Building Upon the MyLibrary Concept to Better Meet the Information Needs of College Students

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Abstract

In the years following the creation of MyLibrary@NCState in 1998, there have been several dozen implementations worldwide of MyLibrary-like portal systems on academic library websites. However, adoption rates of these services rarely exceed 10% of the potential user community. For the Fall 2002 semester, the University of Rochester Libraries implemented "CoURse Resources" built upon the MyLibrary concept but overcoming many of the usual barriers to adoption because the service dynamically generates web pages tailored to university course offerings, thereby meeting the immediate information needs of students in their medium of choice.

Introduction

With increasing frequency in a world where information is rapidly becoming both digitized and personalized, the relevancy of libraries is being questioned. Patrons arrive at the library website with expectations raised through the personalized use of My Yahoo!® pages, the convenience of tailored reading suggestions from Amazon.com® and the relevance of localized weather reports from Accuweather.com®. The majority of times, patrons' expectations go unmet by static, academic library websites that attempt to meet the needs of their very diverse patron-base with a single, "one-size-fits-all" interface. With 73% of college students using the Internet instead of the library as their primary site for information searches [Jones, 2002], it becomes imperative that an academic library website, to the extent it provides access to collections, meets its users' needs as well as their expectations. Librarians cannot afford to be complacent in the knowledge that college students consider it easier to find resources using the Internet than by using the library [Jones, 2002].

The University of Rochester Libraries enjoys a reputation among university students as being student-friendly. To remain vital and relevant to its patrons, the Libraries undertook the challenge of creating a web-
based interface that brings together the best resources the Libraries have to offer at a course-specific level. This is not a new service, as this kind of guidance and instruction has always been at the heart of the Libraries' raison d'être. The World Wide Web is simply a new medium for the service and the medium that 88% of college students are using for some, if not all, of their course assignments [OCLC, 2002]. Without any login names or passwords, University of Rochester students can quickly and easily navigate to webpages containing information about and links to the best print and electronic resources the Libraries have to offer in support of each unique course on campus.

The "MyLibrary" Model

The aspiration to provide library patrons with a personalized website interface has spawned several portal-like library projects, starting with MyLibrary@NCState in 1998. At the heart of these systems is the ability to push library resources to patrons based on patron-designated profiles. Often the patron can add and remove resources and customize the initial profile template. At present, there are several dozen implementations of MyLibrary-like systems in academic libraries around the world [1]. However, the number of users that take the time and effort to create a profile in a MyLibrary system remains quite low. As of August 2002, MyLibrary@NCState, the earliest and perhaps most well-known system, had 4,676 accounts, but only 1,110 were used thus far in 2002 [2]. With a student population of over 28,000, it appears that only 4% are current users of the system. The 1,757 active accounts reported at Virginia Commonwealth University in December 2001 [Ghaphery, 2002] equates to only 7% of total enrollment. Moreover, only a small portion of those patrons who do create accounts use them frequently. At Virginia Commonwealth, for instance, a mere 4% of the accounts were responsible for 60% of the MyLibrary system's activity [Ghaphery, 2002].

There are several factors that might contribute to the low adoption rates of MyLibrary systems. The first is that the system requires the active involvement of the student who must take the time to create an account and designate a discipline-based profile. Once created, the student must remember to log in with each visit to the library's website. Presumably most students do not perceive the benefits of a MyLibrary system to be worth their active participation or else MyLibraries would have successes more akin to that of My Yahoo!® and My AOL™. Moreover, the growing concern about privacy when using a library's physical and digital collections brought about by the USA Patriot Act may cause some patrons to avoid library systems that could potentially log transactions. Library resource systems need the capacity to push resources to users, in spite of passive and/or private user participation.

Another factor that may account for the low use of MyLibrary systems is that the account profiles create a silo of library resources focused on a specific subject or discipline. Although this is a helpful service for professors and graduate students, because generally they use library resources only within a specific discipline, this filtering is not helpful to the typical undergraduate who, regardless of declared major, is completing required courses in numerous disciplines. Although it is the novice academic library user who could most benefit from having library resources pushed to him/her by a MyLibrary system, the system itself tailors the resources in a manner better suited to the needs of more advanced library users. A more effective system is one that, for example, can push the ABC-Clio® America: History and Life database to the biology major who is taking a required American history course.

