

Integration of Information Resources into Distance Learning Programs

by

Sharon M. Edge and Denzil Edge

sharon.edge@louisville.edu

denzil.edge@louisville.edu

Abstract:

Increasingly, regional accrediting agencies are evaluating whether distance learners are being provided with equitable access to appropriate learning resources. Most postsecondary institutions allocate a significant portion of their budgets for library and information resources. Institutions need to enhance faculty awareness of electronic information resources and integrate information competency skills into web-based courses to increase the institution's return on investment in electronic library databases by enhancing the campus research culture.

Introduction:

Few college or university teachers receive instruction in how to integrate information resources into distance learning course. Many administrators, in recognition of the need for enhancing faculty expertise for teaching in the online environment, are investing in substantive training and support for integration of technology into teaching and learning, in general, and, specifically, for faculty teaching in distance learning programs. This article discusses the role of the library in academic institutions in supporting distance learning programs as well as some of the barriers faced in integrating information resources into the curriculum. This article addresses some of the issues identified by learned societies toward online courses and programs. This article also discusses the role of the library in academic institutions in supporting distance learning programs as well as some of the barriers faced in integrating information resources into the curriculum. In addition, a set of guiding principles and guidelines are provided for integrating information resources into distance learning programs.

Learning Outcomes Expectations:

The growth of distance learning is being accompanied by increased scrutiny not only from distance learning and academic scholars but also from accrediting agencies and professional associations. One of the goals of higher education in a democratic society has always been to promote critical thinking as a habit of mind so that one can develop skills necessary for civic engagement. The

currency of the new information economy has become knowledge that increases productivity - a commodity dependent upon the ability to find, evaluate, and use information.

Nearly every "virtual" university has established "principles of good practice" such as those developed by the Western Interstate Commission for Higher Education (WICHE, 2000). Various professional associations such as the American Association of Higher Education Assessment Forum have also established principles of good practice for assessing student learning (AAHE, 2000). In this information age, other professional groups are stressing the importance of students being able to think "algorithmically" by being fluent with information technology (Phillips, 1999). In addition to being "computer literate," students are now also expected to become "information literate" (Association of College and Research Libraries, 2000).

The Carnegie Classifications for Institutions of Higher Education (Lively, 1999) make a distinction between research universities and other degree-granting institutions. Institutions seeking to move from one level of institution to a higher one are usually faced with demonstrating the level of research occurring at the institution. Regional accrediting agencies also look for evidence that institutions have made adequate arrangements for ensuring that students have access to appropriate learning resources for research. Logan (1997) has proposed a series of distance learning questions that institutions facing accreditation by the Southern Association of Schools and Colleges (SACS, 1998) should address. Logan (personal communication, June 6, 2000) states, "Distance learning courses should include information about the learning resources available to students in the course, training on accessing the learning resources, and assurance the resources will be either available upon request or delivered in a reasonable period of time."

Higher education institutions providing teacher education programs in the U.S. are facing increased pressure from Congress, state lawmakers, and the public for accountability for the quality of the teachers they prepare (Basinger, 1999a). During October 1999, a report from the American Council on Education urged college presidents to make teacher education a top priority for their institutions or get out of the business (Basinger, 1999b). In May 2000, the National Council for Accreditation of Teacher Education released new performance-based standards for accreditation (NCATE, 2000). Subsequently, in June 2000, the International Society for Technology in Education (ISTE) released standards for preparing teachers to use technology in the classroom (ISTE, 2000).

The National Education Association (NEA), also in June 2000, released a poll of distance learning faculty (NEA, 2000). Most of the 400 distance learning instructors surveyed were positive about distance learning. The most significant survey finding was that "quality and access were central considerations that dictate how faculty feel about teaching and learning, regardless of whether the

forum is a traditional classroom or an online environment." Interestingly, more than half of the distance learning faculty in the NEA survey reported that preparing and delivering distance learning courses required significantly more time and effort than traditional classes. Yet, 84% did not get a corresponding reduction in workload, and 63% were compensated for the distance learning course as if it were part of their normal course load. Clearly, the faculty's enthusiasm for offering an education to students who could not otherwise enroll in a course and for providing their students with a vast array of resources that were previously unthinkable outweighed the absence of personal financial incentive, in the short term.

