Recent technological advances and administrative planning have significantly improved the University of Nebraska-Lincoln's (UNL) ability to provide continuing education courses to students at a distance. The UNL Libraries deliver services in partnership with the Division of Continuing Studies and several departments on campus. This paper focuses on the libraries' role in providing database access, search instruction, reference assistance, and materials delivery to Teachers College students enrolled in master's and doctoral level programs taught via distance education. Current and future electronic resources for remote students are discussed. (Author/SWC)
LIBRARIES AS PARTNERS IN DISTANCE EDUCATION

BY

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Spring 1997
LIBRARIES AS PARTNERS IN DISTANCE EDUCATION

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ABSTRACT

Recent technological advances and administrative planning have significantly improved the University of Nebraska-Lincoln's ability to provide continuing education courses to students at a distance. The UNL Libraries deliver services in partnership with the Division of Continuing Studies and several departments on campus. This presentation will focus on the Libraries' role in providing database access, search instruction, reference assistance, and materials delivery to Teachers College students enrolled in master's and doctoral level programs taught via distance education.

Technological advances have greatly expanded opportunities for college and university faculty to teach and communicate with students regardless of their location. These changes challenge the very idea of what a "classroom" means. Faculty at the University of Nebraska-Lincoln are offering a growing number of
courses that blend students who are sitting in a classroom on campus with students who are "attending" in other locations. Via satellite, videotape, World Wide Web, and Lotus Notes, UNL faculty from a dozen disciplines are delivering classes to remote students. Electronic mail and electronic discussion groups also foster expanded interaction between remote students and faculty and among students beyond the usual boundaries of class meeting time.

While technologies have increased the options for faculty to deliver academic courses to remote students, similar technologies have also increased libraries' ability to provide the remote student with enhanced access to library research materials. Not only can an academic library offer a number of services to students who reside far from the academic institution, the library can also provide students with access to worldwide resources. Utilizing these technological advances to deliver a quality educational program to remote students is even better when there is an effective working partnership between the teaching faculty and the library.

The UNL's Teachers College Ph.D. program in Educational Administration/Curriculum and Instruction provides a model of a doctoral degree delivered almost entirely via distance education. The Libraries have been active partners with Teachers College in providing service to these remote learners.

In spring 1993, the Dean of Teachers College met with the Education Liaison Librarian and the Distance Education Coordinator to discuss service expectations. The doctoral program was scheduled to begin the following fall with a cohort of two dozen students. This would be a four-year program, consisting
of two courses delivered remotely per semester plus three summers in residence on the UNL campus. The academic year courses would be delivered via satellite television in conjunction with classes taught on the Lincoln campus. However, it was planned that UNL faculty would also travel to Scottsbluff to teach segments of courses from the remote classroom.

Courses would be delivered to sites in Scottsbluff, North Platte, Chadron, Grand Island, and Kearney. Specific technology varied depending on the site, and included one-way or two-way video via satellite, T1 lines, and an audio bridge. This plan required remote students to have access to electronic mail and a fax machine.

Interestingly, there had previously been a cohort of 11 students in Sidney and North Platte who had pursued a doctoral program starting in 1984. Of that group, six graduated with their Ed.D. The 1993 western cohort would begin its program with more coordinated administrative support and a richer selection of library resources.

The University of Nebraska-Lincoln Libraries had formalized its service policy to remote learners in 1990, to address growing demand among Nebraskans for delivery of distance education. The Libraries' policy was developed in partnership with the Division of Continuing Studies at UNL. Joint planning between those administrative units established a foundation of cooperative service designed to support students enrolled in remote graduate programs. This partnership also recognized the key role that the University Libraries play in delivering research support to students.
The Libraries’ 1990 policy document emphasized the need for technological support and outlined the basic areas of service to remote students: 1) electronic access, 2) search instruction and reference assistance, and 3) delivery of materials. A Distance Education Coordinator position was assigned to coordinate these library services and work on future planning.

