Embedding Library Reference Services in Online Courses

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SUMMARY. The University of Wyoming has a long tradition of providing library services to distance education students. As technology changed and enhanced the delivery mode of distance education courses, the library altered the ways in which it offered services to distance learners. The institution was an early adopter of Web courses, so offering library support in this new environment was a natural expansion of our services. This expansion supports the goals of the ACRL Guidelines for Distance Learning Library Services and the goals of the University. This article will describe the integration of library reference services into online courses. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2004 by The Haworth Press, Inc. All rights reserved.]

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INTRODUCTION

The popularity of distance education in recent years has resulted in a dramatic increase in the number of courses and degrees offered by universities and colleges and the number of students taking these courses (Hansen, 2001; U.S. Department of Education, 2002). Traditionally, these courses were taught in a variety of ways, such as correspondence, instructor at a remote site, audio conference, or through video (live interactive or prerecorded).

The advent of the Web lent itself well to a new method for course delivery: online courses. Prior to the emergence of Web courses, constraints of time, distance, and technology restricted the expansion of distance education. In contrast, online courses offer the opportunity for asynchronous instruction and learning, thereby globally expanding the boundaries of the university. Online courses have become quite popular because students appreciate the convenience that enables them to take a course at any time from any location (Tabs, 2003). This national trend of offering online courses and degrees is prospering at the University of Wyoming.

Librarians at the University of Wyoming realize that demand for online instruction is driven by the personal circumstances and preferences of our students. We believe that library services are integral to the academic success of these students. Furthermore, we believe providing instruction and reference services to all students regardless of location will assist them in developing information literacy skills that will enrich them for a lifetime. Consequently, we are continually extending and adopting new services to support academic endeavors. This article discusses recent efforts to serve the needs of online students.

HISTORY OF DISTANCE EDUCATION AT UNIVERSITY OF WYOMING

The University of Wyoming has a longstanding commitment to distance education, having offered extension courses to the citizens of Wyoming since 1891 (Johnson, 1987). It is the only four-year university in a state of 97,914 square miles and a population under 500,000. The University’s land grant mission has combined with factors such as the geographical dispersion of students, sparse population, and a harsh climate to advance the University’s commitment to distance education. The first formal extension courses offered by the University were short courses...
in agriculture conducted in various communities around the state and it was not long before demand for courses in other subject areas arose. Teacher training was a second prominent focus of early outreach education. Efforts to deliver education to Wyoming citizens coalesced in 1983, when the University established the Office of Teleconferencing and began using technology to deliver courses and degree programs in a number of disciplines. The name has changed several times since then and today it is known as the Outreach School; classes are referred to as outreach courses.

The University of Wyoming was an early adopter of Web courses with the introduction of Online UW in the spring of 1999. In just five years, course offerings have expanded from 10 courses with enrollment of 153, to 65 courses with enrollment of 1,466. Currently three bachelor’s degrees, three master’s degrees and two certificates can be completed through Online UW courses. The most impressive enrollment increases at the University of Wyoming have occurred in the online classes offered through the Outreach School, our distance education unit. While UW’s on-campus enrollments have long hovered around 10,000 students, outreach headcounts now contribute almost 3,000 additional students, a growing number of whom are enrolling in online courses. This trend is obvious in the percentage of total enrollments in online courses. In 1999, 10% of UW distance enrollment was in online courses. By fall 2003 the percentage had risen to 41%.

Although the distance education program originally functioned apart from campus programs, in recent years the two have merged. The Outreach School does not have a separate faculty to deliver degree programs. Rather, it depends upon university faculty to deliver instruction. Courses are cross-listed and faculty teaching distance courses are all affiliated with a campus department. This close integration with academic units is a real strength of the outreach effort. Our philosophy is best summarized by University President Philip Dubois’ statement, “we are one university with one student body.”

**LIBRARY OUTREACH SERVICES FOR DISTANCE LEARNERS**

The Libraries support the University’s outreach mission by providing library services to distance education students. This service practice is founded on two assumptions that have guided University of Wyoming library outreach services for twenty years.
Library priorities should be founded on institutional priorities, and
Distance learners and faculty are entitled to the same resources and services as the campus population.