Challenges Faced in Development of Distance Learning Programs and Courses:

Perceptions of both the incentives and obstacles influencing faculty and administrators to teach via distance and the faculty education, assistance and support needed to deliver education using distance technologies are well-documented (Berge, 2000; Schauer, 1998; Weinstein, 1998). Articles (e.g. Grandgenett, Grandgenett, Tobb, Fluckiger, Ostler and Mortenson, 1997) books (e.g. Palloff and Pratt, 1999), and programs (e.g. AAHE Teaching Learning and Technology Group, 2000) promoting the integration of technology into teaching and learning are proliferating. Yet a major report released in October 1999 indicated that faculty were still apprehensive about technology (Campus Computing Project, 1999). Senior information technology officials who participated in the survey said that "assisting faculty effort to integrate technology remained the single most important information technology (IT) challenge confronting American colleges and universities over the next two to three years."

Institutions, particularly those seeking advancement to the next level of Carnegie research institution (Lively, 1999), strive to promote a culture of research-based education; however, even more barriers prevent the integration of electronic library and information resources into distance teaching. Most teaching faculty are already overwhelmed with the challenge of integrating new technologies into their teaching, usually without extra financial incentive. Few professors are already familiar themselves with the new techniques needed to find research material effectively in electronic library databases. Even faculty with a commitment to enhancing the ability of their students to find, evaluate and use information that is not freely available on the web find the practicality of doing so an insurmountable challenge in the face of other tasks associated with the use of technology in their teaching. It is understandable that few faculty are interested in taking the extra responsibility and time for familiarizing themselves with electronic library resources. It is also true, however, that when professional assistance with the integration of information resources in distance teaching is made available, many faculty are eager to take advantage of it and make a difference in the quality of distance learning life for their students.

Institutions pay dearly for electronic library databases that, when used effectively, can contribute significantly to a campus culture of research-based education. Yet rather than purposefully integrating information resources and competence into the curriculum, faculty often cede the responsibility for research to students. Just as some faculty challenged by technology have abdicated their responsibility for using it to student technical advisors, many faculty send their students to the library to figure out whatever they can for themselves about how to access research material. This "sink or swim" approach to the provision of learning resources, particularly in the distance learning environment, is not acceptable - either professionally or to accrediting agencies.

We know, intuitively, that most students usually settle for the most readily available though often unauthoritative resources on the web unless motivated by professor expectations to use respected research material. In spite of institutional emphasis on research, information seeking studies reveal that when research is required, the typical undergraduate student is likely to procrastinate because of "library anxiety" (Onwuegbuzie, 2000). It is recognized that instead of using library resources, many students opt for the most convenient information (usually on the web) in lieu of the most authoritative (usually from the library or online library databases). An extensive debate in a Chronicle of Higher Education Colloquy during Spring 2000 addressed the impact of web-based research on the quality of student papers and learning (Rothenberg, 1999). Some faculty members debating the issue lamented that students were not being trained to "put the details [all the information that is so easy to locate on the web] together to gain and produce knowledge - the skill that librarians refer to as "information literacy."

Many teaching faculty; however, seem unaware of what how to go about integration of electronic information resources into their courses. Weingart (2000) describes the use of a survey to achieve administrative and faculty awareness of a library's electronic information resources. Teaching faculty need to get over any embarrassment they may have about not knowing how to use the some of the more advanced features of the library's electronic databases and become learners of some of the newer electronic research skills themselves. Most librarians are well aware of the importance of information competency skills and eager to assist teaching faculty with instructional design to integrate information literacy into the curriculum. Rockman (2000) provides an example of a faculty workshop entitled, "Integrating Information Competence into the Disciplines," which reaffirmed the important teaching role of librarians on campus. Teaching faculty and librarians are forging some exciting professional liaisons and partnerships.

