

ONLINE DATABASES
Teaching Student Searchers

By Carol Tenopir

MUCH HAS CHANGED IN MY 30 years of teaching library and information science (LIS) students about online searching. Certainly the specific systems and hardware have evolved but so has the role of the librarian; access, which is now 24/7; the sources, which are now often questionable; and users' expectations, which are that practically everything can be found online. At the annual meeting of the Association of Library and Information Science Education (ALISE) in January, several sessions touched on the way we teach searching.

What is taught

Scott Nicholson, assistant professor, Syracuse University, NY, studied the syllabi and reading lists from general online searching courses in the top ten LIS programs in the United States. A total of 23 syllabi from these schools yield over 400 required readings.

Dedicated online searching courses most often use the DialogClassic or similar systems the majority of the class. They also usually cover "end user searching, web search tools, other databases, search strategies, comparison of tools, and some information retrieval theory," Nicholson said. Reference techniques and discussion of controlled vocabulary, a part of searching classes since the 1970s, now share the classroom with web search strategies and end user issues.

Nicholson also examined the reading lists. Required reading is quite scattered, and, "surprisingly, a core set of readings did not emerge from this analysis." Only three readings were listed in five courses (the most frequent), with an additional ten required in three courses. Two textbooks were assigned in five (21 percent) of the courses: *Dialog Lab Workbook* (Dialog) and Geraldene Walker and Joseph Janes's *Online Retrieval: A Dialogue of Theory and Practice* (Libraries Unlimited, 1999).

Other than the textbooks, only one reading made it in at least five syllabi—Marcia Bates's 1989 "The Design of Browsing and Berrypicking Techniques for Online Search Interface." Ironically, not only is it over 15 years old, it was published in *Online Review*, a journal that no longer exists.

This column landed me in the top spot of most frequent authors (but with quite diverse choices of specific readings), followed by Bates, Dialog, and Gregg Notess, who writes a regular column on web search engines. A full list of the most frequently listed authors and article titles can be found in Nicholson's full paper in the *Journal of the Medical Library Association*.

> Librarians face an uphill battle in library instruction

The lack of a core set of readings may reflect badly on the consistency of LIS curricula, but analysis of the topics reveals common themes. Web-based search tools are most commonly covered, followed (in order) by fundamentals of information science/information retrieval, end user searching, comparison of multiple databases, library services, search strategies (including logic and thesauri), and Dialog and other commercial tools. If you employ recent graduates, these are the topics you should expect they know.

User instruction

Surprisingly, Nicholson did not find many readings specifically on user instruction, although those he classified as "end user searching" may touch on instruction. Many schools have a separate elective on user instruction because instruction in the use of online resources is increasingly a part of reference librarianship.

Soo Young Rieh, assistant professor, School of Information, University of Michigan, studies how library users perceive searching library systems compared with the web and questions why most people put so little effort into learning and searching library systems (www.si.umich.edu/rieh). It is no surprise that she found undergraduates perceived library searching as much more difficult than web searching. Their overall self-confidence in web searching (before searching on a topic provided by the researcher) is much higher than in searching the library system.

As her subjects searched the tasks she provided, Rieh noticed they actually found the web more difficult to search than expected. But when searching the web, they blamed themselves when they couldn't find what they wanted; when library searches were unsuccessful, they blamed the system and the interface. Subjects reacted in emotionally positive terms to the web—using words like "easy," "familiar," and "enthusiastic." Library searching elicited more negative descriptions, including "complicated," "overwhelming," and "confusing."

Et tu, Sisyphus?

Unfortunately, this research points out that librarians face an uphill battle in library instruction, complicated by perceptions and emotional expectations and reactions. Courses in online searching must incorporate not only user instruction but fundamentals of user behavior and perceptions of online interactions.

A dash of psychology, a touch of instruction, a dab of theory and structure, mixed with a full serving of commercial and web system specifics, make online searching curricula fuller than ever. It cannot be covered in a single basic course, but those basics form a foundation for teaching online sources, services, and searching throughout the LIS curriculum.

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