A case against instructing users of computerized retrieval systems

By Mary Jean Pavelsek

Reference Librarian
Stern School of Business
New York University

Handouts are successfully replacing workshops as training for computer-literate students.

I t is time to reconsider the level of instruction that can or should be offered to end users in academic libraries. The average computer user is vastly more computer literate today than only a few years ago. This is especially true in colleges and universities, where many students have had broad exposure to computers and have taken data proc-

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essing courses in high school or college. The number of public schools using microcomputers has risen sharply in recent years. Between fall 1981 and fall 1986, the proportion of public schools possessing computers rose from 18% to 96%.[1] Moreover, many students own personal computers and use them regularly. In 1989 approximately 5 million personal computers were sold for home use.[2] This familiarity naturally reduces the time necessary to learn new systems.

Computerized information retrieval systems, both online and on CD-ROM, have been available to the students at the Stern Business Library for several years. During this time, various methods have been used to ensure that students derive maximum benefit from these new technologies. These methods have evolved from mandatory workshops for students who wished to use computerized resources to optional workshops for students lacking the requisite skills, and finally, to handouts only. The rationale for no longer offering user instruction except in the form of prepared handouts, designed to introduce the basic characteristics of a product and describe how to retrieve the kinds of information graduate business students are most likely to want, will be the focus of this discussion. Whether end-user instruction is still necessary or practical at the college level will be considered, and the position that it is not will be substantiated through the actual progression of events at the Stern Business Library at New York University.

Background

In the past, using online information services was the prerogative of the information specialist, and the public had essentially no exposure to them. They were not designed to be used without sub-

stantial training. In recent years, however, user-friendly, menu-driven systems have been developed that permit users to become proficient searchers in a relatively short time. Menu-driven systems have allowed computerized information retrieval to become an integral part of daily life in college libraries, not only for librarians, but for students as well.

The availability of menu-driven, user-friendly systems and the greater computer sophistication of most college students are two important factors contributing to the reduction, if not the entire elimination, of the need for end-user instruction. Another factor is that the problem of cost has been greatly mitigated. CD-ROMs have no user or online fees. Academic subscriptions to online services with reduced or blanket rates have eliminated the need to restrict students to online searching during off-peak hours or for very brief sessions. As a result of this new freedom, users have the leisure to gain hands-on experience in a relaxed setting.

The Stern Library experience

The first online system, other than the online catalog, which the Stern Library made available to students was BRS After Dark, a system specifically designed for nonprofessionals to use during non-peak hours at a reduced rate. This was in 1986, when online database searching was relatively new even to information professionals, and the students' exposure level to such products was either extremely low or nil. Even during the rather restrictive off-peak hours during which the database could be accessed, an hourly connect charge was incurred. For these reasons, offering the service to students without requiring them to have previous instruction was not even considered. Mandatory workshops were presented, but the success rate of the students was very low. They mainly constructed one-word searches, and their results tended to be too broad or even irrelevant. Due to the students' lack of computer sophistication and the inconvenient hours the system was available, BRS After Dark never became popular at Stern, and it was eventually dropped.

Subsequently, the Dow Jones News Service was offered to the student body, and even though the version used was menu-driven, it posed enough challenges to the students that we had to require them to attend workshops before they could use it. To have done otherwise would have created havoc at the reference desk. It would have been necessary to have two librarians on reference duty all the time: one to answer reference questions and the other to answer the questions generated by Dow Jones. The workshops, along with multi-page handouts, noticeably cut down on queries from Dow Jones users. However, the workshops posed problems of their own. Many staff hours were required to prepare and present workshops and handouts, for one thing. For another, because our students have widely varying schedules, difficulties were encountered in scheduling workshops—which, incidentally, had to be limited to eight people. There were always students who claimed they could not attend any of the scheduled workshops. We were forced to deny access to them; to have done otherwise would have rendered the workshop requirement worthless, leaving us with an onslaught of Dow Jones questions.

