Web authorware and course-integrated library instruction

The Learning Links project at Rutgers University

by Martin Kesselman, Delphine Khanna, and Lourdes Vazquez

The Web is providing new opportunities for teaching and learning. The Web is a dynamic environment where distributed information can be accessed without constraints of geographic location or time. In the Web environment, it doesn't matter if the user is accessing library or instruction resources from a computer in the library, from a computer lab elsewhere on campus, or in the middle of the night from his or her home.

Web-based teaching also enables self-directed, self-paced instruction. Students can set their own pace, thanks to navigational mechanisms, which allow them to repeat sections or move around within the tutorial until they feel they have assimilated the materials. Self-assessment tests give students further control over the learning process by providing them with immediate feedback on their progress.

A slide from a PowerPoint presentation on course-integrated instruction.

Web-based teaching promotes active learning by emphasizing activities of exploration and discovery and by making it easy for s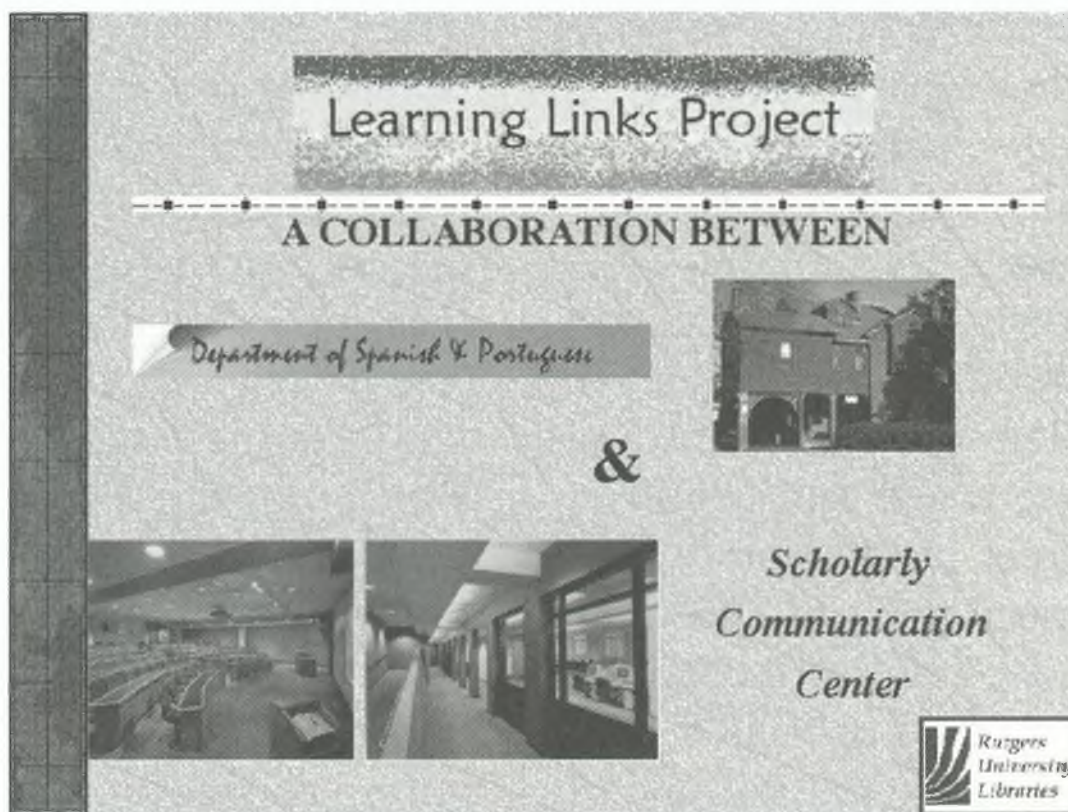tudents to create their own materials (that is, to publish their own Web pages). Web-based teaching emphasizes collaborative learning by allowing the students to interact with the instructor and other students via e-mail, online chat, and threaded discussion groups.

Finally, it is easy to "log" activity on a Web site, thus allowing the instructor to monitor learning and determine the effectiveness of the instruction provided.

Tools

Several authoring systems are now available to develop Web-based instructional tutorials. Older packages involved learning on a stand-

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Web Authorware Features

- Presentation management
- Can include graphics and audio/video files
- Threaded discussions / Online chat
- Auto-marked quizzes
- Course calendar
- Student progress / Grading
- Little HTML knowledge needed

chat

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alone PC, with the learners working on their own. Newer Web-based packages offer various tools to create teaching units seamlessly integrating text, graphic, audiovideo files. Other tools include options for threaded discussion groups and chats, course management features allowing the students to check their grades, online quizzes that can be graded automatically or manually, a course calendar, and the ability to review their classmates' homepages. The instructor can also track the students' progress. To use most of these packages, minimal knowledge of HTML, if any, is necessary. Many of these packages have free demonstration versions available for download on their Web sites.[1]

At Rutgers University, we are using one of these packages, WebCT, in a collaborative grant-funded project between the Spanish and Portuguese Department and the Scholarly Communications Center of the Library. The project, entitled "Learning Links: Reading, Writing, Information, the Web, and the World," is organized around a series of WebCT Web sites developed to support various undergraduate Spanish literature classes.

