Learning to use the Internet: an interactive team-taught workshop for dental faculty and staff

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At the Indiana University School of Dentistry (IUSD), faculty and staff are routinely encouraged to incorporate new technologies into their teaching, research, and patient care activities. The willingness of faculty and staff to embrace new technologies first was made evident in a survey conducted in 1989 for the Preliminary and Interim Report of the IUSD Electronic Technologies Committee, which became the foundation of the institution’s technology plan [1]. It is often difficult, however, for IUSD faculty and staff to find training in the use of new technologies that is specifically tailored to dentistry, is conveniently located, and fits into already overloaded schedules.

More recently, through survey responses and e-mail messages, faculty and staff strongly expressed an interest in learning to use the Internet. Demand for this training was so intense that there was little doubt that any needs not met through IUSD personnel and computer resources would be fulfilled through outside training, which could be more costly to the institution and might not adequately cover the subject area of dentistry. Some IUSD faculty members had already been spotted at Indiana University School of Medicine training sessions, which are excellent, but are based on School of Medicine needs and information resources.

Determined to retain some control over the quality and content of Internet training, a team of three individuals developed a three-hour interactive workshop on use of the Internet, with special emphasis on locating dental information.

BACKGROUND

According to Hollander and Lanier, “as more and more information sources become available over the Internet, academic health sciences librarians must assume a major role in disseminating this information” [2]. There are many examples of libraries taking the lead in providing Internet training [3-13]. IUSD Library quickly established itself as a source of information on the Internet through the development of the Library’s home page (URL http://www.iupui.edu/it/dentlib/iusdlib.html). The home page features text describing the Library’s services and policies, links to catalogs and databases (such as MEDLINE and ERIC), links to dental resources on the Internet, floor plans, forms for requesting interlibrary loans and computer searches, a table of contents service, and samples from the Library’s archives collection. Becoming a source of Internet information was a natural extension for the Library, because its operations had been fully automated for several years. Services include dial-in access for users in their homes and offices. It should be noted that IUSD has a fully functioning Novell server for faculty and staff, which provides e-mail, a variety of software packages for word processing, presentations, spreadsheets, and IUSD’s home page (URL http://www.iupui.edu/). IUSD also has its own computer lab and training room equipped with six Compaq Prolines, two Macintosh Power PCs, and six Sony Videodisc players. In addition, hardware for accessing library systems is available in the Library.

THE INTERACTIVE WORKSHOP

The three-hour workshop was divided into three modules. It was held in the computer lab, which can accommodate up to sixteen participants at a time. Faculty and staff were notified of the workshop via e-mail and hard copy. Response was overwhelming; the workshop was filled quickly and the waiting list was substantial.

The workshop began with a test, which was given primarily so the three presenters could gauge the Internet sophistication of faculty and staff. This information was needed for planning workshops. The test consisted of questions about participants’ experience with computers in general, e-mail, fax machines, modems, platforms (DOS, UNIX), and home computers. Participants were then asked to define the terms “FTP,” “Gopher,” “Client/Server,” “newsgroup,” and “listserv.” Test results revealed a wide range of computer experience among participants but limited knowledge of the Internet. These findings provided assurance that the prepared workshop content would be neither too basic nor duplicative of other training.

Participants were also given a generous number of handouts: a glossary of Internet terms, an explanation of listservs, a list of dental listservs, a list of government resources on the Internet, a description of the National Library of Medicine’s Visible Human project, and a print-out of the Library’s home page.

Module one

The first module, an in-depth examination of the history of the Internet, the vocabulary of the Internet,
and basic Internet access, was given by the director of IUSD's Imaging Research Facility, who used a presentation he developed with Astound 2.0. This presentation runs on both PCs and Macintoshes and includes graphics, either imported from other software packages or created by using Astound itself.

This module, running on a laptop computer and projected onto a screen, was succinct and colorful. It engaged the audience with movement and clever graphics, highlighting terms such as "FTP," "Veronica," "Gopher," "Archie," and "IP addresses." As the software ran, the presenter was able to highlight specific information and answer questions. Participants were particularly interested in how the computer "knew" where to send mail and how it retrieved information.

This presentation is available for faculty and staff to review at any time and can be updated easily.

