Teaching students to evaluate Web sources more critically

Implications from a faculty workshop

by Janet R. Cottrell

Uncritical use of Web resources by students is one of the chief complaints of both librarians and classroom faculty members. On many campuses, library instruction includes information and exercises to help students evaluate Web sites more critically. But an anecdote from a faculty workshop conducted at a mid-size university indicates that we may need to expand our efforts to reach another audience: the faculty.

Introduction

Librarians and classroom faculty alike decry the uncritical use of Web resources by students at all levels. Students may fail to distinguish between very different types of sources on the Internet, from a random Web page to a full-text article in a refereed journal.

As Thomas Kirk notes, ". . . the user must work harder to detect the clues that will help evaluate the [Web] texts. . . . As many have pointed out, the unevenness in the quality and nature of resources found on the Web has made instruction about how to evaluate these resources essential."[1]

Similarly, J. Kapoun identifies common instructional needs and provides a checklist of evaluation criteria to help students judge Web resources more carefully.[2]

This common interest in improving students' use of the Web serves to bring classroom faculty and librarians together. Dickstein and McBride describe how one librarian and instructor teamed up to develop instruction and assignments aimed to improve Web evaluation.[3] They report an unexpected bonus: not only did students select and assess Web sites more critically, they also began applying the same critical skills to reference materials, journal articles, and books.

Focusing on Web use and evaluation provides an opportunity for librarians to develop faculty workshops in addition to student instruction. Hall reports a case where more than one-third of the faculty had been at the institution for 25 years or more.[4] Clearly experts in their fields, many of these faculty were quite familiar with journal research, while quite unfamiliar with technology. Hall describes faculty workshops incorporating a discipline-based approach to online searching, so that the instruction could be more easily integrated into the student curriculum.

Hall notes, however, that the workshops designed for classroom faculty were not easily adapted for students: the faculty already knew many basic concepts about using indexes and just needed updated methods for

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using technology-based resources, while students needed more fundamental instruction.

Underestimating the level of training that students need is a common problem. Pixie Anne Mosley reports that while many faculty now understand the need for information literacy instruction, they are not clear about how to incorporate it into their courses.[5] The faculty in Mosley's workshops found it difficult to remember that students don't arrive at college with an innate understanding of effective library use. Gloria Leckie reports a similar disjuncture, noting that faculty assume that students are already aware of various kinds of sources and how to use them.[6] Faculty also assumed that students probably wouldn't need much help from librarians.

A faculty workshop at a mid-size state university points out a related mistaken assumption. Conducted primarily by library and computing center staff, the four-day workshop for classroom faculty from various disciplines focused on using technology to address pedagogical challenges, including ways to help students find, assess, and use information more effectively, improve student participation, facilitate learning across distance and time, and so on.

Faculty were accepted into the workshop based on proposals in which they identified challenges encountered in their teaching, explained how a technology-based intervention might help, and proposed a tentative plan. Participants were awarded a moderate equipment allowance after the workshop to help implement their plans. The workshop itself is described in detail elsewhere,[7] but one unexpected outcome holds implications for librarians working with faculty to improve students' Web use.

What the faculty said . . . and didn't say

The first day of the workshop focused on information literacy. At the end of a full day spent studying topics related to finding and assessing information, the participants were divided into small groups of three-to-five people and asked to generate a list of criteria for evaluating Web sites as sources of information.

The purpose of this exercise was to provide a chance for faculty to itemize the criteria they hoped students would consider when evaluating Web sites as potential information sources, and to illustrate an exercise the faculty might in turn wish to use with their students.

Faculty were specifically instructed to think about how they wanted their students to evaluate Web sites as sources for term papers or other assignments. Each group wrote their criteria on a transparency; the transparencies were then collected, projected, and discussed.

During the discussion, it was obvious that many of the criteria listed by faculty concerned the graphic design and usability of Web pages rather than their information content. This was surprising, since the exercise specifically asked faculty to define how they wanted their students to evaluate Web sources before citing them in papers.