Emphasis on the return on investment from the institution's investment in electronic library databases to meet the institution's research agenda needs to come from the institution's senior administrators. Buchanan (2000) and Scvhwarzwalder (1999) have written about the value of special librarians as

knowledge management agents in corporations. Basefsky (2000) proposes that research libraries be used as "special libraries" for the university administration and illustrates how information training for administrators can empower them with the ability to use sophisticated information sources. The American Association of Higher Education's (AAHE) 53rd national conference sponsored a Provosts' Forum on Information Issues Facing Higher Education (Jenkins, 1998). One of the major areas of interest in the forum was how to increase partnerships between librarians and other faculty with emphasis on the importance of librarians serving on instructional teams for course development.

Role of the Library:

Presser attempts to define the role that libraries play in the academic research enterprise and provides a review of the relevant literature on the topic (Presser, 1999). In a paper prepared for the Association of Research Libraries, Smith (2000) proposes new roles and responsibilities for the university library in advancing student learning through outcomes assessment.

In conjunction with studying the role of the academic library in the information age, the Consortium for Educational Technology for University Systems (C.E.T.U.S.) produced a framework for quality in the delivery of information resources and library services for distance learners. (C.E.T.U.S., 1997). A section of the Association of College and Research Libraries changed its name from the Extended Campus Library Services Section to the Distance Learning Section and produced guidelines for service to distance learners (ACRL) that were approved by the American Library Association (ALA) Standards Committee in 1998. Other individuals have also addressed the role of libraries specifically in distance learning (Buchanan, 2000; Edge and Edge, 1998; Kirk and Bartelstein, 1999; Linden, 2000; Miller, 1997; and Unwin, 1998).

Barriers to Integration of Information Resources into the Curriculum:

Most individuals are familiar with the difference between the four primary types of libraries: public libraries (serving citizens of the community), school libraries (serving P-12 children and young adults), academic libraries (serving the higher/postsecondary education community) and special libraries (serving organizational and business clientele). On the other hand, the terms digital libraries, virtual libraries, and distance learning library services are not so easily understood. What's the difference? Many teaching faculty and administrators are confused about these concepts because they are often used interchangeably. Some are under the misconception that practically everything in the library is now available in electronic format. Even librarians may use the terms interchangeably, thereby adding to the confusion. This paper does not allow for a detailed analysis of the differences among digital libraries, virtual

libraries, and distance learning library services; however, a brief explanation follows.

Digital libraries are usually online extravaganzas of historical images, documents, audio recordings, photographs and film clips from the library's unique, often local history or regionally-oriented collections and may include online exhibits. The Library of Congress's American Memory Project is a premier example of a digital library project (Library of Congress, 2000).

Virtual libraries are generally aggregators and holders of subscriptions to electronic databases and serve as the portal to those databases for the libraries that are members of the virtual library consortium. Virtual libraries may also offer features and additional services. The Kentucky Commonwealth Virtual Library (Commonwealth of Kentucky, 2000), for example, serves as the aggregator and provider of databases for state-assisted libraries throughout Kentucky, including local public libraries - a function formerly managed by the Kentucky Department for Libraries and Archives (KDLA). Virtual libraries may also include digital libraries. The Kentuckiana Digital Library resides within the Kentucky Virtual Library. While KCVL does offer reference service and provide funding for a library-to-library ground courier service for interlibrary loan, it is not based in a physical library and does not deliver library material unavailable in electronic format from its databases directly to distance learners. Neither does KCVL offer electronic course reserve for professors teaching KCVL courses. It is important to keep in mind that "a collection of electronic databases does not a virtual library make." Neither does a virtual library serve as a substitute for well-planned distance learning library service.

Distance learning library service, done well, is a highly tailored, full-service information service that operates essentially as a special library and provides special librarian and knowledge management assistance for an institution's distance faculty and students. The Office of Distance Learning Library Services (DLLS) at the University of Louisville (University of Louisville DLLS, 2000) operates such a service. DLLS, since its inception, has provided professional assistance to U of L distance teaching faculty on integration of information resources and information competencies into the distance learning curriculum. DLLS also, for nearly a decade, has obtained material not available in electronic library databases licensed through U of L from elsewhere in the world and delivered it directly to the homes and computers U of L distance learners throughout the world.

