New Bibliographic Instruction for New Technology: "Library Connections" Seminar at the Rochester Institute of Technology

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ACCESS TO A VARIETY of electronic information systems and services in academic libraries has been reported as confusing and mystifying to patrons, detracting from effective and efficient use of such technologies (Garfinkel 1988, pp. 27-29). Exposure and instruction is important for integrating electronic resources into traditional library use patterns and habits. A new bibliographic instruction program at the Rochester Institute of Technology (RIT) in Rochester, New York, was designed to familiarize faculty with the full array of electronic information retrieval services available to them and their students through the library.

Called "Library Connections," the seminar covers local connections (online catalog and remote access to it and electronic mail reference services), bibliographic connections (online databases, CD-ROM, access to regional networks), document delivery connections (ILL systems, online ordering through commercial vendors), and future connections—planned or imagined. The program is flexible and can be tailored to the specific needs of an academic discipline or institute department. It is also easily expanded to incorporate new services or technologies as they are added.

RATIONALE

Academic libraries have traditionally designed bibliographic instruction programs for students in the use of library resources. However, as reported by Shill (1987) "the instructional mission of the academic library must be reassessed as we advance into the electronic environment" (p. 435). Instruction in using library reference sources and finding tools is inadequate to meet the needs of an increasingly

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technological environment. The new technologies must be incorporated into any state-of-the-art instruction program.

Traditional methods have always worked best when faculty corroborated by understanding library resources and incorporating them into coursework and assignments. This corroboration has been somewhat lacking with respect to new technologies simply because faculty have been unaware of the new resources or have used them only for special purposes (e.g., in-depth research justifying the cost of expensive computerized literature searches). With the advent of comparatively low-cost online services and optical media, libraries are now able to make electronic information available to the student body as a whole without cost being a major deterrent. Faculty are often unaware of the rapid and comprehensive impact that electronic information systems are having on the use of the library including bibliographic searching, reference services, access to external databases, and document delivery, not to mention consumer utilities, nonbibliographic databases, electronic publishing, and network capabilities. With the recent proliferation of online services, optical discs, and the marriage of libraries and campus computing networks, academic libraries are being pressed into providing appropriate instruction to increase faculty and administrator awareness of the full range of resources and services available to them and their students.

There is, for example, a clear indication of the need for such instruction in user reaction to CD-ROM products being introduced in many academic libraries. Although marketed and designed to be "user friendly," CD-ROM discs have yet to achieve the "self-serve" status aspired to by their producers. At Columbia University, CD-ROM products were acquired and installed in workstations at eleven libraries as a result of a Pew Memorial Trust Grant. Although presented in walk-up stations, Garfinkel (1988) reported user frustration caused by a variety of user interfaces, a lack of awareness of search capabilities or manipulation such as downloading, and a lack of satisfactory help screens or patience among patrons to use them (p. 28). Many users do not understand the difference between the library's own online catalog, online searching, CD-ROM searching, or the OCLC database terminals often available for patron use.

At the Rochester Institute of Technology, where online catalog and online search services have existed for nearly a decade, the introduction of CD-ROM workstations resulted in similar reactions, necessitating the location of these stations close to the reference desk and requiring a considerable amount of one-on-one instruction and assistance. Although the student population is largely "computer literate," there is often confusion between floppy disks and optical discs and where to insert them. Index or "browse" search modes are often used without further investigation into combination searches or modifying capabilities. Some users are mystified by the notion that there is a corollary

between the online media and the printed index. Few faculty are fully aware of the potential revolution in student research methods because of the introduction of the optical disc.

All of this is occurring despite the fact that the new technologies are gaining rapidly in popularity. Without adequate instruction, there is increased pressure on reference desk staff to provide extensive assistance. Otherwise, ineffective or inefficient use of the media may occur with less than satisfactory search results, or search results not reflecting the full potential of the search software. Yet students seem to be unaware of, or unconcerned with, these limitations (Bristow 1988, p. 27). A need for bibliographic instruction for both students and faculty is clearly apparent. "With the growing use of new technologies, librarians need to know the uses of these technologies and educate campus administrators and faculty on their potential" (Shill 1987, p. 445). Then they can turn to students and provide instruction with traditional faculty reinforcement.

BACKGROUND

At the Rochester Institute of Technology the library has quickly espoused the capabilities of new information retrieval technologies. A pioneer in microfiche catalogs, the online catalog, and online search services, the library will convert to a second generation online catalog in 1988. It is also incorporating optical disc technology and utilizing the campus VAX network to extend remote access to library systems and electronic reference services. Recognizing the need for parallel bibliographic instruction in successful promotion and utilization of such facilities, a bold new approach to bibliographic instruction has been taken, targeted at faculty and staff and designed to expand in many directions.

