that we use a proxy server to grant access to library databases from remote locations. The proxy service is not integrated into the My Library system, which thus requires My Library users from off-campus to first log in to their My Library page and then log in to the proxy server for authenticated access to the library databases. While we have not yet reached the goal of a single login for all library services regardless of location, one of the first upgrades to the My Library system was to enable a cookie login so that users could automatically log in to their My Library page.

Use of My Library

By June of 1999 there were 1,175 registered users for the My Library service. Of these, 199 had not accessed their accounts within six months and were moved out of production and into an inactive area. In looking at the e-mail addresses, 93 accounts were from .edu addresses other than the VCU domain (guests testing the service who had wandered into the production database). More than half of the accounts, however, did have an identifiable VCU address (.vcu.edu). In the late summer a more obvious guest access link was instituted in an effort to steer guests away from the production database.

In fall 1999, a full year after the initial release of My Library, a log file was added in an effort to better understand and measure the use of My Library. The log file was very simple, recording the unique username of the user, time and date of access, IP address, and the mode of access (log in through password box, log in through cookie, edit or creation of a page, or edit through the e-journal option). Analysis of the log file has yielded an interesting portrait of My Library use.

Over a six-month period, October 1999 through March 2000, there were 8,393 entries in the log file from 840 unique users. Logins to My Library accounted for 7,290 entries from 663 users and edits accounted for 1,017 entries for 581 users.

More telling perhaps is who was not registered in the log file. During the six-month period, 1,486 accounts were not accessed. Of these, 11 percent (169) were clearly guests who registered with an e-mail from another educational institution (i.e., towson.edu, richmond.edu). Nonetheless, 51 percent (752) of the inactive accounts had e-mails that could be tied to the VCU domain. The remaining 38 percent (565) of inactive accounts are from .com addresses (i.e., hotmail.com, aol.com). Without surveying these users (.com addresses) it is impossible to determine how many are affiliated with VCU. Regardless, it is safe to say that a significant percentage (at least 51 percent) of the inactive accounts are from VCU faculty and staff. One factor that inflates these figures is that many students in library instruction sessions in spring 1999 were encouraged to set up My Library accounts. Therefore, all of the inactive accounts are not necessarily representative of users who voluntarily set up a My Library page.

In looking at the active accounts that had been accessed in the past six months, one begins to see a pattern in which a small percentage of the users account for the majority and frequency of logins. A

mere 12 percent of the active accounts logged into their My Library pages at least twenty-one times in the past six months, accounting for 60 percent of the total logins. Conversely, almost half (47 percent) of all of the active accounts only logged into their My Library pages between one and three times during the six-month period.

The same pattern holds true when the log data excludes accounts that were set up for entire classes (which might bias the statistics in favor of return visits). Without the class accounts, 48 percent of all of the users visited their page between one and three times (9 percent of all logins). At the same time, 9 percent of all of the users logged into their pages more than twenty-one times, which represents 44 percent of all of the logins (see table 1).

Table 1. Return Visits to VCU's My Library

No. Return Visits*	Users No.	%	Total logins* No.	%
1-3	312	48	479	9
4-10	186	29	1,152	22
11-20	88	14	1,274	25
More than 21	58	9	2,313	44
<i>*Excludes class accounts</i>				

This pattern of disinterest by the majority of users also is seen when looking to the number of edits in the log file. There were 177 new accounts created during the six-month period that were subsequently never visited. The option of creating a custom list of e-journals was only used by forty-two users (5 percent of all active accounts). Thus, while we first believed that My Library would be an ideal solution for all of our students and faculty, it appears that only a small percentage have found it to be an enduring access point for their research. It is, however, encouraging how often this core group of users have taken advantage of My Library.

Other patterns in the log file were less surprising. Traffic into My Library peaked at predictable times in the middle of both semesters (November and February). A healthy percentage of use (30 percent or 2,523 accesses) came from off-campus through the library proxy server. There were 197 users who accessed their My Library page via cookie for a total of 1,278 logins, whereas 466 users accessed their pages through entering a login and password, accounting for the remaining 6,012 logins.

My Library as a Teaching Tool

VCU's My Library, though first conceived as a tool for individual library users, has instead proven to be most popular as a library instruction tool. Popular first with the librarians, who can create a specific page in minutes - with no HTML editing difficulties - for each class they teach; and then popular later with the students and professors the librarians teach, whose heavy use of these pages has proven time

and time again that classes like coming back to a single page to find all the relevant resources for their research assignments. Between October 1999 and March 2000 there were 2,072 logins through class accounts set up in library instruction sessions and nineteen class accounts (for business, psychology, education, and other disciplines) represent 28 percent of all logins, at an average of 106 logins for each class account. With class size averaging twenty-two, that averages just under five uses per student per semester for these pages.