Library support for distance learning was initiated at the University of Louisville during Fall 1992 as result of collaborative research proposals submitted simultaneously from the University Libraries and the Department of Special Education. Both of these projects have been previously documented and are available for review in the literature. (Edge & Edge, 1998; Edge, Mercer & Edge, 2000). The Department of Special Education at the University of Louisville has

been delivering award-winning Teacher Education programs¹ using distance learning technologies since 1993.

Extensive, continuing collaboration has occurred between the Department of Special Education's Teacher Education programs and the University Libraries at the University of Louisville. The administrator of U of L's Office of Distance Learning Library Services and the Director of the Special Education Distance Education Program have collaborated for nearly a decade to ensure that information resources are integrated into distance learning in a way that promotes independent research and development of information usage skills. The challenges have been many - and different for each course and for each professor in this distance education program.

In addition to serving the Special Education Distance Education Program's information resource needs, DLLS now also serves students in twenty other programs offered throughout the U.S. and in Canada and in six locations abroad (Athens, Cairo, Hong Kong, Panama, Singapore, and San Salvador). A list of the programs served by DLLS, indicating the academic disciplines involved, is available on the DLLS web page under the Get Started link.²

Office of Distance Learning Library Services personnel also collaborate with the Provost's office, distance education program coordinators, distance education committees and instructional faculty at the University of Louisville to formalize distance education policies and include provision for library services in distance education planning. The professor and librarian collaborate in the selection of the most appropriate electronic library resources for the academic discipline with emphasis on electronic access to the full text of material online when possible. One full semester of advance notice is required for planning library support for a new course offered via distance education.

The Office of Distance Learning Library Services (DLLS) has discovered that even when faculty are willing to admit lack of familiarity with electronic information resources, they rarely have time for the typical type of "information literacy" instruction offered by librarians to students. Distance teaching faculty need targeted, outcome-based activities that result in usable content for incorporation in their courses. Faculty have multiple intelligences, too; they need to learn information skills in different ways using some of the same learner-centered approaches they are attempting to use with their own students. But, above all, distance faculty need practical assistance that librarians can provide with electronic research skills and course development. Librarians can show faculty, on a one-one basis the most efficient, effective ways of locating

¹ The U of L Department of Special Education programs received United States Distance Learning (USDLA) awards in the Best Distance Learning Program in Higher Education category in 1994, 1996 and 1997.

² Note: The "Resources" section of the DLLS web site is restricted in accordance with electronic library database licenses.

electronic authoritative research material for review and study by their students. Distance learning and information literacy personnel can assist faculty in designing distance learning modules that promote independent student location, evaluation and use of information to gain knowledge - and contribute knowledge to fellow students (and even to the professor). Librarians can assist professors in ensuring copyright compliance and with processing of research material for electronic course reserve. Librarians can assist with arrangements for remote access to library databases and trouble-shoot problems with students and faculty who experience difficulties using that access. Librarians can explain to distance learners and faculty the usage of Adobe Acrobat required for accessing the full-text of documents in some research databases. Librarians can (and do) hold electronic office hours and participate in chat sessions in distance learning classes. Librarians, via telephone trouble-shooting and personal research assistance, can offer the crucial human element in online scholarship (Raish, 2000).

Just as faculty need to be aware of the differences among digital libraries, virtual libraries, and distance learning library services, they also need to be aware of differences among "distance learning" services provided by libraries. Distance faculty need to be wary of "distance learning" links on library web pages that do not connect with a focused library support for distance learning effort. Look behind the link. In an effort to jump on the "distance learning" bandwagon, many libraries have taken one of two approaches rather than establishing a dedicated distance learning library services operation. Some libraries with a previously established off-campus operation for extended and continuing education have simply renamed the service "distance learning." Such renamed entities should be examined to determine whether they provide essential distance learning library services such as electronic course reserve or collaboration on the integration of information resources and information literacy skills into the curriculum. Other libraries have implemented a distributed approach for library services for distance learning in which requests from distance learners and faculty are "farmed out" to the more traditional units of an academic library (reference, circulation, interlibrary loan, etc.). Personnel in these traditional library units are rarely in a position to give requests from distance learners the priority attention and rapid turn around time that is essential when distance is a factor.