These complications made for an inordinate number of unpleasant confrontations at the reference desk, not to mention many unhappy and

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disgruntled students. As the complaints grew, we decided to continue to hold workshops, but to make them optional, and hope that we would not be overwhelmed with questions. For several semesters these sessions remained well attended, but eventually attendance was so low that they were discontinued.

When workshop attendance was made voluntary, there were still many Dow Jones questions at the reference desk, but we were convinced that voluntary attendance at the workshops reduced the number of questions we received. As time passed and fewer and fewer people attended workshops, however, the number of questions about Dow Jones steadily fell. It is now rare indeed that a student asks for help in using any of the computerized systems available here.

It might be argued that the workshops became unnecessary because we had managed to instruct all the end users who required or desired it, but that simply is not the case. New students arrive every semester, and we have had no problems with users of Dow Jones, even though we have offered no workshops on Dow Jones for over two years. What emerges is that students are arriving at the library better equipped to deal with such products than they were in the past.

Increased user sophistication, the proliferation of menu-driven, user-friendly systems, and such enhancements as automatic logon have helped create this new situation. Even when workshop

attendance was mandatory, the number of questions from Dow Jones users was much greater than it is now, when no classes at all are offered. Now the most frequently asked questions come from first-time users who simply want to know what type of information is available from the system or what the procedure for downloading is. This is further testament to the new skill level of incoming students. Whereas downloading used to be a procedure that only an experienced computer user would attempt, it is now a matter of course. (Printers are not available to the students using computerized information retrieval products at the Stern Library. If they want to save information, it must be saved to a diskette and printed out at another location in the library. This makes for more selectivity when saving information, and it frees up the computerized information resources for use by other students. Scourges such as paper jams and running out of paper and ink have been eliminated from our daily routines.) In the past, a proposal not to have printers would have been unthinkable, it would have left us with so many unhappy and confused students. Now it seems unnecessary to make printers available.

The more computer literate the students become, the fewer demands they make on the library staff. As a result, it becomes feasible to provide even more end-user services. It would be completely impractical, if not impossible, to offer instruction on every service. Fortunately, the problem of teaching students to use the ever increasing number of computerized services seems to be solving itself; as the number of available services grows, so does the exposure level of the students, making successive systems easier to learn.

Prepared handouts

ABI/INFORM on compact disc was eagerly awaited at our library. A database containing indexing and abstracts from over 800 business and trade journals, it was heavily searched online by librarians here for faculty research and occasionally for ready reference. The costs, however, prohibited end-user searching. ABI on compact disc has no per-user fees, and of course, there are no online costs. The students had heard about this system from colleagues, faculty, and business associates, and they could not wait to use it. We realized that we would soon be deluged by customers. This time, we were prepared. Instead of offering training sessions, we produced handouts that outlined the basic procedures and applications of immediate use to our students. In the graduate business setting, for example, students often want current company information, so the handout described the most efficient way to find that particular information, using ABI.

We now encounter very few students who have problems using ABI. A short handout and hands-on experience appear to be far more effective than workshops, which did not afford adequate practice. It is much easier to gain proficiency through actual experience than by reading or listening at a workshop. Prior to the advent of academic passwords and CD-ROMs, the prohibitive cost of database access made it impractical to allow students simply to sit down before a terminal with little notion how to begin, while the minutes ticked away, and the online bills mounted. Now users can experiment in a leisurely manner, and they can take time to construct more thoughtful searches that retrieve more concise and more relevant results. As Meyer observes about CD-ROMs (and the same may be said about online systems with one-time subscription fees), "It is not necessary 'to think on your feet' while searching...; there are no consequences for mistakes, pauses, deadends, or consultation with the manual. All in all, it's a much friendlier situation."[3]

Currently, New York University Libraries offer nearly 20 end-user products, and more will be acquired in the near future. Obviously, it would not be feasible to provide instruction for each, and fortunately that is neither necessary nor desired. College and graduate students of today possess a much higher degree of computer literacy than students of only a few years ago, and they are capable of using the menu-driven databases available in most college and university libraries without special instruction.

Of course, there will always be students who do require additional instruction. Time constraints permitting, individualized help may be offered. At the very least, users can be directed to product literature designed to get them on their way. Actually, in the recent experiences of Stern Library staff, such students are rare.

