A distributed electronic course reserves project: early findings

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Abstract

Electronic reserves is an added service that can benefit both the traditional and nontraditional student. In this article the authors describe an electronic reserves pilot project at Temple University using Innovative Interfaces, Inc.'s Course Reserves Module and Electronic Course Reserves product. Initial observations indicate that the project has had a different impact on the operations of Paley Library's centralized access services unit and the departmental Biology Library participating in the project. The project has pointed out the need for investigating the economic and preservation issues of long-term storage of reserves images and for developing quality standards for e-reserve materials. This trial has directed our thinking about the future of integrating course reserves on our OPAC with Temple's learning management software (primarily Blackboard) enabling the library to retain its function of organizing reserves and other documents.

Introduction

Universities are reaching out to a wider student demography. Increasingly students may be juggling their education with work and family responsibilities. In addition to serving the traditional student, Temple University has had a mission to provide education to the nontraditional student since its founding in 1884, as a college for the urban working class.

New technologies can provide expanded access to materials to support classroom teaching and better serve both traditional and nontraditional students. During Spring Semester 2001, we began a trial electronic reserves project that locates all electronic course reserves within a module of the Library's OPAC while still allowing faculty the flexibility to provide links to readings from their external course Websites, including those made available through Temple's Blackboard Learning Management System.

The advantages for students are immediate: e-reserves allow them to use reserve material from any place at any time regardless of library hours. In addition, students can access the same article simultaneously. Moreover, students do not need to worry about copies not being returned or articles with missing pages.

Project details

We began our electronic reserves pilot project in the Spring 2001 term using the Innovative Interfaces, Inc. (III) Course Reserves Module and Electronic Course Reserves product. The project is being carried out simultaneously by staff in the Access Services Department of Paley Library, the main campus library serving the humanities and social sciences, and staff in the departmental Biology Library. During the pilot project all materials placed on e-reserve will also be available in paper form. Staff at the Paley Library plan to scan all articles to be placed on reserve during the term while the Biology Library will selectively focus on reserve materials that will be most heavily used.

Staff at the libraries place items on e-reserve using III's Course Reserve module and its Electronic Course Reserves product. Electronic Course Reserves also relies on the Electronic Course Reserves scanning workstation running

III's GuiCat software (a windows-based database manipulation program). Using the scanning workstation, reserve material (e.g. journal articles, musical scores, etc.) can be scanned and converted into graphic files that are then attached to bibliographic records in the Diamond database (the Temple University Libraries' online catalog). If reserve material already exists in the form of graphic files, they can be imported and attached to bibliographic records. In addition, reserve material already in the form of graphic files that are stored on an external Web server can be linked directly to bibliographic records and placed on reserve.

The equipment

During the project we will be using one electronic reserves scanning workstation located in the Paley Library Access Services department. In addition to the software specified above, the workstation comprises a Dell OptiPlex GX1 (Pentium II processor, 128 MB RAM, AdvanSys PCI SCSI Host Adaptor) computer with a 17-inch monitor, and a Hewlett-Packard HPc5195 scanner with an automatic document feeder.

Copyright issues

The Temple University Libraries strictly adhere to copyright guidelines and pay for copyright clearance (through the Copyright Clearance Center) for any article placed on reserve that exceeds fair use guidelines. These charges are absorbed by the libraries and are not passed on to students. Though there is some flexibility, the library guidelines for faculty are 25 reserve articles per class per semester, with copyright clearance costs not to exceed $100 per course. Access to course reserves is possible only through connections from Temple IP addresses (either from on-campus or off-campus through students' PPP (point to point protocol) accounts). E-reserves are protected from non-Temple users, therefore, since e-reserves are a subset of the course reserve module on Millennium. The trial focuses primarily on two different types of material, and only materials that fell under fair use were included in the trial. The Paley Library project focuses on articles used for the first time, while the Biology Library scanned past exams for which the faculty owned copyright.

Paley Library

Staff time

Initially, the Circulation Supervisor spent two hours learning to use the software and the scanner. An additional one and a half hours staff training was needed. So that e-reserves may be expanded to include all of the Temple University Libraries, the Access Services Librarian is creating extensive documentation for staff use and has been acting as functional expert for e-reserve projects. The documentation required 30 hours of creation time. Data has shown that the average time to scan an article is 12.8 minutes. Although the Millennium system does not require a physical piece be placed on reserve, it does require the creation of both a bibliographic record and an item record for each piece. This adds an additional three minutes to the process. Given that Paley Library typically places between 600 and 700 articles on reserve each term, it is projected that staff will devote between 158 and 284 hours creating records and scanning articles. As the project progresses and copyright clearance becomes an issue, even more time will be added to the process.

Additional time is spent by staff in troubleshooting problems. For instance, the Access Services Librarian and the Biology Library's Bibliographic Assistant spent three hours and two hours respectively investigating printing problems. Moreover, at this stage, time is devoted to testing settings and their effects on scanned articles. Experimentation has led to a functionality "wish list" for the electronic reserves module that will be submitted as enhancement requests, giving the libraries' staff an opportunity to play a part in the development of the software.

Once e-reserves are fully operational and adequately advertised, it is anticipated that staff time will be freed for other tasks. As students use more e-reserves than paper reserves, staff will retrieve and re-file fewer articles. Decreased handling of articles should result in staff not needing to locate faculty to replace missing pages or missing articles.