Without a separately funded operation for provision of library services to distance learners, concerns about whether distance learners are being supported at the expense of on-campus students may arise. On-campus students may experience frustrations similar to those the customer in a store experiences when the clerk attends to a caller on the phone while the person physically present waits. When on-campus students and faculty are frustrated by slow interlibrary loan turnaround time, distance learning library service may become a scapegoat when handled through the regular interlibrary loan department rather than through a dedicated, separately funded distance learning library services operation.

It takes money to provide a dedicated, separately funded distance learning library services operation. Since its inception in 1992, distance learning library services at the University of Louisville have been separately funded in a collaborative effort between the academic units providing the distance learning programs and the University Libraries. One of the guiding principles has been that distance learners should not be "taxed" for learning. Specifically, those students who want to learn the most should not have to pay more for access to research material. Distance learners at the University of Louisville have never been assessed a standard charge for access to library resources and services. Even material unavailable online from library databases licensed by the University Libraries or from the library's physical collections are obtained from other sources and delivered at no charge to the distance learner unless the cost per item exceeds \$20. The library subsidizes the cost up to a maximum of \$20 per item with no limit on the number of items per student. Most items can be supplied for under \$20 (for the actual cost of the item only, not including labor and infrastructure); the student is given the option of obtaining material that costs over \$20 by agreeing before the material is obtained to pay any cost above \$20.

A modest fee of \$30 per student per course has been billed by the University Libraries at the end of each semester to the U of L academic units offering distance education programs - programs that according to SACS accreditation guidelines, require learning resources "either available upon request or delivered in a reasonable period of time." This \$30 cost per student per course figure includes library services needed for distance education above and beyond those provided for students on campus. The \$30 is based on:

- retrieving, copying and faxing or emailing requested items directly to students elsewhere
- providing special telephone assistance to distance learners
- setting up special accounts for electronic information retrieval
- processing of electronic information resources for integration into distance learning courses

Initially, from 1993 through 1997, library services for distance learning were provided on an independent research basis in collaboration with the Department of Special Education. In support of distance learning efforts at the University of Louisville, the University Librarian established the Office of Distance Learning Library Services in 1998 at an annual reallocation cost of approximately \$125,000. The \$30 per student per course contributed by the academic units delivering the distance education programs does not begin to cover the total cost of maintaining dedicated, focused distance learning library services at no additional cost to distance students. The University Libraries still shoulders the bulk of the financial obligation for distance learning library services and is continually reassessing the costs involved. For example, it has been discovered that providing service to students in distance learning Ph.D. programs is more labor intensive because of the more extensive research expected. Library

service for distance education programs outside of the United States entails additional work and tends to be more costly. The University of Louisville's costs for distance learning library services under continual analysis. The University Libraries are still hopeful that a higher proportion of the funding for the cost of providing distance learning library services can be recovered from the academic units offering the distance education programs.

Guiding Principles for Integration of Information Resource in Distance Learning:

As new distance education programs were developed at the University of Louisville, new issues regarding the provision of library service to meet the unique needs of each additional program arose. Since Fall 1997, a policy statement regarding Library Support for Distance Education Programs has been in place at U of L. A copy is available on the Office of Distance Learning Library Services web page (University of Louisville, DLLS, 2000).

In 1999, a Task Force on Distance Education was charged by the University Provost and Faculty Senate to study distance education issues at U of L. The administrator of U of L's Office of Distance Learning Library Services served on this task force. The report of the U of L Task Force on Distance Education points out that library services for distance learners entail technologies and activities not traditionally required for on-campus students (University of Louisville Report, 2000). The report emphasizes that there should be cooperation by distance education administrators and faculty with the University Libraries' Offices of Distance Learning Library Services (DLLS) and the University Libraries' Information Literacy Program to promote the integration of library resources and services and information skills into teaching and learning. (Attachment 9, p. 5). Six items in the report specifically address the expected collaboration of distance education program administrators and teaching faculty. Attachment 12 of the report consists of "Recommended Guiding Principles for Distance Education." Principle #10 describes expectations regarding library services for distance education programs at the University of Louisville.