When used as a teaching tool, the layout of the My Library page somewhat shapes the instruction session. Students are introduced to My Library with the analogy of it being like their own shelf in the library where all their favorite resources can be found every day. Better still, this "shelf" is available almost anywhere they can access the Web. Limitations to database access, such as at computers where proxies cannot be set (i.e., most public schools in our central Virginia area) are also explained and the process of proxy setting is shown. Though the ability to set a proxy is not necessary for creating a My Library page, it is essential for accessing the full-text (and other) databases themselves. Class instruction for My Library pages usually uses the class's course number (such as TEDU556, see figure 2) as the login and the professor's last name as the password. These are given in a handout that also shows the URL of the login page itself (www.library.vcu.edu/mylibrary). No other handouts are then necessary for showing where resources can be found on the library's many Web pages.

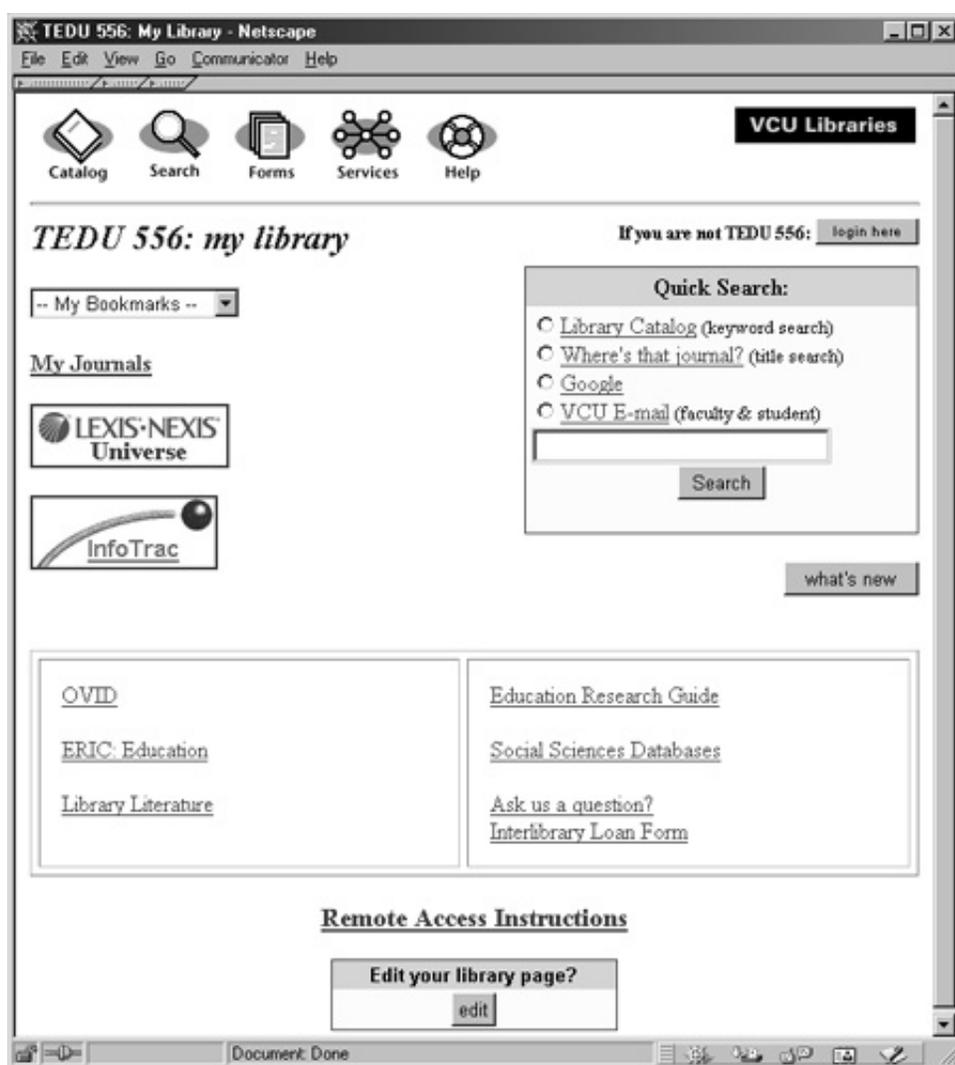


Figure 2. My Library as a Teaching Tool

Next, bookmarks to up to six Web sites chosen specifically for that class's research needs are briefly shown, followed by full-text databases, also found at the top left of our My Library pages. This nicely corresponds to the resources in which students express the greatest interest: Web resources and full-text databases. We often describe the latter resources as the "HBO" or "pay channels" of the Internet and thus try to get across their cost (to the library) and value (to the students) of these full-text journal resources. Instruction sessions then typically review the resources at the top right of the My Library page, such as the library catalog (<http://exlibris.uls.vcu.edu:97/webpac-1.2-bin/wgbroker?new+access+top.notislms>) and the Online Journal Search page (www.library.vcu.edu/ejournals/index.html), which allows students to see if particular journals are found full-text in any of our full-text aggregator databases such as InfoTrac, Lexis/Nexis, or Dow Jones. In My Library this tool bears the label of "Where's That Journal?"

Further down the class's My Library page are other specific databases chosen for that class's research needs, such as ABI-Inform, ERIC, Social Work Abstracts, or many others. Librarians may be tempted to include many databases for a class's potential needs, but students probably prefer fewer links, which makes for a cleaner My Library page with less likelihood of feeling overwhelmed.

Links to library services such as reference question, book renewal, interlibrary loan, and document delivery Web forms are also included on class pages, reminding the librarians to touch upon the availability of these services. The remote access proxy-setting instructions are included at the My Library page bottom, bringing the class session (usually fifty or seventy-five minutes) full circle.

Faculty and student reception of the My Library instruction sessions has been extremely positive. In addition to the heavy usage of these pages described above, students, and faculty's comments about My Library have been very enthusiastic, as evidenced by the e-mail received at the end of the last semester that read, "We especially liked the special 'my library' page you created for us." Many of these library users will not create their own personal My Library pages, though they are invited to do so. We suspect that students see their needs changing from class to class and semester to semester and thus the content of their My Library page might be too fluid to stay valuable with frequent re-editing. The course-specific page, on the other hand, meets their immediate needs and therein lies its popularity.

Conclusion