After a full day working on information literacy concepts, the workshop organizers had expected faculty participants to have a clear idea of the concepts of authority, accuracy, currency, and so on, which they apply so readily to print sources. In fact, the exercise was almost omitted from the workshop for fear it would be too elementary or even condescending. Because of this disparity between expectation and event, the transparencies were retrieved and studied more closely after the workshop.

Figure 1. List of Web evaluation criteria from one faculty group

- Identifiable—accreditation of source
- Needs to load quickly
- Links to other sites
- Accessible on older versions of browsers
- Can link to other sites
- Good to navigate (back links, navigation bars)
- Clear directions
- Credentials of site or individual
- Links are updated (that is, the target pages do exist)
- Well-organized
- Aesthetically pleasing
- Letterhead/visuals are clear

As Figure 1 indicates, this group of participants mentioned the need for an identifiable source, the need for credentials of that source, and the need for well-organized information. Each of these three criteria re-

flects some quality of a Web site that concerns its worth as an information source. However, the remaining 12 items on their list concern the speed, layout, navigability, linkage, and similar aesthetic or usability features of a site.

The criteria listed by the other groups followed a similar pattern. The five groups produced a total of 46 criteria, with some duplication among the lists. Nearly two-thirds of the criteria reflect design or usability rather than information content. Speed, presence of links, and navigability were each mentioned by three groups, and aesthetics or appearance were mentioned by four of the five groups. In all, 30 of the 46 items in the total list concerned design or usability rather than content.

The remaining criteria, about a third of those listed, did reflect standard criteria for evaluating information sources. These included criteria such as identification of the source (mentioned by three groups), credibility of the source (mentioned by two), appropriateness or relevance (mentioned by two), and a few others, such as clear statement of purpose, currency, inclusion of references, indication of peer review, and so on (each mentioned by one group). In all, only 16 of the 46 items reflected these and similar criteria related to information content. Furthermore, some of the most basic traditional criteria for evaluating sources were not mentioned by any group. Accuracy of information, objectivity of presentation, and coverage were omitted.

This pattern of emphasizing design over information held for all but one of the groups. That group listed only five items, compared to an average of about ten items for the other groups, but four of their five items concerned information rather than design.

The group wrote on its transparency: "Critical review on Web does not differ from critical review process of print materials"—a primary point of the exercise which was expected to be obvious to participants. Although one member of the group was a librarian, she denied contributing heavily to the items, particularly the item quoted. In fact, the person who contributed that particular item turned out to be the university Webmaster, a computer programmer of many years and a confirmed "techie."

Perhaps classroom faculty, like students, are simply unaccustomed to articulating information-related criteria.

Implications of the workshop

The Webmaster quoted above later asked, rhetorically, "What did the faculty miss about that exercise? What prompted them to focus so on design?"

What, indeed? Perhaps it is human nature to respond first to the appearance or "glitz" of a Web page. Perhaps classroom faculty, like students, are simply unaccustomed to articulating information-related criteria. Certainly the workshop discussion revealed that these particular faculty members had never articulated useful evaluation criteria to their students. And without clear articulation of criteria, students are less likely to evaluate Web resources effectively.

This exercise highlighted for faculty the difficulty their students face in effectively evaluating Web resources. It also illustrates quite dramatically the fallacy of assuming that criteria for evaluating Web resources are obvious and intuitive.

This last point is perhaps the most telling. If nothing else, this workshop provides a useful insight to keep in mind for future conversations in which students are derided for uncritical use of Web resources. It also identifies another potential area of instructional outreach for academic librarians: helping classroom faculty to articulate clearer criteria for their students to follow as they evaluate Web sites for use as sources.

Notes

1. Thomas G. Kirk, "Course-related bibliographic instruction in the 1990s," *Reference Services Review* 27, no. 3 (1999): 235–41.

2. Jim Kapoun, "Teaching undergrads Web evaluation: A guide for library instruction," *College & Research Libraries News* 59, no. 7 (July/August 1998): 522–23.

3. Ruth Dickstein and Kari Boyd McBride, "Listserv lemmings and fly-brarians on the wall: A librarian-instructor team taming the cyberbeast in the large classroom," *College & Research Libraries* 59 (1998): 10–17.