Profile of Remote Doctoral Students

It was useful for us to first consider the profile of the western cohort of doctoral students. Cohort members were generally employed full time, often as teachers, and were taking courses to increase career potential. They were older than traditional on-campus students. They were generally unfamiliar with current library technology, and did not have much computer expertise. Many were e-mail novices. However, the western cohort members did tend to be highly focused and motivated.

Providing Electronic Access

As the program began in fall semester 1993, remote access to electronic resources meant access via the campus-wide information system to search the Libraries’ online public access catalog. Remote students had dial-in access, which meant long-distance telephone calls and access via the modem pool. The students could search the online catalog by author, title, subject, and keyword. The catalog contained approximately 70% of the University Libraries’ cataloged collections. Students also had access to UnCover. Produced by the Colorado Alliance of
Research Libraries, UnCover is an index to over 17,000 journals in a variety of subject areas.

Shortly after the remote doctoral program began, the Libraries networked their CD Rom workstations and made them searchable over the Internet. These workstations included ERIC, a major database for faculty and students in education. ERIC contains indexing and abstracting information on a broad range of journal articles and documents in education.

Providing Instruction and Assistance

The Education Liaison Librarian was responsible for search instruction and reference assistance. The Educational Administration teaching faculty requested formal searching instruction for students at the start of the fall semester. During the initial instruction session, the Liaison Librarian covered searching the online catalog and UnCover. The doctoral students’ familiarity with searching online catalogs ranged from novice to experienced.

The Liaison Librarian conducted at least one instruction session per semester during the first year. Instruction continued during the first summer of campus residency. With the western cohort on campus, the Liaison Librarian conducted extended formal instruction sessions, small group training sessions on how to search ERIC, and one-on-one reference assistance.

The remote students rapidly came to view the Liaison Librarian as a key resource person. During the first year, the doctoral students frequently contacted her for assistance in formulating search strategies, as well as for specific answers.
to reference queries. Typically, the distant students telephoned the librarian, but there was also some e-mail communication.

The Liaison Librarian also conducted mediated computer searches on Dialog, mailing the results to students. These were done on a fee basis, with costs ranging from $10 to $45. ERIC was the database most heavily requested by the doctoral students, followed by PsycLit and Dissertation Abstracts.

The remote Educational Administration students relied on the Liaison Librarian for subject-related reference assistance. General reference assistance was available through other venues as well. The Libraries' electronic reference service, Infomail, was established to answer quick reference questions. In addition, the Distance Education Coordinator offered brief instruction -- a 10-minute overview of the online public access catalog menu -- as part of an annual orientation for distant students sponsored by the Division of Continuing Studies. The DE Coordinator also conducted similar overviews for classes at the request of the Educational Administration faculty.

Delivery of Materials

Delivery of materials was handled through the Interlibrary Loan office. The Distance Education Coordinator was responsible for developing a plan to deliver materials to the remote students. In fall 1993, the remote student could request books, photocopies of journal articles, and chapters from books, using a standard interlibrary loan form and sending it to the Libraries by mail or fax.
Photocopied materials were sent directly to the distant student through federal mail. Fax delivery was an option for selected journal articles. Books and other returnable materials were mailed via library postal rates to the downlink site where the televised class is held.

The University Libraries absorbed the costs of faxing and photocopying materials supplied to the remote students. That cost has totaled less than $200 annually. The Libraries covered postage for outgoing returnable materials, while the distant student or downlink site paid for return postage costs.

Specifically for the education doctoral students who needed access to ERIC documents or microfiche, the Libraries offered a copying service (fiche to paper reproduction up to 20 exposures, or fiche to fiche). Requests for ERIC fiche were placed using a copying request form. This service was established on a fee recovery basis.

The majority of distance education requests have been supplied from the collections at the UNL Libraries. The remote student typically receives the materials within a week, sometimes two weeks, from the date of request.

Remote students could also request materials that the UNL Libraries didn’t own. Turnaround time for such requests has been significantly longer, and the Libraries have generally passed along any costs associated with this service to the remote student.

As the Libraries’ resource person for distant students, the Distance Education Coordinator has coordinated the various library services. The Coordinator has routinely distributed print copies of library handouts to remote
students and teaching faculty. Print resources are vital communication links that describe the variety of electronic resources, as well as procedures for obtaining materials and instructions in dialing in.