This practice reflects the major premise of the ACRL Guidelines for Distance Learning, 2003 that “Access to adequate library services and resources is essential for the attainment of superior academic skills in post-secondary education, regardless of where students, faculty, and programs are located. Members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings.”

Current library services for distance students at the University of Wyoming include:

- Reference assistance via a nationwide toll-free telephone number, e-mail, and online chat,
- Document delivery and interlibrary loan for supplying material not owned by our library,
- Web access to library catalogs, databases, electronic books, journals, and reserves, and
- A librarian to oversee library outreach services.

The cost of services and resources is absorbed by the Libraries’ budget and is offered free of charge to distance learners.

The role of the outreach librarian has changed dramatically over the past 20 years. This specialized reference position has always been responsible for managing library services to distance learners and as such has been the primary contact and provider of reference service, mediated searching, document delivery, and instruction. Library outreach services and off-campus students were viewed as “different” at a time when access to resources and librarians was severely restricted by proximity to the campus library.

Advances in technology have directly affected the ways in which distance clientele are served. Technology has eliminated the need for mediated searches and increased the means, speed, and efficiency of document delivery. However, responsibilities for technical advice and system interface have been added to the job (Matson, 1997; Gandhi, 2004). The Web accessible digital library of today requires knowledge of proxy servers, copyright, and monitoring of library Web pages for content, organization, and navigation. Furthermore, the outreach librar-
ian has been proactive in initiatives that resulted in the addition of an online tutorial, e-reserves, and online chat reference service. The most recent change occurred in the summer of 2003 when we began routing e-mail and toll-free telephone requests to the central reference desk rather than directly to the outreach librarian. All reference librarians began serving distance learners. This decision was made for several reasons. First, the distinctions had blurred between on-campus and off-campus users of the library because anyone using the library from outside the campus network had to do so via the proxy server. Increasingly, our campus students and faculty were using the library remotely so all reference librarians needed to be proficient in serving everyone. Second, was the desire to expand the hours of reference service to evenings and weekends for remote users without adding additional staff. Finally, all reference librarians were assigned times for handling online chat and consequently had to be able to answer questions from remote users.

**COOPERATIVE RELATIONSHIPS WITH THE OUTREACH SCHOOL**

The extensive array of library services for UW distance learners is feasible because of a close working relationship between the Outreach School and the Libraries. Both units have a strong commitment to the principle that geography ought not make a difference for student learning. Consequently, there is a high degree of synergism in the relationship between the two units. Library services for distance students are integral to the mission and the academic plans of both units. The academic plan of Outreach Credit Programs states “the Division will initiate cooperative efforts to design and implement the enhancement of student-centered support services and efficient administrative systems. These initiatives will involve the academic departments, the Graduate School, [and] the Libraries” (2004). The Libraries academic plan mirrors this sentiment when it states “the Libraries have a strong commitment to providing remote users with equitable access to library services and resources regardless of location. UW students, faculty, and staff can access our online databases, books, and journals from anywhere using a proxy server to authenticate their UW affiliation” (2004).

Ongoing dialogue between librarians; Outreach School administrators, instructional designers, academic advisers; University faculty, information technology staff; and Wyoming community college librarians is
essential. The Libraries actively seek ways to engage each of these constituent groups in conversations, both formal and informal, about matters of mutual concern. These relationships have been developed over time and are a testament to the careful planning and vision of Library and Outreach School administrators during the 1980s. Librarians attempt to meet with Outreach School administration and academic designers once a semester to compare notes and make sure our services are visible and appropriate to their needs. Our Outreach librarian is proactive in contacting university faculty who are teaching outreach courses to make them aware of the scope of library services available to their students.

Communication with campus information technology staff is frequent and tends to deal with patron authentication, security, and firewall issues. We have a formal agreement with Casper College, a Wyoming community college, to provide library services to a large cohort group of UW outreach students taking classes and pursuing degrees under the auspices of the UW/CC Center. There are a number of other agreements between UW and Wyoming community colleges that require some level of attention in terms of library support. Since community college libraries host University of Wyoming outreach students in their libraries with regularity, they benefit from having current information about our resources and services, and we need current information about their needs.