For librarians as educators, a MyLibrary-like system raises philosophical as well as maintenance and workflow issues. For example, MyLibrary systems usually contain only digital library resources, which even today remain a very small percentage of the wealth of materials in an academic library. Many librarians echo Andrew Pace's concern that "a tool that personalizes only the digital content of a library unwittingly diminishes the value of print resources" [Pace, 2001]. Permitting paper sources to be overshadowed by electronic ones does a tremendous disservice to all disciplines, in particular the social sciences and humanities. Content and quality, not format, should be the determining factor for inclusion in any library
Building Upon the MyLibrary Concept to Better Meet the Information Needs of College Students

The library's catalog remains the most comprehensive inventory of a library's collection. However, it is exactly the comprehensiveness of the catalog that necessitates a MyLibrary-type system to help the average user find the most pertinent resources from among the several million potentially represented in the catalog. Unfortunately, the solution used by many MyLibrary systems is the creation of a smaller catalog of library resources for use specifically by the system. This leads to a redundancy of maintenance effort in ensuring the integrity of both the library's catalog as well as the MyLibrary system's mini-catalog. Ideally, the MyLibrary service should obtain the key metadata for a resource, such as title, author and URL, directly from the library's catalog, making the system a derivative of the catalog rather than a surrogate.

The CoURse Resources System

After two years of offering electronic reserves, the University of Rochester Libraries decided to remove e-reserve materials out of the course reserves module in Voyager, the Libraries' catalog, and instead link the material from a digitized copy of the professor's syllabus. The expectation is that by accessing the reserve materials by way of the professor's syllabus, students will experience less confusion identifying the correct reserve readings for each assignment. Moving e-reserves from the generic catalog to course specific syllabi meant that the Libraries' redesigned website would have to include the ability to navigate to course-specific webpages. This led librarians to explore other course-related materials they could provide to students.

In late 2001, the University of Rochester Libraries formed a task force comprised of the Director, Digital Library Initiatives and subject specialist librarians representing the broad disciplines of humanities, social sciences, physical sciences, business and fine arts. The task force developed an initial list of desirable library resource types for inclusion (books, journals, websites, etc.), which were tested, along with a page layout and design, in a pilot project during the Spring 2002 semester. Testing comprised of attempting to apply the proposed template and design to a dozen actual spring semester courses and gathering faculty, student and librarian feedback. In addition, extensive usability testing was done by the Libraries' Usability Team, which consists of six usability-trained library staff members [3].

Feedback from those tests caused significant changes both to the requirements of the system as well as to its design. For instance, it became clear that for the system to be usable by the subject specialist librarians who create the pages for each course it should: 1) not require any knowledge of HTML encoding; 2) support the association of a resource with courses using both broad strokes (Grove Dictionary of Music to all courses in the Music Department) and very fine strokes (Sondheim.com website to only Music 141); 3) permit subject specialists, if they so desire, to assign a sorting order to the resources (list PA Research II before Wilson OmniFile); and 4) provide for resource descriptions customizable at the course level. Usability testing played a tremendous role in determining the terminology used (i.e., replacing the label of "database" with "articles" and "bibliographer" with "librarian") and the weight and emphasis of elements on the page.

These design requirements, combined with an awareness of the major barriers to MyLibrary system adoption, drove the construction of the CoURse Resources system [4]. In essence, a relational database of "best library resources" and course offerings was created. A library resource could be a book or journal in paper or electronic form, an article database, an article index, a website, a multimedia item or a librarian. Throughout the summer of 2002, subject specialists identified nearly 1,200 library resources for initial inclusion in the system. Whenever possible, metadata for a resource was pulled from the Libraries' catalog, and when appropriate, links were automatically established back to the catalog. For example, the Libraries' own issues of the journal Anthropology today in both electronic and paper formats.
Presentation of the journal on the CoURse Resources pages consists of the journal title and coverage information (extracted from the catalog), a "Get it Online" link for the electronic version, using the URL from the 856 field of the cataloging record, and a "Get it in the Libraries" link, which links back to the journal's print holdings record in the catalog. Nightly synchronization ensures that the information displayed on the CoURse Resources pages is identical to the information in the catalog.

Once entered into the system, the resources are associated with any number of courses offered on the University of Rochester River Campus. As of December 2002, over 4,000 associations had been made.