THE PROGRAM

The theme of RIT's program is "connections" including: (1) a historical review, (2) local connections, (3) bibliographic connections, and (4) document delivery connections and future connections. The seminars are planned for one and one-half to two hours each. In line with the institute's dual self-concept in arts and technology, these seminars are designed to be multimedia presentations. The initial site for the seminars was the bibliographic instruction laboratory equipped with a slide projector, an overhead projector, and a phone line. A modem and a PC workstation with CD-ROM drive were moved from the reference area for each instructional session. Also used was an LCD (i.e., liquid crystal display) instructional projection unit. An LCD projector is a device which connects to a PC and is placed on an overhead projector as a light source. It has proved indispensable in online instruction, being superior to monitors or other projectors in clarity and representation of the online interaction. A good review of state-of-the-art projection systems including LCD projectors is provided by Davis and Miller (1988).

Ultimately the seminar was moved to a larger lecture room since the bibliographic laboratory capacity was only twenty and the response rate was growing, necessitating successive repetitions of the same seminar. The choice of rooms was limited by course scheduling and physical requirements. The room had to be equipped with a phone line to access external databases and also be conducive to using a variety of visual aids.

The first segment of the seminar on "history" is a ten to fifteen minute slide presentation and narrative done by the assistant director for information services, a former art/photography librarian with a talent for turning a slide show into an entertaining, stimulating, and imaginative tour. Historical photos of the library's successive generations of catalogs and services are intermingled with humorous, artistic, or graphic slides to depict otherwise abstract or subtle ideas. This introduction sets the stage for the seminar as a lively and exciting journey and puts the forthcoming "connections" into perspective.

The second module of the seminar describes local connections— those at the library and on the campus network. The general instruction librarian gives a quick explanation and illustration of the MARC record format, its evolution from catalog cards, and its relationship to the in-house online catalog. References to the universal format and shared cataloging utilities (another "connection") are made. Utilizing the remote access capacity of the online system, we demonstrate dialing into the catalog through the campus VAX network as could be done from any VAX terminal or compatible terminal equipped with a modem, phone line, and communications software in an office or home. Once connected, search capabilities and procedures are demonstrated as well as use of the electronic reference service (twenty-four hour maximum turnaround time on straightforward reference questions via electronic mail).

The next "connection" demonstrated is access to a regional linkage project in which four local colleges and one public library have provided remote dial-up access to searching each others' catalogs. To facilitate and expedite demonstrations, auto-logons are constructed and stored on disk. Still, there can be telecommunications problems or any of the systems can be "down." To cope with the possibility of such failures, backups of all searches are prepared on floppy disks. These "canned" searches can be displayed as a last resort if necessary, precluding a complete halt to the demonstration due to technical problems. One staff member is also "at the keyboard" while another is speaking, a separation of labor that works well to keep the demonstration running smoothly both visually and orally.

The third module of the seminar presents both online searching and CD-ROM searching. One of the objectives here is to differentiate between the two and compare them with respect to content, format, advantages, disadvantages, costs, mode of access, and end-user involvement. One or two librarians participate including the online services coordinator and either the head of reference or a subject bibliographer

appropriate to the nature of the audience. Again, one of them is at the keyboard while the other speaks. The online portion of the search is also executed via auto logon and the search is previously done and saved to disk as a backup should the database service be unavailable. This is a major module of the seminar and the first two modules are kept brief to make sure that this segment gets a full share of time. A variety of searches and databases are illustrated including bibliographic and nonbibliographic databases, biographical and general databases, and citation or other specialized databases. Since the CD-ROM collection has grown over the year, we are able to demonstrate more of a variety of products in that format.

The last module presents an overview of document delivery connections—e.g., interlibrary loan subsystems, online ordering from commercial vendors—and a look at future connections. This module is done by either the head of reference or the director of the library. Future connections include selection and conversion to a new online catalog in 1989, new networking (i.e., the recent transition from Utlas to OCLC and the upcoming availability of public access to the OCLC database at the reference desk), and expansion or adoption of new technologies and services. In the latter category, CD-ROM services are addressed—adding more products, exploring multiple-servers, and considerations of a CD-ROM catalog as a backup to the online catalog. Also discussed are end-user searching of external databases through the campus network (the Dow Jones Information Retrieval system has been made available to faculty in this way by the institute's computing center) and by other possibilities such as onsite loading of general or heavily used databases. Future improvements in document delivery services are envisioned such as telefacsimile transmission. Improvements in current awareness services are suggested, such as electronic Table of Contents service or downloading of stored SDI searches to individual workstations. This module encourages faculty input—suggestions and reactions which form an important dialogue—and builds bridges of communication for future interaction.

The modular structure of the seminar has proved effective in several ways. Each module can be handled by a different person distributing the burden of such a major presentation into manageable slots. Each module has a "script" written for it to serve as a guide for the presentation so that staff members can be interchanged without having to reinvent the wheel in preparing remarks. This has encouraged other staff to become involved. It is a team effort with a lot of esprit de corps, a road show with roles to be filled. The roles can change depending on the nature of the audience.