(continued on page 186)

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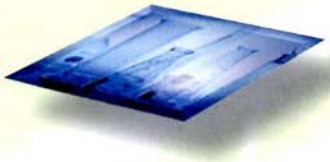

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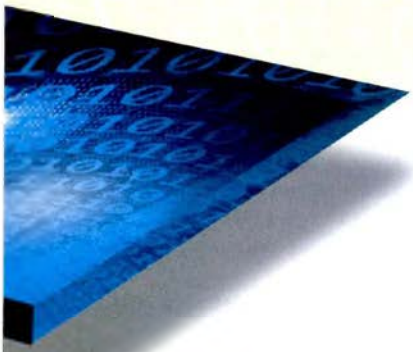

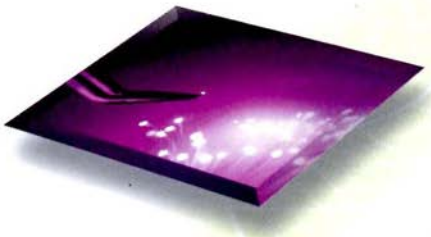

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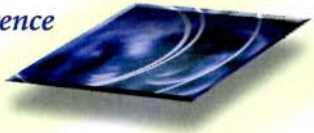

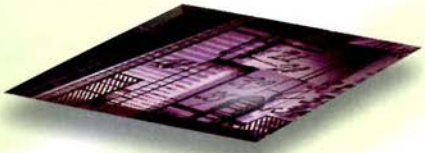

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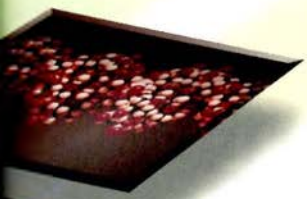

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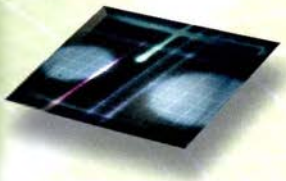

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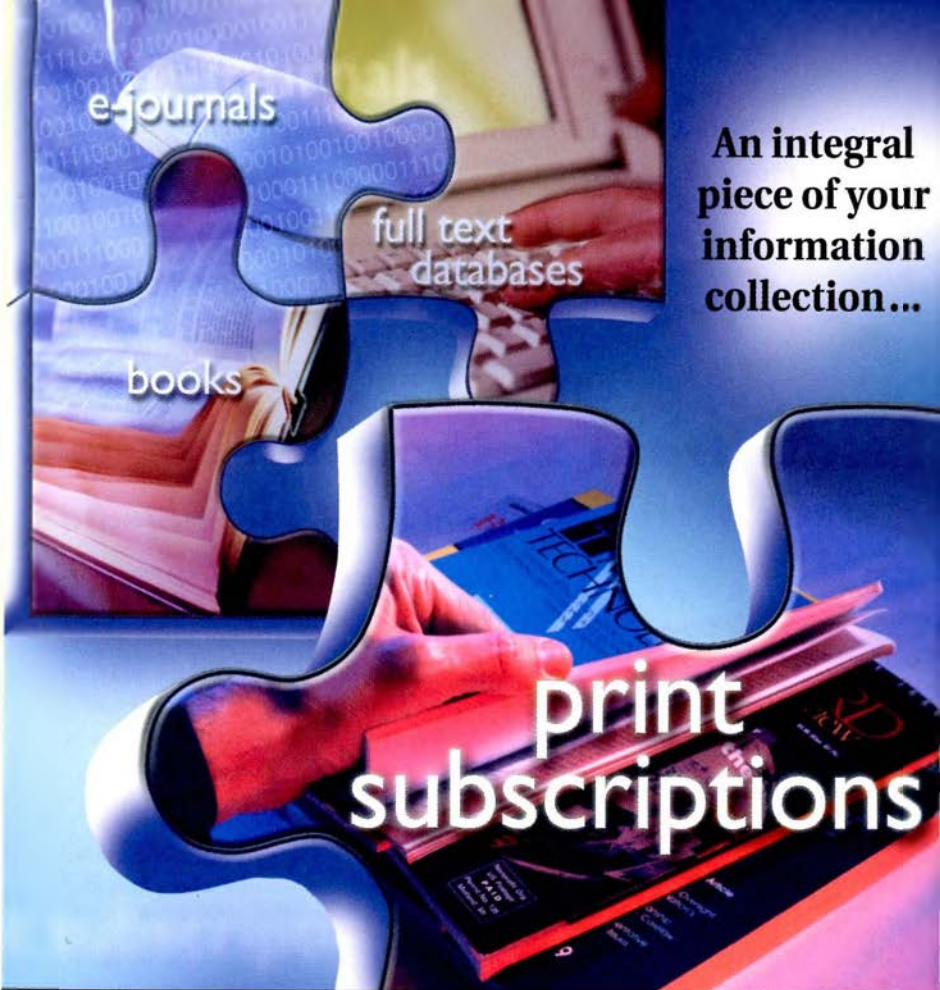