Also, from the start the Coordinator has worked with local libraries on behalf of remote students. She consulted with library staff at Western Nebraska Community College in Scottsbluff so that the doctoral students could search ERIC on CD ROM, without negative impact on staff or other library users. She also worked with Mid-Plains Community College in North Platte to identify periodicals of interest to the doctoral students.

In fall 1993, as the western cohort began its doctoral program, library services for this group were adequate but not extensive. That would soon change. The most visible advance has been the addition of electronic databases including full-text databases that students are now able to access remotely. Mounting the Expanded Academic Index database was in the planning stage in 1993. The Libraries were moving toward more direct end-user searching. Internet connections were implemented, offering users across campus and then remote users the ability to search an increasing number of databases online.

Of the 1993 cohort, three students received their degrees in May 1997. Several are nearing completion on their dissertations, while others have recently completed their comprehensive exams. All western cohort applicants have completed their course work.

The northeast cohort, which began in the fall of 1995, has completed two years of course work, and will be in residence on the UNL campus this summer.
All members are staying on schedule and making good progress. The northeast cohort members attend classes at the University of Nebraska at Kearney, Grand Island College Park, Central Community College in Columbus, and Northeast Community College in Norfolk. Another cohort will be starting up in the fall of 1997.

Current Electronic Services for Remote Students

Today the variety of Internet resources offered to remote users is robust. The UNL Libraries offer access to electronic journal indexes, electronic encyclopedias, e-journals and books, and an Internet Resource Collection. We have a large number of general and scholarly journal indexes electronically available in a variety of subject areas. Some of these indexes include the full text of articles. With the advent of full-text, remote users have the ability to print off the entire contents of many articles right from their own workstations. Expanded Academic Index, for example, contains about 40% of articles full text.

Through our Specialized Databases Network section of the electronic menu, the Libraries provide access to scholarly book and journal databases including Dissertation Abstracts International, Sociofile, ERIC, Medline, Agricola, Psyclit, Biological Abstracts, Econolit, Ethnic Newswatch, and Statistical Masterfile. The Libraries also provide our researchers remote access to the broad variety of FirstSearch databases.

In addition to journal indexes, the UNL Libraries have been providing access to the electronic versions of both Encyclopedia Americana and
Encyclopedia Britannica on a trial basis this spring. In both cases, searchers use a World Wide Web interface to search these encyclopedias remotely.

Internet Resources Collection

Many scholarly journals are now being published only in electronic format. Librarians at UNL are currently working to select electronic journals we feel should be added to our collection, and are providing electronic connections to these offerings. As more and more users now have access to the World Wide Web, the UNL Libraries recognize the importance of information on the Web as well as the challenges often encountered in locating it. In order to assist users, we are attempting to identify and collect web sites relevant for academic interests in a variety of areas. This is a form of collection development in an electronic format. At UNL, librarians browse the Web for sites they feel will be of interest to students, staff and faculty. Catalog librarians then organize the records by subject area and provide cataloging information and direct links to these sites via the Libraries Web page.

At the UNL Libraries, we are working hard to provide users with access to as many online resources as possible. This access benefits both local and distant users. However, due to the number of systems that are currently available and the frequency of changes and upgrades, it is often confusing for users to identify, locate and search the indexes or materials appropriate to their needs. This is especially true for the remote learner, who can become confused when databases and/or menu structures change.
The role of the Liaison Librarian has become increasingly important in keeping both the faculty and distant students current with the various systems we offer. These librarians can prepare print or electronic handouts to explain specific database features and provide search guidance -- or cheat sheets -- as short cuts to doing basic searches. Additionally, Liaison Librarians can offer either live or videotaped search instruction.

Both Education Liaison Librarian and the Distance Education Coordinator strive to inform teaching faculty and students of changes and updates in services in a number of ways -- by contacting administrative units such as Division of Continuing Studies or Teachers College, by informing individual faculty teaching the remote classes, and through print handouts and electronic distribution of information and announcements. With advance notice, the Liaison Librarian may also be able to collect a list of web sites and electronic databases specific to needs of a particular class and create handouts or other in-depth guides to searching specific resources.