**INTEGRATION OF LIBRARY SERVICES INTO ONLINE COURSES**

Offering library support in the online environment was a natural expansion of our services. Since the UW Libraries already had a robust structure of policies and services relating to distance students and their library needs, moving into a new arena was a logical progression. Prior to the introduction of Online UW in the spring of 1999, the Libraries sat in on initial discussions between the Outreach School and its partner eCollege.com to determine how to serve the library needs of the online population. Embedding the Library and its services into online courses has included two components. The first component involved making library resources accessible within the online courses. The second component involved integrating information literacy/bibliographic instruction into online courses.
Although embedding library reference services and resources into online courses was easily accomplished with links to the library from the Online UW course platform, links alone were insufficient. As is the case in most libraries, access to electronic resources is restricted and accomplished through a proxy server that authenticates and authorizes use of licensed resources. While proxy servers facilitate access to licensed resources, they are not transparent to students who must use them. Instructions for creating a username and password and using the proxy server were needed. In addition, questions about requesting materials, document delivery, assistance from a librarian, and cost of service had to be addressed.

In the past five years, we have refined the links and information based on student problems and confusion. Currently, the basic links are:

- Getting started: doing research from a distance
- UW Libraries–Search for books, articles, subject resources, and more
- Ask Us–Chat online, e-mail, or speak with a librarian
- Interlibrary loan form–Request materials be sent free of charge
- Reserves
- Style guides and writing resources
- TIP–Tutorial for Info Power

Each link opens a new window so students can move easily between their course and the library. “Getting started: doing research from a distance” describes as succinctly as possible obtaining a username and password, finding books, finding articles, accessing e-reserves, requesting materials, and getting help from a librarian.

Instruction has also evolved over time and been more challenging and time consuming than making resources accessible. Initially it was done one on one via e-mail exchanges or through telephone conversations. These options continue to be available but two other instructional methods that are more proactive are also used. First, the distance-learning librarian, in conjunction with reference librarians, was instrumental in developing TIP, an interactive Web tutorial that has been in use since fall 2001. TIP was designed as an introduction to information literacy skills and is currently used primarily by first-year undergraduates, although it is also used in some upper division and graduate courses. In approximately 45 minutes, TIP provides a foundation for thinking strategically about information and research. (For a thorough discussion of
**TIP** see Kearley, 2002 and Phillips, 2003.) Five modules teach students how to:

- Investigate a topic
- Search for information
- Locate information in the library
- Evaluate the quality of information
- Utilize the information in papers, speeches, or projects

While **TIP** provides a basis for our campus-wide information literacy initiative, it is not completed in isolation. Information literacy is a core component of our first-year University Studies Program. Courses for this program are rooted in an academic discipline. Faculty members incorporate information literacy into course objectives, teaching methods, assignments, and assessment criteria. Completing **TIP** and passing the quiz is only a piece of the campus initiative. Typically a face-to-face class with a subject librarian complements **TIP**. The librarian focuses on bridging the gap between the theoretical and the reality of the electronic and physical library environment. Teaching information literacy calls for a partnership between librarians and teaching faculty. At the University of Wyoming, the endorsement of information literacy as a skill needed for graduation has allowed librarians to partner with faculty in a meaningful way to realize this goal. The online Nursing program is a case in point.

**CASE STUDY:**

**NURSING INSTRUCTIONAL SUPPORT**

Nursing is a discipline that has recognized the need for information literacy. According to Shorten (2001, 86):

In the new millennium, healthcare environments will increasingly demand nurses to be flexible, innovative and “information literate” professionals, able to solve complex patient problems by utilizing the best available evidence.

A demand for safe and effective healthcare requires the necessary skills in order to incorporate research findings into practice.