With Learning Links, students develop their reading and comprehension skills in Spanish and expand their knowledge of Iberoamerican culture and literature. With the help of the Spanish, Portuguese and Latin American librarian and other Rutgers librarians focusing on Web technologies, resources found on the Web and in the library are being incorporated into the Web sites. These include literary texts, authors' biographical information, literary criticism, cultural information, and demographics. Audiovisual materials found in the Media Center, such as songs and clips of plays or mov-

ies that may have been adapted from the texts studied, are added to the WebCT Web sites, as well.

Students are also learning how to search the Web and how to evaluate relevant Web sites they discover on their own.

Learning communities

A unique aspect of this program is the development of learning communities. Students in upper-level undergraduate classes are creating Web sites as writing assignments, providing cultural and historical information in Spanish that is relevant to the readings scheduled in the lower-level courses.

These students are also researching and identifying links for existing Web sites in Spanish, and are working with the Spanish, Portuguese and Latin American librarian to learn to search the Internet and the library catalog and databases for monographic, periodical, and primary documents.

Students will not only be developing information literacy, but technical literacy, as well. As a final product, students are developing their own Web site using Netscape Composer or creating a presentation using Microsoft PowerPoint.

Graduate students are involved in the preparation of the various multimedia materials and in teaching the Web-based courses. These activities allow them to experiment with cutting-edge teaching technologies, which provides them with the skills they will need to become the education professionals of tomorrow.

More generally, students at all levels are encouraged to interact with the librarians involved in the project through training ses-

Learning Links and Web-CT

- Utilizes digitized texts and multimedia
- Web environment allows for integrating:
  - Vocabulary practice/Glossary
  - Literary criticism
  - Demographic and cultural information
  - Author biographical information
- Librarian is an integral part of the course through teaching and discussion groups.

WORLD WIDE WEB COURSE TOOLS
webct

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sions, one-on-one consulting, participation in threaded discussion lists, and e-mail. The Rutgers Libraries' Scholarly Communication Center is building a laboratory for students to work on computers as a group or on a one-on-one basis with the librarians.

The library component of the project will be evaluated based on the relevance of the print and Web resources selected by the students and on the rationales used to select these sources (such as authority, scholarship, timeliness of data, etc.). The diversity of information resources presented by students in their assignments will be compared with the output of classes that have not received instruction via WebCT and which have only had a traditional one-class period session on the library and information resources.

The WebCT logs will be analyzed to measure how frequently each text and multimedia resource on the site has been accessed by the students. The frequency at which the students e-mailed librarians and participated in threaded discussions moderated by librarians will also be measured.[2]

A crucial role of the library in the Learning Links project is to assist teaching faculty and instructors with copyright issues.

With the enactment of the Digital Millennium Copyright Law in 1998, dealing with copyrights in the digital environment has become even more complex and confusing. Librarians can provide leadership in the use of copyrighted materials online. For the Learning Links project, librarians and instructors have held several meetings to discuss copyrights and fair use issues.

The four factors of fair use

The highlights of our discussion on the four factors of fair use—purpose, nature, amount, and market were the following. For the "purpose" factor, a strong argument in favor of fair use is that the Learning Links project is digitizing text and media for educational purposes. For the "nature of the information" factor, a good point is that the materials we've digitally reproduced are already published in print or on the Web, while they do not constitute textbooks or workbooks. For the "amount" factor, we know that smaller is better. The more we limit the size of excerpted texts, video and music, the more likely it is to be a case of fair use. Finally, for the "market" factor, it is unlikely that students would be buying the books from which the texts are excerpted.

At the end of these discussions, librarians and instructors have agreed on the following points. First, it is important to take advan-

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Resources for Web-based teaching

Learning links
- http://scc01.rutgers.edu/lrnlinks

Web-based authorware
- *Blackboard*   http://www.blackboard.com
- *Easy T*   http://www.globalpresence.com.au/easyt
- *Learning Space*   http://www.lotus.com/learningspace
- *Toolbook II*   http://www.asymetrix.com
- *Top Class*   http://www.wbtsystems.com
- *Web Course in a Box*   http://www.madduck.com
- *WebCT*   http://www.webct.com