As previously mentioned, the increase in electronic services is probably the most visible change in our service provision to remote students. However, a number of other services have also been evolving. One such change was streamlining remote access from a password system to an automatic computer log in using university affiliated computer accounts to access the IRIS via Internet connections. Implementation of electronic requesting of interlibrary loan materials became available in fall of 1994. Two remote doctoral students had lobbied for this service, and they subsequently became enthusiastic users of the electronic
requesting capability. Also, the ERIC fiche copying service was modified. The Libraries chose to absorb the costs of fiche copying. The individual fiche copying form was discarded; students could request microfiche copying through standard requesting procedures.

Not all materials that students need are, or will be in the foreseeable future, available electronically. And of course, many materials currently in print will not be transformed into machine-readable formats. So, despite the wealth of resources available on the World Wide Web and Internet, the distant student will continue to rely on obtaining hard-print (or paper copies of materials) from a library. Recently, the checkout period for books delivered from the UNL Libraries to remote students was extended to six weeks, to better accommodate mailing time.

Future Library Services

The University Libraries have been rapidly increasing the number of databases, encyclopedias, electronic journals and other tools to which we can provide access. We are currently experimenting with different services as well as services in a variety of formats to see which seem most successful. We expect this will continue. Librarians and database vendors are working towards a more streamlined search structure, which will offer more seamless searching without compromising the power and capabilities designed into different systems. We also hope to offer more full text access to documents. Many of the issues here are copyright issues, which are now being debated nationally.
Decreasing the turnaround time for delivery of materials to the remote student is also a priority. Delivery time has decreased significantly, especially due to e-mail and fax for placing and filling requests. Specific distance education request forms, streamlining internal delivery routines, and altered staffing patterns for delivery services have also decreased waiting time for distance education students.

We are working to improve the menu structure of the Libraries’ home pages and web sites to make it as clear as possible where materials are located. Clear and concise electronic guides and instructions are vital to help students navigate through the system. Updating and evaluating web sites is an ongoing process, and some of our web pages are still very much under development. The UNL Libraries currently has a prototype WebPAC available. This is a version of our online catalog, with the addition of graphics and hypertext search links.

We are now experimenting with offering electronic reserve, which is a system by which faculty may put articles, sample tests, and other materials on reserve electronically, on the Libraries computer system. As we also look at the possibilities of digitizing text, we are keeping the distance education population well in mind, as we see them as a primary user of electronic text.

Conclusion

As librarians, we feel that collection and provision of information, regardless of format, is vital to our mission. With the current proliferation of electronic resources, we are facing new challenges in collecting, organizing and
providing access to an ever increasing variety of materials. These electronic capabilities not only allow us to provide upgraded services to our traditional “on-campus” users, but has allowed us for the first time to provide equitable access to remote students.

For these services to further develop and become truly successful, a number of important factors are necessary. Campus-wide, administration must recognize and budget for these services. Library administration must work collaboratively with other units on campus to build a backbone of understanding and support, and librarians must be involved in all phases of the planning process, to establish reasonable expectations. Further, librarians and teaching faculty must work together to plan for successful integration of library research into distance education courses. With proper planning, support, and cooperation, we feel that the technological classroom and the electronic library can advance together to create an ever richer and more powerful learning experience for our increasing number of distance education students.
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<th>Libraries as Partners in Distance Education</th>
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<tbody>
<tr>
<td>Author(s):</td>
<td>Kate Adams &amp; Carla Rosenquist-Buhler</td>
</tr>
<tr>
<td>Corporate Source:</td>
<td>Nebraska Library Association</td>
</tr>
<tr>
<td>Publication Date:</td>
<td>May 23, 1997</td>
</tr>
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<tr>
<td>Date:</td>
<td>July 9, 1997</td>
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</tbody>
</table>
I. DOCUMENT IDENTIFICATION:

Title: LIBRARIES AS PARTNERS IN DISTANCE EDUCATION

Author(s): Kate Adams

Corporate Source: Nebraska Library Association

Publication Date: May 23, 1997

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