One problem that does remain to be addressed is the apparent lack of understanding by both students and faculty about what types of information are available on computerized systems and what can reasonably be expected of them. It is a common misconception that computerized information retrieval systems somehow offer a magical solution to all research problems. When users understand where the information is originating and how it is organized, they will be able to search more intelligently and successfully. For now, however, most students have acquired the computer skills they need to be successful end users.

Editor's note: A different tack is being followed by New York University's main library, Bobst Library, which is experimenting with Dialog's Classmate program this semester. According to Lise

search committee to fill the position of Assistant University Librarian for Public Services for their library. They were instructed to assume that all candidates met the minimum levels of education and experience for the position. Presented with fifteen statements purportedly taken from different curriculum vitae, the participants were asked to rank the importance of each item for their library on a scale of 1 to 5, where 1 is the lowest and 5 is the highest.

Individual rankings for each item were presented for discussion under the categories of "Fellows," "Directors," and "Institution." Aggregate rankings for the group as a whole were later calculated by the authors. They showed national and international activities to be clearly favored over local and state activities, with all the local activities ranking below the median. Publications were also highly valued, ranking above the median, with both book authorship and editorship in the top quartile. Community service fell into the fourth quartile, while professional service and librarianship were scattered throughout the rankings. All participants ranked lowest a university library committee position, "Secretary, Library Nominations Committee, State University."

Northwestern University and University of Chicago participants ranked highest a service activity, "President-elect, Reference and Adult Services Division, ALA," while the University of Illinois at Chicago participants ranked highest a publication record, "Author, *Public Services in Academic Libraries.*" This may reflect an understanding of the importance placed on publications by the promotion and tenure criteria at the University of Illinois at Chicago. Moreover, the UIC participants ranked all items nearly identically (with a difference of no more than one point). This, too, appears to reflect a clear understanding of the requirements for tenure and promotion at UIC.

The fellows ranked 12 of the 15 items higher than the directors and governors did. This may be attributable to the difference in years of professional experience between the two groups.

This exercise was received enthusiastically by fellows, directors, and governing board members. It generated much discussion, and all participants asked to receive copies of the resulting rankings for further study and possible use in their libraries.

The benefit of this exercise is that it allows perceptions to be measured and then provides a natural forum for examining, comparing, and contrasting those perceptions. Thus, the exercise can be used as a platform for discussion of values and can facilitate communication between staff and management. It also may engender reevaluation of professional activities in job descriptions, search and screen guidelines, and promotion and tenure criteria. Ultimately, this exercise may help build staff and administrative consensus regarding the value of professional activities. ■■

Dyckman, Reference Librarian for Instructional Services, Bobst is running a series of workshops to teach students (both graduate and undergraduate) and faculty to access any of Classmate's 108 databases. The workshops combine instructional materials from Dialog with materials produced in-house specifically for this project. They cover such techniques as key-word searching, boolean logic, strategies for maximizing search time, and downloading results onto a disk (which works three times as fast as printing results). The pilot workshops are

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Bobst's first comprehensive effort to train students and scholars to access online resources without mediation by a librarian. At the end of this semester, the library plans to evaluate the success of the workshops and the success students have searching the Classmate databases before deciding whether to continue participation in the Dialog Classmate program. In addition to the experimental workshops, Bobst Library offers a full menu of bibliographic instruction, including sessions for freshman English classes, on-demand instruction for upper-level undergraduate and graduate courses, and classes in library resources for students undertaking dissertation projects in the graduate schools at NYU.—*Sandra Naiman*

[1]U.S. Department of Education, *Digest of Education Statistics 1989* (Washington, D.C.: Government Printing Office, 1989), 393.

[2]Electronic Industries Association, *Electronic Market Data Book* (Washington, D.C.: Electronic Industries Association, 1990), 25.

[3]Rick Meyer, "From Online to Ondisc," in *CD ROM: The New Papyrus* (Redmond, Wash.: Microsoft Press, 1986), 509–16. ■■