Computer literacy over the campus network

By Tim LaBorie

Networks offer opportunity for individualized instruction

When campus network connections came to Saint Joseph's University Library we saw it as a tremendous opportunity to expand our services beyond the library walls. We also saw the network as a rich resource to support Library activities and a powerful tool to improve staff productivity. As systems librarian my task was to acquaint the library staff with the features of the network. For most staff members this required increasing basic computer literacy skills. I found that the campus network itself is the perfect vehicle for training the staff to use the network. This article describes the library's objectives for using the network and a series of exercises, distributed through electronic mail, that have helped staff move toward achieving these objectives.

The network as teaching environment
Using the network itself to teach staff network skills eliminated the need to assemble all the users in one room for instruction. It also permitted each person to work at her or his own pace, sidestepped the problem of trainees having different levels of skill, and freed me to provide individualized instruction to those who needed it most. Finally, it provided a common set of experiences that the trainees could refer back to when working with me, and each other, to solve individual problems.

The training focused on basic DOS commands and file handling and other skills directly related to using the network and electronic mail. For training in the use of applications like WordPerfect, Quattro, and dBase, staff attended workshops offered by our Academic Computing Department.

To understand how the campus network fit into the library's planning and how we used it as a training tool, it is useful to look briefly at a few technical details.

Network environment
The university network uses Ethernet and TCP/IP protocol with Unix and Sun PC-NFS software. Fiber optic cable forms the backbone and buildings are wired with unshielded twisted-pair cable. The technical choices were driven by the desire to follow standards and the need to interconnect equipment using a variety of different operating systems including Unix, DOS, and Macintosh.[1]

The library's Geac system was the first service offered on the network. When our online new book list was added, the library was given a prominent place on the network's main menu. When the library staff was introduced to the network, most administrative offices, many academic departments, and dormitory rooms were already wired. Initially, seven library microcomputers were given network connections. Four were dedicated machines for the director, secretary, systems, and the Acquisitions Department; three were configured for shared use: one was located in the Reference Department and two in the Technical Services area. Ten staff members, primarily professional librarians, had access to networked PCs and were ready to learn about the network.

Library objectives
Our objectives for using the network fell into four broad areas: communication, software sharing, file serving, and special applications.

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Annotated Bibliographies of Interest to the Librarian

Law for the Layman: An Annotated Bibliography of Self-Help Law Books

Frank G. Houdek

xiii, 214p.   1991   ISBN 0-8377-0685-8   loose-leaf $42.50

This annotated bibliography will aid the reader in finding—from among the hundreds of books, pamphlets, and articles written for the non-lawyer—the resources best suited for the question at hand. The text identifies items that are written expressly for the layman and separates them by topic and jurisdiction so that the reader can choose which ones are likely to be most helpful. The annotations clearly describe the subject content and identify specific features of each publication.

Individuals with Disabilities Education Act: An Annotated Guide to Its Literature and Resources, 1980-1991

M. Louise Lantzy

xi, 148p.   1992   ISBN 0-8377-9274-6   loose-leaf $37.50

This annotated bibliography and resource guide will assist legal researchers, lay advocates, parents, supporters, and education professionals working on behalf of children with disabilities in finding pertinent information on the "right to education" by providing a comprehensive guide to the legal literature and advocacy organizations that focus on securing these educational rights. Materials and resources listed include federal education law, selected case law, books, journals, reporters, looseleaf services, articles, and support groups.

1) *Communication*. We wanted electronic mail capabilities for intralibrary communication. Some staff were already using e-mail through dial-up connections, but a direct network connection simplified the process and allowed us to involve all of the staff. We planned to broaden electronic communication with the rest of the campus so that faculty and students could ask a reference question or request a new book electronically. Finally, the campus Internet connection allowed us to communicate with colleagues beyond the campus and subscribe to professional list servers like PACS-L.

2) *Software sharing*. As we add new microcomputers to the library, network connections allow us to share personal productivity software, alleviating the need to purchase packages for each machine. The network offers a variety of word processors, spreadsheet, and database programs, and more.

3) *File serving*. Each person with a network account is assigned a personal storage area that is addressed as a DOS drive (J: on our system). In addition, the library group can access a shared drive (S:). On the shared drive we can store and work on committee-produced documents such as library policies and our newsletter. One of the key features of the network drives is the security of daily back-up protection provided by Computer Center staff.

4) *Special applications*. The book acquisitions staff, using a network connection to the university's administrative computer, has been able to eliminate the paper shuffle required for purchase orders and bill payment. Other administrative capabilities will certainly follow. We are also exploring new library services ranging from a simple posting of library hours and special events to accepting interlibrary loan requests electronically.

We were on the network and had a lot of ideas. The next task was to make the staff network literate.

The exercises

The librarians received a series of exercises by electronic mail which were designed to provide a practical experience with the computer and the network and to teach the skills needed to meet our objectives. They required an activity that would keep the learner involved, and most contained a quiz that required return mail.