General resources
- *ACRL Instruction Section's Web Design and Evaluation Criteria* http://www.bk.psu.edu/academic/library/istm/criteria.html
- *Training Resources Bookmark* http://www.rci.rutgers.edu/~scholzcr/etech/training.html
- *WBT Information Center* http://www.filename.com/wbt/pages/primer.htm
- *Web Quality Page (Walt Howe)* http://www.delphi.com/navnet/quality.html
- *World Lecture Hall* http://www.utexas.edu/world/lecture/

Discussion lists
- *NetTrain*   send e-mail to: listserv@ubvm.ca.buffalo.edu with the message: "subscribe nettrain yourname"
- *Web4LIB*   send e-mail to: listserv@sunsite.berkeley.edu with the message "subscribe Web4Lib yourname"

Learning Communities

- Students in upper-level classes create websites relevant to lower-level classes.
- Graduate students prepare multimedia materials for WebCT and teach courses.
- Collaboratory established at the SCC
- Building on collaboration: Arachne ejournal

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tage of WebCT's built-in password protection, which ensures that access to Learning Links is limited to students taking the class. Second, in the primary phase of the project, Learning Links is considered a one-year experiment, thus the use of copyrighted materials is considered spontaneous and fair use.

However, it will be necessary to seek permissions from copyright holders for any materials made available on the WebCT Web sites for more than a year.

Our Spanish, Portuguese and Latin American librarian has also been instrumental in helping to identify Web sites that offer images and other materials that are in the public domain and not subject to copyright.

As we enter the second half of the first semester of the Learning Links project, we are excited about the collaboration we've developed with the Spanish and Portuguese Department and eager to demonstrate how information literacy and library instruction can be integrated throughout the curriculum in the digital environment.

In the future, the libraries hope to collaborate with other libraries within the United States and the Spanish-speaking world to expand resources and distance learning opportunities for students.

Interviews with authors, lectures, and art exhibits provided by Latin American academic libraries could be digitized and incorporated into the Learning Links course materials.

We are also hopeful that our collaboration can serve as a model for course-

2.2 ACRL enhances the visibility, credibility, and favorable resolution of issues affecting academic libraries at the federal, state, and local levels.

2.3 Skills of academic librarians are developed and librarians are seen as essential leaders in institutional change and improvement of learning and teaching practices.

2.4 ACRL facilitates increased collaboration between academic librarians and all sectors of higher education.

2.5 ACRL strengthens its partnerships with other information-related or higher education organizations.

3.0 ACRL is an inclusive organization serving academic librarians and other information professionals in related professions.

Goals

3.1 Participation within ACRL continues to include librarians from diverse populations.

3.2 ACRL will expand standards and guidelines to include statements on inclusiveness.

4.0 Academic and research librarians are continually engaged in learning for their professional development and growth.

Goals

4.1 Leadership skills among academic librarians are strengthened. "Every librarian a leader" is fully realized.

4.2 Academic librarians are effective and productive professionals who make significant contributions to their organizations, librarianship, and higher education.

4.3 Members are supported in the development of their scholarly research skills through training and nurturing and providing mechanisms for publishing.

4.4 Programs are developed at local, regional, state, and national levels using new formats and delivery.

5.0 ACRL is a national and international interactive leader in creating, expanding, and transferring the body of knowledge of academic librarianship.

Goals

5.1 ACRL firmly establishes its position as a leader in research.

5.2 The speed of dissemination of research and effective practices in academic librarianship is increased.

5.3 Research that involves all sectors of ACRL's organizational units is expanded and supported so it demonstrates the value of contributions the units make to the profession and higher education.

5.4 Collaborative research and development projects that may involve risk but whose results promise to make a positive difference to ACRL and its members are developed and supported.

6.0 ACRL is an effective and a dynamic organization that continually enhances its capacity to create its future and assess and improve its performance in carrying out its mission.

Goals

6.1 Data about member and nonmember needs and interests is collected and analyzed on a regular basis. Actions are taken to address and meet these needs and interests.

6.2 Relevant benchmarks to which ACRL aspires are established.

6.3 Assessment and evaluation of association programs and activities are expanded.

6.4 Organizational audits are conducted and the organizational structure is reviewed to determine if it lends optimal support for the strategic directions.

6.5 The strategic planning process for the association becomes an integral part of operations and member leader activity. ■

integrated library and information instruction and be applied to other disciplines at Rutgers.

Notes

1. Tess Tobin and Martin Kesselman, "Evaluation of Web-Based Library Instruction Programs," (prepared for the Workshop on Web-Based Instruction and sponsored by the IFLA User Education RT at King Moghut University, IFLA Annual Conference, Bangkok, Thailand, August 1999).

2. Mary Lee Bretz et al., "Learning Links: Reading, Writing, Information, the Web, and the World," (proposal to the University Vice President for Academic Affairs, Rutgers University, Spring 1999). ■