The University of Wyoming Fay W. Whitney School of Nursing has whole-heartedly adopted this position and integrated it into its *mission and philosophy*. 
The faculty believe that professional nurses function in the roles of carer/helper/counselor; advocate; consumer of research. . . . Research links the science and practice of nursing. The role of consumer of research is demonstrated by participating in, valuing, and using research findings to improve practice and to modify care based on a changing and expanding body of knowledge. (2004)

Consequently, Nursing faculty members have worked closely with the outreach librarian to ensure that Nursing students learn how to use the library to conduct research. Nursing students are distributed throughout the United States and overseas so it is imperative that they have access to an academic library and the ability to use it.

The Nursing program has taken full advantage of the TIP tutorial and requires students in two different research courses to complete it. One course is required for the RN/BSN degree and the other for the Master’s in Nursing. While TIP provides a foundation for thinking strategically about information, it is supplemented in online Nursing courses with an assignment that focuses on the mechanics of using the digital library. Students in both courses obtain a username and password, find a book in the catalog, locate a research article in a health database and an online journal, and e-mail a full-text article. Graduate students have the additional tasks of using the advanced searching capabilities, creating a list of marked records, and using the linking feature from the article database to the catalog. This assignment is completed very early in the semester so that students are equipped to conduct the research required by the Nursing faculty.

We consider these efforts a strong beginning but believe more instruction for online Nursing students is warranted. We are in the initial stages of developing an additional tutorial for Nursing specific databases. In particular, we want Nursing students to be proficient in searching health databases and Web sites that are free and accessible to the public so that after they graduate and no longer have access to the university’s licensed databases they can continue to “incorporate research findings into practice.”

We also want to promote more communication between online Nursing students and librarians. All students are e-mailed a reminder about library outreach services two to three weeks into each semester. However, our online chat and evening and weekend reference hours are underused and need to be marketed. Another possibility is to include in the assignment the requirement to consult a librarian about research strategy.
CONCLUSION

Two factors influence future consideration of how to most appropriately provide library reference services to University of Wyoming distance learners. First, the profile of an “average” outreach student will continue to change. To be sure, there will remain a group of people for whom taking classes on the main campus is impossible. The challenge of keeping their learning environment personal and connected will remain with us. We will continue to dedicate a library faculty position to working directly with students and instructors who reside outside the main campus community who are truly distance learners.

At the same time, many campus students are beginning to perceive outreach classes, particularly online classes, as a desirable option. There is no longer a distinct demarcation between regular classes and outreach classes. The shift in enrollment growth to the online sector is indicative that on campus students are taking them in preference to courses relying on synchronous delivery. We anticipate that this group of students may find using the library online a better option than physically coming into the building, despite the fact they are able to do so. Our challenge will be to provide needed services to them in an effective and efficient manner. All librarians must possess strong knowledge and expertise in dealing with issues of remote access to the library, as this becomes the norm rather than the exception.

Second, expectations upon librarians to provide expertise and leadership in teaching and evaluating information literacy will continue to grow. We must seek ways to work in collaboration with faculty and make our expertise more generally available to the online community. The Outreach librarian will continue to seek ways to make faculty aware of the existence of the information literacy tutorial, and its use in meeting graduation requirements. Currently, Wyoming community college transfer students are allowed to fulfill the information literacy requirement of the University Studies Program by taking the tutorial and passing the quiz with a grade of 70% or higher. Information about the tutorial and the availability of a librarian to work with classes will be shared with Wyoming community college academic advisors to enable transfer students to meet this requirement. We will explore the feasibility of developing an online course that will be an option for students seeking to fulfill the University Studies requirement for information literacy.

All of this will require the Outreach librarian to devote more time to online students. If this is done on a student-by-student basis, instruction
will be extremely time consuming and labor intensive. Therefore, methods to instruct an entire online class will need to be developed. Two possibilities to be explored are e-mailing a series of library briefings to online students (with permission from the course instructor) and developing subject specific tutorials. In addition, we plan to work cooperatively with the Outreach School to include information about our chat reference service and evening reference hours in the orientation packets sent to every outreach student.

We will continue to adhere to the principle that we seek to meet varied needs by services appropriate to student circumstances. We realize that there can be no one-size-fits-all approach to meeting the reference and instructional needs of online students. Our challenge is to be flexible in response to the ever-changing face of distance education.

REFERENCES