The University of Rochester River Campus offers close to 1,000 courses, not including cross-listings, each fall and spring semester. It was determined to be impractical, as well as potentially impossible, for only twenty subject specialists to identify relevant library resources for all of the classes offered in any given semester. Instead, the initial focus was on the approximately 400 classes that put material on reserve in the Libraries. The CoURse Resources page for a particular class is turned on only when the professor puts material on reserve or requests that the page be activated. Using past reserve records of classes as a guide, the subject specialists focused their initial energies on those classes for the system's Fall 2002 inaugural semester, and the same was done for the classes using reserves in the Spring 2003 semester. The system sends an email message to the subject specialist whenever a course reserve staff member has activated a class page, alerting
the librarian to a course resource page that may not have been thoroughly prepared. Since librarians associate the resources with the generic class offering, such as Anthropology 101, and these associations are carried over to the next semester, a repeated class should require very little, if any, tweaking from semester to semester. Therefore, the subject specialists' overall workload will diminish with each semester, while the number of classes with extensive library resource pages will steadily increase.

Impact on Librarians

Although the time and effort required to prepare the CoURse Resources page is certainly an additional item on the subject specialist's already crowded plate of tasks, several real benefits have already been actualized. Once a CoURse Resources page is created, the subject specialist often invites comments from the professor of the course. This has greatly increased the dialog between faculty and librarians, which in turn has led to other faculty/librarian initiatives. Moreover, through the process of preparing the pages, the subject specialist develops an even greater awareness and understanding of the courses being taught and course materials used in his/her respective departments. One subject specialist commented, "My understanding of what is being taught has been enriched as faculty members suggest adding a resource or removing one." This increased awareness will lead to collection development decisions more in line with the University curriculum. In addition, the depth of knowledge the librarians have about the classes in their subject specialties supports students seeking research assistance.

Early usability testing indicated that the vast majority of students were unaware there was a librarian who served as a subject specialist for each discipline taught on campus. This led to a design for the CoURse Resources pages that includes the name and contact information for the respective specialist, as well as a small photo of the specialist, on every page. In addition, there is an animated image (the only moving object on the page) that serves as a link to "Ask a Librarian," the Libraries’ online chat service. The system emphasizes the roles of and encourages communication with the subject specialists and reference staff, incredibly valuable resources often over-looked by students. Already students are coming to the Libraries requesting assistance from the subject specialists by name.

The CoURse Resources system has proven to be a valuable tool, especially for those subject specialists with limited knowledge and/or comfort with webpage creation and design. The submission of resources into the system, as well as the course association process, is done with simple web forms. The process of adding a new resource to the system and associating it with a course takes less than a minute to complete. In only a few minutes librarians can create professional-looking library resource guides within a template consistent with the rest of the Libraries’ website without any knowledge of HTML encoding. Moreover, the CoURse Resources pages have proven to be an excellent tool for bibliographic instruction sessions. As one librarian explained, "I am planning to use [the CoURse Resources pages] as a starting point for all of my bibliographic instruction sessions to draw students' attention to the incredible benefits of such a feature. It's like having dinner ready on the table, waiting to be eaten."

Impact on Students and Faculty

As part of the pilot project in the Spring 2002 semester, library resources pages were created for a dozen courses using the proposed CoURse Resources template. Surveys were collected from 53 students in the pilot project classes. The survey results were overwhelmingly positive. 95% (38 out of 40) found the page created for their class to be useful, in part because "it presented library resources in an organized manner" and "having all the links in one place was very useful." The pages were visited more than once by 84% (37 out of 44). Web statistics indicate that the average visit to one of the pilot project pages was 6 minutes and 42 seconds in length, suggesting that many students took the time to give the library resources listed on the pages more than a brief glance. When asked if they would like to see similar library resource pages created
Building Upon the MyLibrary Concept to Better Meet the Information Needs of College Students

for their other courses, an overwhelming 98% (41 out of 42) answered affirmatively — "such sites would be especially helpful for all courses."

The majority of faculty have been pleased with the CoURse Resources system. Faculty have the option to "opt-out" of the system, but only a handful have made the request. A concern that students would mistake the CoURse Resources page for the professor's own course homepage has been partly alleviated by the prominent inclusion of a link to the professor's course homepage or WebCT® page [5], just below the link to course reserve materials. Moreover, the library resource pages act as another communication tool between the students and faculty through the inclusion of a "mailto" link to the professor on each page, as well as a link to the department's homepage.