Fast forward from the original inspiration of VCU's My Library. It is summer 2000, two years later, and we are starting another redesign of the library Web pages. Our current challenge is how to integrate My Library into the other emerging personalization features throughout our library system.

Soon, our integrated library system will allow patrons to query their borrowing record. By the winter we will have an interlibrary loan system that will allow users to track the status of their loan requests. More and more vendors are offering personalized alerts services that the library is beginning to promote. Further, we have a new books alert service under development. Many of these emerging personalization features will more than likely carry unique user names and passwords. While the

current My Library system at VCU is a simple way to create personal menus for researchers, it is neither robust nor secure enough to bring these emerging features under its roof. Likewise, the other systems, such as the patron-borrowing record or the alert services, do not have an open architecture or room to integrate with other services.

The goal is easy to articulate: a single login followed by secure links to one's databases, borrowing record, management system for alerts, interlibrary loan, and remote authentication. Extrapolated out to the university level, one should also have access to university e-mail, class or teaching schedules, and university events of interest. With such products as Campus Pipeline (www.campuspipeline.com) and Blackboard (www.blackboard.com) seeking to create university portals, much of the university personalization is in the foreseeable future on campuses across the country. Thus the pressure on libraries seeking to take advantage of personalization urges them to integrate existing systems and to become represented at the university level. Such a wide point of access would steer My Library at VCU away from a power tool for the few and toward a primary point of access for all library users.

We must consider further the need for better marketing of this tool to its potential clientele. Although students in some classes have been required through library instruction to make their own personal My Library page, it is suspected that they have not necessarily become regular users of this service. As we noted in our article title, librarians almost universally love the My Library concept, but not all library users do. Our perception is that only regular or frequent users of library resources would appreciate any value in a Web shortcut to favorite resources, for they are the only users who have a sense of "favorites" among library tools to begin with. Class-generated My Library pages may have proven popular because, for a least a short time, those students are frequent library users and have been introduced - through instruction - to "favorite" resources. At the root of the marketing question lies the nature of library users and if they would value a time-saving device like My Library. One-time or infrequent library users would consider the creation of a My Library page an unnecessary impediment to getting their hands on the information they crave, and no amount of marketing will likely lead these users to value a My Library product. Our challenge lies in reaching every frequent user of our library to make sure he or she is aware of this service and knows how to use it.

NOTE

1. After announcing My Library to the library community, we became aware of several similar projects under development and in production including University of Washington, California Polytechnic State University, and North Carolina State University. In hindsight, the first public conceptualization of My Library seems to be Eric Lease Morgan, "MyLibrary in Your Library Could Make for Satisfied Patrons," *Computers in Libraries* 18, no. 5 (May 1998): 40-41.

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http://www.lita.org/ital/1904_ghaphery.html
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