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tomation at the University of Ghent in Belgium, delivered the closing plenary address on the Open Archives Metadata Harvesting (OAMH) protocol and implications for scholarly communication. His presentation can be found on the CNI Web site at www.cni.org.

Van de Sompel described the OAMH protocol as "a low-barrier interoperability specification for the recurrent exchange of metadata between systems." The OAMH protocol allows for federated services such as SDI, alerting, and linking services; database synchronization; and harvesting the deep Web. The OAHM protocol advances the interoperability of electronic preprints as a means to promote their global acceptance as a "decomposed" scholarly communication system.

Van de Sompel posited that in the current scholarly communication system, it is increasingly difficult for libraries to fulfill their fundamental role of safeguarding equality of access to scholarly information. He encouraged libraries to rethink themselves and to become proactive in exploring alternatives for scholarly communications, like the OAI (see http://www.openarchives.org/).

Concluding that there are new opportunities for shaping a sustainable scholarly communication system, van de Sompel outlined the advantages libraries bring to the mix. Libraries are close to authors; are in a good position to archive institutional materials; are quick to embrace new technologies; have very knowledgable people; provide a level of redundancy in services that is no longer required in a digital environment; and safeguard equity of access through global representation.

Van de Sompel warned that libraries as organizations are slow moving, hosted by slowly moving institutions; that libraries are slow to recognize that a new technology may allow for new modes of operating; and that the information world runs on Internet time.—*Betsy Wilson* ■

("Teaching students. . ." continued from page 143)

4. Leilani Hall, "A homegrown program for raising faculty information competence," *Computers in Libraries* 19, no. 8 (1999): 28–34.

5. Pixey Anne Mosley, "Creating a library assignment workshop for university faculty," *The Journal of Academic Librarianship* 24, no. 1 (1998): 33–41.

6. Gloria J. Leckie, "Desperately seeking citations: Uncovering faculty assumptions about the undergraduate research process," *The Journal of Academic Librarianship* 22 (1996): 201–08.

7. Janet R. Cottrell, "Information literacy, computer literacy, and good teaching practices: Firm foundations for faculty development." *Academic Exchange Quarterly* 3 (Fall 1999): 43–51. ■

("Community sciences . . ." continued from page 162)

• **MedLine.** This is the primer biomedical database from the National Institutes of Health, which comprises the Index Medicus, Dental Literature Index, and the International Nursing Index. It provides the most comprehensive coverage from more than 3,500 journals in all areas of medicine. *Access:* http://www.nlm.nih.gov/databases/freemedl.html.

• **UnCover.** Table of Content and fee-based fax document delivery service to more than 18,000 journal titles from 1988 to the present. Use the UnCover "C"omplete service for older material. UnCover also offers articles from more than 2,500 journals via UnCover Desktop Image Delivery. *Access:* http://uncweb.carl.org/. ■

("Building community . . ." cont. from page 167)

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Final recommendations

A final recommendation is the *University of Connecticut Libraries Partnerships* guide. It includes "Selected Examples of Current Partnerships"; "Forming New Partnerships: A Guide"; "Library Criteria for New Partnerships"; "Reviewing Existing Partnerships"; and a "Partnership Proposal Form" (http://spirit.lib.uconn.edu/information/PartnershipDocument.html). ■