For some professors, the CoURse Resources system has eased the need to spend class time educating students about the available and relevant library resources, and the class time that is spent is used more efficiently because the resources have already been congregated onto a single web page. Other professors are supportive of the system because the resources suggested by the subject specialist are sometimes a little different than those the faculty member would have suggested, thereby "adding some spice" to the mix or potentially informing the professor about a hereto unknown library resource. To some degree, the CoURse Resources project has been educational to students, faculty and librarians alike.

All of these outcomes will help move the Libraries into what Wendy Pradt Lougee, formerly of the University of Michigan's Digital Library Project, describes as "Phase 3" of the evolution of library roles in which

...we see the library becoming more deeply engaged in the fundamental mission of the academic institution — i.e., the creation and dissemination of knowledge — in ways that represent the library's contribution more broadly and intertwine the library with the other stakeholders in these activities. The library becomes a collaborator within the academy, yet retains its distinct identity. [Lougee, 2002]

Current and Future Use

By the end of the Fall 2002 semester, the Libraries' course reserve staff had activated a CoURse Resources page for 446 classes, which equates to 47% of the classes taught on the River Campus. A random sampling (n=57 or 13%) reveals that there is an average of 5.54 library resources on each page, with some pages containing as many as 27 resources. This number does not include the many "statements" that can be added to the pages, such as information about where current journal issues within a discipline are shelved or links to the Libraries' catalog that automatically perform various subject heading or keyword searches. Of the 1,453 library resources currently entered into the system, 45.7% are in print, 45.8% are digital resources and 8.5% are resources available both in print and electronic formats, thus stressing the continued importance of print resources on today's academic campuses.

The Usability Team conducted studies throughout the fall semester on the CoURse Resources system. In particular, the assessment tests focused on a continued refinement of vocabulary used on the page and checked to ensure that the core items students want were indeed prominently displayed on the screen. These findings will help direct a summer redesign of the page that will provide greater emphasis to the reserve material link and details about the course at the top of the page. Discussions with subject specialists have led to some added features to the back end of the system, including the ability to view and manipulate all resources associated with a given course from a single screen.

While the CoURse Resources project was in implementation stages, the University of Rochester's
Information Technology Services (ITS) division began a project to offer WebCT® as a course management system. As the use of WebCT® becomes more widespread across the campus, some professors report a level of confusion about the various on-line course support tools offered by the Libraries (electronic reserves and CoURse Resources pages) and ITS (WebCT® and static course pages). In particular, the faculty seek delineation of the benefits, interaction, and functionality of the different services. As a result, the Libraries and ITS have begun a collaboration to jointly promote the services, and, more importantly, increase the sharing of information and documents between them. For instance, a faculty member should have to electronically submit only one copy of his/her course syllabus, which should then automatically be distributed as appropriate to the Libraries' course reserve staff and/or subject specialist and/or WebCT support staff and/or ITS course website support.

Based on the number of requests for copies of the system's source code from other institutions, the University of Rochester Libraries has decided to make the code open-source. The ColdFusion (CFML) program and SQL table structure will be available, without cost, for non-commercial use in April 2003.

For many librarians, MyLibrary systems provided the first glimpse of the tremendous opportunities offered by database-driven websites. Academic library websites are no longer restricted to the "one-size-fits-all" approach and can actively push valuable library resources to their patrons. However, it is imperative that this new technology not dictate what resources are pushed nor cause librarians to hand over their roles as educators to user-selected profiles. The University of Rochester Libraries' website better meets the expectations of students by presenting the collections in a context of high significance to students with solutions to address their immediate information needs. By adopting some of the best features of MyLibrary systems and attempting to find solutions for some of their adoption barriers, the CoURse Resources system offers the University of Rochester Libraries an opportunity to become a more active participant in the educational mission of the University. Evidence indicates that at the University of Rochester the community welcomes the Libraries' efforts.

Notes


[3] There is a growing body of literature about usability as an assessment tool, particularly for websites. Dr. Jakob Nielsen's useit.com website (<http://www.useit.com>) provides an excellent introduction to the topic of usability.


References

Building Upon the MyLibrary Concept to Better Meet the Information Needs of College Students