The modular nature of the seminar also permits a great deal of flexibility in focus. Initially the seminar presented a generic overview with no specific subject orientation. Some attendees, finding the seminar very useful, requested specialized seminars for their depart-

ments or divisions with a focus on an area such as business, or a special orientation, as in the case of the Office of Cooperation and Placement. These special requests can easily be filled by keeping the format of the modules the same but changing the examples of searches and databases. In the case of subject specialization, the librarian with that bibliographic responsibility is asked to participate in the online/CD-ROM module of the seminar. These librarians select the databases and sample searches to be done but usually follow the format and comprehensiveness of the standard "script."

The modular approach also offers additions in the future for new technologies or services. If, for example, we wanted to feature a module on accessing consumer utilities or to meet other needs of patrons (e.g., electronic publishing) it could easily be incorporated with or without deleting other modules.

Other supporting materials include a variety of handouts. A brochure entitled "Electronic Retrieval Services" was developed and includes a short description of all major services—e.g., public access catalog, remote access, network access to external databases, online search services, CD-ROM services, electronic reference service, interlibrary loan subsystem and document delivery services. It also contains a list of librarians and their subject specialties and phone numbers. Additional handouts include lists of databases available on CD-ROM or through online vendors, brief instructions for remote use of the online catalog and electronic reference service, an online search request form and policy statement, and general instructions for CD-ROM use.

EVALUATION

The idea of a faculty seminar was well received. A session for approximately twenty participants was originally planned. After a campus mailing of flyers announcing it, an overwhelming response necessitated adding four additional seminars, reaching over seventy faculty. It was obvious that interest and/or a need for such a seminar did exist. Comments and reactions to the seminar by attendees were very positive. The most telling evidence, however, was the resulting incidence of requests for additional general seminars and for specialized versions. This led to developing seminars specifically for business and finance, the social sciences, education, and for the placement office. In the near future there will be one for science and engineering.

Perhaps the most valuable aspect of the seminar is the opportunity to build channels of communication between the library and the faculty and to provide a mechanism for input from patrons for current and future library services. It is more than an instructional vehicle in that it promotes liaison and communication.

FUTURE

The success of the program has motivated enhancement and expansion of it. We are encouraged to expand the target audience, the

scope of the seminar, and the participation of library staff. Having moved the location of the seminar to a larger room will permit promotion of the seminar among students with the support and encouragement of faculty. As mentioned earlier, the focus will be on specific subject areas in the future or on selected topics. Recently there were requests to do a seminar on CD-ROMs in education. We simply used the "CD module" of the seminar but included a more in-depth demonstration of ERIC than would normally have been done.

Another area of expansion is staff participation. The modular nature of the seminar permits gradual introduction of staff into the program, generally for their own subject specialties. The "script" format has made staff more inclined to participate. A written version of each module is available. Staff are free to change the script if they wish, but may use it as a guide or literally "recite" it. This eliminates much of the anxiety some staff feel when doing bibliographic instruction, especially to faculty. Refinements to the script, the delivery, and the pace of the presentation have resulted from both the experience of repetition and input from new staff participants. One of the initial presentations was to the library staff who were encouraged to sit in on other seminars to familiarize themselves with the content, to provide critical remarks and suggestions, and to learn how to cope with questions and audience reactions.

Other future enhancements will be determined by the technologies themselves as they are incorporated into the library's repertoire of services. Implementation of a new online catalog may require spending more time on that portion of the seminar. Soon to be installed telefacsimile equipment will generate new services that can be incorporated into the seminar. The overall organization of the seminar is flexible enough to meet new requirements without having to start from scratch.

Perhaps the most pressing need, at the moment, concerns logistics. A permanent equipment set-up would greatly simplify the preliminary activities required prior to doing a seminar. Moving a workstation from the reference area for each presentation is a nuisance and hard on the equipment. It also removes one of four heavily used stations in the library for about a day. However, unless we can use the instructional workstation for other purposes, we currently cannot justify dedicating it to the sole purpose of the seminars. A planned building expansion with a proposed microcomputer lab may solve the problem and even permit hands-on activities during the seminar.

Another problem being discussed is the apparent incompatibility of some LCD projectors with CD-ROM display technology. Some menus and messages, especially highlighted ones, are not reproducible on the current equipment. More sophisticated projectors are available which presumably will not swallow up lines of text or even whole screens.

CONCLUSION

From experience it seems clear that bibliographic instruction designed to feature new electronic library services is needed and can be highly successful. The model described here works well as a structured, yet flexible, approach. It is hoped that it will serve as a mainframe for diversity in the future. It takes maximum advantage of staff expertise while minimizing the burden on them for presentation preparation. It has served to generate and encourage dialogue between faculty and the library. Finally, it gives the bibliographic instruction program for new technologies cohesiveness and direction. Meeting the demands of a new and complex technological approach to information storage and retrieval has caused revamping of the approach to instruction in a dynamic and responsive manner and has raised the visibility and peer recognition of librarians within the campus community.

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