Exercise #1: Introduction. The first exercise was delivered by surface mail. It provided users with their login names and passwords and directed them how to sign on. Instructions led them through the network menus so they could discover the software and services that were available. Further directions led them to open the mail application[2] and read the message that contained Exercise #2. Now they were ready to receive all their exercises by e-mail.

Exercise #2: Sending a message. When you write a letter you hope to get one back. And when you receive an e-mail message it is common courtesy to respond, even if just to say "Thanks for the information." This exercise was designed to involve staff in the rudiments of sending and receiving messages electronically and get them hooked on checking their mail regularly.

Exercise #3: Network drives. All of the trainees use microcomputers in their work but often the machines function as "dumb" terminals to connect them to OCLC or another online database. Hard drives and menus obviate the need for most users to learn about file storage. When they are using WordPerfect they save their file and it is stored—somewhere—and later the application helps them to retrieve it. This exercise addressed the concept of disk drive storage and introduced the idea of individual and shared "network drives." The idea of a "J:" drive, which exists on a machine on the other side of campus, was difficult for some to grasp.

Exercise #4: File directories. Few of the trainees had significant DOS skills, but to use the network effectively they needed to understand the structure of DOS directories. Our mail application allows the user to create an "address book" of frequently used names, and aliases that contain a group of names. This exercise led the trainees through the process of creating an address file using Edlin or a word processor. Then they were given the basic DOS commands for moving through directories to see where that file was stored.

Exercise #5: Network services. Among the network services available are a campus events calendar and the library's new book list. To use these services trainees learned the "telnet" command to sign up to the network server. Then they were introduced to the basic Unix commands used to navigate through the new book list and search for author names, keywords, and book classification numbers.

Exercise #6: Productivity software. Although the trainees had opportunities to learn standard applications like word processing, they

needed to learn how to access applications from the server and store files on the network drives. For this exercise a document was created and stored on the shared network drive which is accessible to all library staff. The trainees were given step-by-step instructions for loading the network copy of WordPerfect, opening the document, and adding information to it.

Exercise #7: External communication. Many academic librarians now have access to the Internet through their campus networks, and have discovered the ease and convenience of communicating electronically with colleagues. This exercise taught trainees how to send an Internet message. A former employee at another institution agreed to be the recipient of their practice messages. In addition, since I subscribed to several library-oriented lists on the Internet, I began forwarding relevant messages to appropriate staff so they would become aware of the usefulness of the national network for exchanging information and ideas.[3]

Exercise #8: Modem communication. Librarians have preceded most other microcomputer users in realizing the power of the modem because online searching of external databases has long been a standard service at most academic libraries. With this exercise trainees learned how to access the university network by modem. They were introduced to the basic Unix commands required to read their mail and send a message. They also saw how our library catalog was used by dial-in patrons.

What we learned

People learn at different rates and have different tolerances for the need to teach themselves through experimentation. The staff behaved like a typical class of students: some did the exercises regularly, others delayed work and then did several at once. Individual tutoring was available on request, but questions during the training exercises were few. Most users waited until they had a specific project or need before asking for help.

No one will use the network to its fullest. The manuals which document the network and all its applications fill many shelves, but most users discover the techniques that make their lives easier and stick with them. With encouragement, adventuresome users continue to explore new ways to use the network. It is difficult for people to check their mail each day and make full use of the network when each person does not have a microcomputer

on her or his desk. But now it is reassuring to know that the draft of the library newsletter, the dBase file of the gift books, the spreadsheets of cataloging statistics, and other important files reside on the secure network drive.

The learn-the-network-by-using-the-network-approach has been successful. Staff have a common set of experiences that makes discussing individual problems easier. The value of continuing education through individualized instruction cannot be denied, and the network exercises have simplified our effort. As a person who finds computers quite interesting and enjoys discovering new ways to use the computer to do old tasks, this trainer took delight as staff interest in the network began to grow. And as staff members become more confident, they become motivated to make their own discoveries.

Notes

[1] The campus network environment is more fully described in Shyamaia Reddy, "School maze, networking a geographically diverse university campus," *LAN* 5 (May 1990): 114–22.

[2] PC-NFS provides a user-friendly mail application called LifeLine Mail.

[3] For a useful overview of the networks see: Caroline R. Arms, "Using the national networks: BITNET and the Internet," *Online* 14 (September 1990): 24–29. ■

ing program during National Library Week in April. There is a display in the lobby of the library consisting of the books reviewed and photographs of the reviewers. The booklets are distributed at various points within the library, in university colleges, the student union, and the branch campuses. To improve town and university relations, we also distribute these booklets to the public library, civic organizations, and the cultural center. Always eager to offer community service spots, local radio and television stations air interviews and promote our summer reading program.

In this age of computer technology, libraries are more than just bytes of information flowing through a tangled web of networks. There are shelves of books that provide ideas, thoughts, and pleasure. A positive indicator for the program is the increase in circulation statistics for the books reviewed. People come to the library and ask for the booklet and the faculty are very supportive and positive about the program. ■