Module two

The second module, presented by IUSD's network administrator, concentrated on Netscape. Using IUSD's home page as an example, the presenter demonstrated the Menu Bar, discussing the use of Bookmarks, Preferences settings, and Helper applications; the participants experimented with these features on the lab's computers. Setting a Telnet preference proved to be particularly important, because many of the Library's automated catalogs and databases are delivered via Telnet. The presenter identified the Tool Bar features, such as the "Back," "Forward," "Home," and "Print" buttons; the Location field, and the buttons that activate Netscape features, such as Net Search and Net Directory. The Main Window and the various cursors were demonstrated, and then the use of the Status Bar was reviewed. The module ended with a description of search engines and an in-class exercise that used IUSD's home page.

Module three

The final module was given by the head librarian, who described her lecture as an interactive home page. This lecture has been linked to the Library's home page and has received positive reviews from other librarians on campus. Tailored primarily to Netscape, the lecture covers links to other home pages and includes exercises that familiarize users with Net Search and Net Directory. The lecture not only discusses the mechanics of the Internet, but also offers a qualitative analysis of it, using the criteria developed by Katz for evaluating reference sources [14].

Participants were encouraged to think carefully about the quality, source, timeliness, organization, objectivity, indexing, and accuracy of information located through the Internet. The head librarian gave examples of when "traditional" sources of information, such as a textbook, a printed index, or a telephone call to a colleague, might be more efficient than searching the Internet, particularly when time is a factor.

The head librarian then reviewed the features and services available on the Library's home page, with particular emphasis on the dental sites that can be accessed (URL http://www.iupui.edu/it/dentlib/sites.html). Some of these sites are quite substantive, particularly The Dentistry Homepage at the University of Pittsburgh (URL http://www.pitt.edu/~cbw/dental.html), the University of Connecticut School of Dental Medicine (URL http://sdm.uoch.edu/), and Internet Dentistry Resources at the University of Iowa (URL http://indy.radiology.uiowa.edu/Beyond/Dentistry/sites.html). The head librarian also demonstrated how to search the Library's catalog and MEDLINE through the home page.

ASSESSMENT AND PLANNING

Feedback forms, which were completed by participants anonymously, reflected an overwhelmingly positive response to the workshop and indicated that its length, level of difficulty, and topic coverage clearly matched the needs and expectations of the audience. Because most participants expressed an interest in "hands on" experience, the head librarian is developing a set of reference questions that can be answered through the Library's home page, the IUSD home page, Net Search, or Net Directory. These questions will be added to the end of the interactive lecture and will be changed periodically. Participants also indicated a need for more in-depth training, particularly in locating information specifically related to their interests, and an interest in attending regular workshops so that they can learn about new information technology tools as they appear.

Participants did note that they found the use of Gopher, the most readily available Internet search tool, to be confusing. This response may help motivate IUSD administrators to upgrade faculty and staff computers and network access so that Netscape can be the Internet browser of choice at IUSD.

CONCLUSIONS

The three-hour interactive workshop benefited both participants and presenters. The participants learned a substantial amount of information about using the Internet in a short amount of time and at minimal cost to the institution. They learned how to locate resources specific to their subject areas. They also learned how to use the Internet via Netscape, which
is available through IUSD’s server and is a superior way to access dental information because graphics can be vital to understanding the text. In addition, participants were exposed to a variety of teaching techniques, from presentation software to an interactive lecture built as a home page, all of which may be applicable in their own teaching.

The presenters enjoyed working together on an innovative project and distinguished themselves in the campus community as being “in the know” about information technology. The workshop was an excellent way to showcase cooperation among IUSD personnel and recognize the unique yet complementary missions of the three presenters’ departments.

**REFERENCES**

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**Faculty involvement in problem-based library orientation for first-year medical students**

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The curriculum for undergraduates is in transition at the Quillen College of Medicine, East Tennessee State University (ETSU). The Medical Student Education Committee (MSEC) has assigned subcommittees to revise the curriculum and created a list of objectives that undergraduates are to achieve before graduation. Among other objectives, students are to acquire problem-solving and lifelong-learning skills. Although ETSU has no formal problem-based learning (PBL) curriculum, an increasing number of faculty members use PBL techniques informally. This paper reports on a 1993 PBL module designed to introduce first-year medical students to library research skills.

Problem-based learning techniques have been used in library bibliographic instruction since the 1980s. For example, Watkins summarized a 1991 self-study of librarians affiliated with institutions with formal PBL curricula tracks and described library faculty responsibilities and user needs unique to PBL. She emphasized that librarians may fulfill many roles—as traditional service providers, as resource persons, as faculty, or as tutors or facilitators. In particular, the