

Library Technology Summary

The library strives to improve the student learning experience by making use of new technologies as they become available. This document will describe the technology available at the library, highlighting changes since 1998.

Network

In 1998, the internal library network ran at 10 Mb on hubs. All computers were on a single logical network visible to any computer on the Internet. Several years later, portions of the network were converted to 100 Mb on switches, and with the construction of the Emerson Library building in 2003, the entire network was converted to 100 Mb on switches. Since 1998, we have split the network into a number of virtual networks, including a network for servers which must be available on the Internet; separate networks for staff computers and public computers, both behind the firewall; and a network for laptop users. These changes have greatly improved the speed, stability, and security of the library's network, and have made it easier for students to use library computers to access online databases and other Internet sites needed for their research.

Public Computers

In 1998, the library had less than 30 computers available for use by students. These computers were used for online database and library catalog searching as well as Internet and email. We now have 69 computers and 2 scanners available, with an additional 24 computers in the library classroom (to be discussed later). Students using Emerson Library computers are able to search online databases and the library catalog, and use the Internet, email, and Microsoft Office. Some of the computers also have specialized software programs which allow students to create multimedia projects, including Macromedia Dreamweaver and Flash, and Adobe Photoshop, Acrobat, and InDesign.

We have expanded our options for saving data from printing, emailing, and saving to the floppy drive to printing, emailing, and saving to floppy, CD-ROM, or flash drives, or to temporary server space. These additional options give our users flexibility and provide better protection for their data.

We have also created a customized desktop for our public PCs which is pushed to each client. This desktop includes links to resources, information about using the public computers, and announcements for campus wide events such as student government elections. The ease of changing this desktop has greatly improved communications with our users.

Computer Management

Over the last ten years, we have implemented a number of changes which have resulted in increased stability and security of our computers. In 1998, our public computers were

secured at the client, and any changes to computer security had to be made at each computer. We have since implemented Windows Active Directory and use group policies to push security changes from the server to each client.

Additional security-related changes include splitting the staff and public computer networks into two separate virtual networks, preventing users from having administrative access to computers, and physically securing computers with locks and cables.

Laptop Access

In 1998, the library had no network connection capabilities for laptop users. We now offer approximately 375 wired network drops for laptop users, dispersed throughout the building. We also offer wireless network access on the first and second floors of the Café as well as in the Faculty Development Center.

Classroom Facilities

Prior to the opening of the Emerson Library, instruction took place in a classroom with an instructor PC and a projector, or librarians used classrooms on Webster's campus to offer classes. With the opening of the Emerson Library, we now have a classroom space with a multimedia instructor station, overhead projector, and 24 student PCs which are managed by classroom control software. In addition, we have a conference room with a multimedia instructor station, overhead projector, and flexible seating for up to 100 people.

Library Catalog

In 1998, our users searched for library materials using a telnet client that accessed a catalog serving only the Eden-Webster Library. In 2001, the library migrated to a shared catalog with a web interface. Our users can now search the holdings of more than 50 Missouri libraries, and can request books which often arrive within 2-3 business days.

Access to Online Databases

In 1998, we offered access to online databases using three different authentication methods. (The method used depended on the database vendor.) When we subscribed to new databases, making them available to our users was a cumbersome and often expensive process, as it frequently required custom programming. In addition, our authentication method required non-standard Internet ports, which prevented some of our users from accessing the databases at all. Starting in 1999, we began using a commercially available database authentication program which uses standard Internet ports, and we have transitioned all of our database access to this program. This has made database access stable and reliable for our users, and has resolved problems for users who could not use non-standard Internet ports.

CD-ROM Databases

In 1998 we offered access to a number of CD-ROM databases in the library using a CD-ROM server which stored the data and restricted usage for each database to our maximum number of licensed users. Since then we have transitioned away from CD-ROM databases—most database products are available online, and the online format is vastly superior in that the data is updated much more frequently than with CD-ROM databases, and online databases are available from anywhere, not just in the library.

We currently offer access to just a few CD-ROM products, and we no longer maintain a CD-ROM server because it is not cost-effective. We simply install the CD-ROM products on a number of public computers equivalent to the number of licenses for each product.

E-Reserves

The library began offering electronic reserves using Docutek's ERes product in 2001. Prior to that, we offered faculty a rudimentary means of posting syllabi, links to web sites, and other documents. This service, which we called Customized Passports, ran on free software which had been adapted to our environment. It had minimal features and was not upgradeable. It did, however, serve as a good introduction to electronic reserves for faculty, and made the transition to ERes easier. We currently have 719 faculty accounts, 1487 course reserve pages, and 19104 documents on the ERes system.

Article Delivery

In 1998, the library delivered ILL articles to students primarily via email or U.S. mail. Since then, we have migrated most article delivery to the web; students are notified via email that they have a document to pick up, and they go to a secure web site and log in to retrieve it. This has eliminated problems some users were experiencing with limits on email boxes and email messages.

New Services

The library has introduced a number of new services in the past ten years, including:

- Journal A-to-Z list, which enables students to determine whether a journal they need is available in print or online, or whether they need to make an interlibrary loan request.
- Article Linker, which allows users to seamlessly determine whether an article referenced as a citation in a database is available full-text in one of the library's other databases.
- Central Search, a mega database search interface, which allows users to search multiple library databases at once.
- RefWorks, an online service which allows students to manage citations and create bibliographies.

- New titles list, a web page listing the new library materials available each month.
- Video Search Express, which allows searching for videos in the library's catalog using keyword, language, and genre.
- Turnitin, a tool which allows faculty to check student papers for plagiarism, and students to submit papers to check for proper citation of sources.
- Self-checkout machine, which enables users to check out their own library materials.
- 24-hour cybercafé, a space with computers, study areas, and snack machines, which is available 24 hours a day to students via swipe card access.