Biology Library

The Biology Library is one of five satellite Engineering and Sciences Libraries on

Temple's main campus. The Biology Library's collection is geared towards faculty and graduate researchers who rely largely on the journal collection. Staff in the Biology Library provide some library instruction for undergraduates, but the main service for which most of the undergraduates use the library is reserve reading.

A small departmental library, the Biology Library has room for only one photocopier. Almost all students will check out an exam to make copies for themselves and often a few of their friends. The exams rarely, if ever, remain out the full two hours. When students share reserved exams with friends, rather than check them out individually, we cannot keep accurate statistics of how many uses each item receives. In addition, numbers cannot reflect how hectic the library becomes. During midterms and finals, when students are copying past exams for several courses, lines form at the service desk. Problems with the copier will create queues there as well. During these crunch times, handling reserves can be extremely time consuming in the small one-person library. It is at these same times of the semester that students also require the library staff's reference and document tracking skills, which puts further demands on the lone staff member, negatively affecting their ability to provide quality service.

For the e-reserves project the Biology Library focused on digitizing the most heavily used undergraduate material. They targeted past exams used in Biology 203, Genetics, a required course for Biology majors with a lecture class of over 100 undergraduate students. This term the professor requested that the 1999 and year 2000 exams be placed on reserve for the first, second and final exams, for a total of six different exams.

Staff time

The Biology Library staff person spent one hour in training and two hours scanning the six exams plus an additional two papers, in addition to one hour communicating with the course lab coordinator and promoting the service. Three quarters of an hour was spent on quality control issues, including re-photocopying material not suitable for scanning. Two hours were spent trouble-shooting printing problems.

Problems encountered, solutions found

The major problem encountered to date has been the lack of equipment in all the libraries, currently staff from other campus libraries must use the equipment at Paley Library. It is sometimes difficult to schedule use during times when the departmental library has student coverage. The departmental library staff working offsite cannot as usefully multi-task when confronted by idle time while scanning. When Biology Library staff are offsite scanning they are not available to assist departmental patrons.

One solution would be to load the image manipulating software onto the staff machines in the Science libraries, despite some initial scanning at the main library. This will enable cropping, rotating or changing the contrast of images to be done in the satellite library. We will also explore whether professors' past exams can be converted from one file format to another and linked to the catalog record without having to use the scanner at all.

There have been reports that loading complex images from off-campus computers takes a lot of time. There have also been reports that some articles will not print, printing problems remain with scanned articles on the laser printer in the Biology Library. The statistics reporting software that accompanies the module is designed to aid tracking copyright compliance and the collection of royalty payments and does not provide useful usage statistics in summary form by either article or by course.

We have learned a few things about how best to include satellite libraries in trials of new technologies. All librarians and staff involved and interested in e-reserves will be invited to join a listserv to share problems, solutions and home-grown instruction manuals in development. We found that a few repeated problems could have been solved sooner with better asynchronous communications.

Future considerations

Issues that may not be resolved during the pilot program include decisions on whether images should be stored, and if so, for how long. Continually storing images will require a robust

server. There are also issues of preservation, e.g. determining what is the "shelf life" of the stored images and creating guidelines for refreshing files or expunging them. The pilot project has pointed out the need for the development of quality standards for materials accepted for e-reserve. In the future, these standards would be given to faculty wishing to place their course materials on e-reserve. Originals should be of good quality on undamaged paper with dark, legible print, high resolution pictures and graphics, and proper orientation on the page (i.e. no "crooked" images – they reflect poorly on the service). It is best if articles are scanned as they are received since handling makes them less suitable for scanning: paper becomes wrinkled and torn, and pages occasionally disappear.

There is some concern that faculty will opt not to use e-reserves and will instead choose to make materials available via their own course software (such as Blackboard). There are also products such as XanEdu that allow for the creation of electronic coursepacks that can be linked to such course material on the Web. Although these approaches offer the flexibility of adding articles as you go, coursepack products do so at a cost to the student, while library e-reserves remain a free service. Library e-reserves also offer the ability for linking readings to specific courses on the Web.

Conclusions

This trial has directed our thinking about the future of integrating course reserves on our OPAC, using Temple's learning management software (primarily Blackboard) enabling the library to retain its function of organizing reserves and other documents. This trial points to ways in which we can leverage the small library and its mode of conducting business. Students in Biology 203 have become familiar with electronic texts early in their careers. The successful communication with the class via their listserv has given the Biology Library ideas for offering targeted and timely library instruction and reference services. This kind of advertising (online and in class) seemed to be especially useful, possibly because it is much easier to convince someone to click on a link while they are already online checking their e-mail.

Quantifying time savings at service points has led to thinking about what criteria we will use to evaluate our performance and to show accountability and value for the investment made in the libraries by the university. Deiss (1999) offers some questions for consideration in her "Organizational capacity white paper":

- "Degree of staff involvement with the academic community – how many contact hours do library staff have with faculty and students; what is the product of staff involvement with faculty?"
- "Effectiveness of organizational structure – how does the organization assess itself and the viability and usefulness of its organizational structure?"
- "A powerful question, then, is how do we assess our human resources as assets rather than costs."

How can we turn some of the inefficiencies of decentralized functions in a multiple library system into productive assets?

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