Principle 10: Distance education also requires the integration of library services to support instruction.

- a. Participants in distance learning and international programs approved through the Office of the University Provost are entitled to library resources and services equivalent to those provided for students and faculty in the traditional U of L campus setting.
- b. Responsibility for provision of distance learning library services should be specifically assigned and separately funded so as not to compete

- with library resources and services available to on-campus faculty, staff and students.
- c. Advance planning and collaboration of teaching faculty with the University Libraries' Office of Distance Learning Library Services is required to ensure that appropriate library/learning resources are integrated into course instruction in distance learning and international programs and that copyright issues are addressed.
 - d. The ability to locate, evaluate, and use information are desired educational outcomes for all members of the University of Louisville community.
 - e. Distance learning and international programs faculty should become proficient in the technology skills required for use of distance learning library services before those services are made available to the distance learners in their courses.
 - f. Data on use of library resources and services for independent research in distance learning and international programs should be collected and made available for unit assessments and accreditation reviews.

A new center for teaching and learning was established at the University of Louisville in June 2000. The center is housed in the same wing of the library building where the Office of Distance Learning Library Services is located. This alliance should further enhance the ability of Office of Distance Learning Library Services personnel and Office of Information Literacy Personnel to incorporate research and information skills into instruction. The stage is set for maximizing the University's return on investment in expensive online library databases while simultaneously enhancing the campus research culture. Heterick (2000) states that "libraries will have to construct finding mechanisms in their portals that assist students in locating relevant and authoritative secondary material for their learning assignments." He sees "'smart' portals (something well beyond today's online catalogs) with new hierarchies of presentation that permit students to "drill down" an information hierarchy to only the depth required for the task at hand." Heterick adds, "to be most useful, the scholarly portal of the library needs tight coupling with the immersive learning materials of the student." Many of these features are already available in the teacher education courses in the Special Education Distance Education Program at the University of Louisville - features developed collaboratively with U of L's Office of Distance Learning Library Services.

Summary:

Distance Education has become a hot topic in higher education. A number of states, including Kentucky, have developed "virtual university" projects accompanied by "virtual library" initiatives. With emphasis on lifelong learning

and access to educational opportunities "anytime and anyplace," increasingly, the role of professors is changing. The shifting emphasis from teaching to learning also provides opportunities for libraries to flourish as fountains of independent learning opportunities.

Integrating information resources into the distance learning curriculum is a difficult task. Effective planning, quality training and collaboration and partnerships among faculty are essential in integrating resources into the curriculum. Programmatic and financial support are required for the development of focused, fully functional, distance learning library services within academic library systems. Feedback from students in programs that have had information resources integrated into their courses helped refine the mission of Distance Learning Library Services (DLLS) at the University of Louisville. The DLLS mission is to enhance the ability of students engaged in distance learning to use appropriate technologies for retrieving, on a self-service basis, information and library materials needed for independent study and research by providing library services that respond sensitively to students' locations, schedules and other life circumstances. This mission is intended to lead to higher levels of student performance through quality integration of information resources into the distance learning curriculum.

About the Authors:

Sharon M. Edge and Denzil Edge are Professors at the University of Louisville.

Sharon M. Edge administers the Office of Distance Learning Library Services (DLLS) at the University of Louisville and assists with planning for the document delivery components of the Kentucky Commonwealth Virtual Library (KCVL). Her focus is on insuring that all students engaged in distance learning have access to information resources and services equitable to those available for on-campus students and on the integration of information resources into web-based instruction.

Denzil Edge administers Distance Education Programs in Special Education at the University of Louisville and the Online Special Education Partnership (OSEP) for the Kentucky Commonwealth Virtual University (KCVU). His focus is on development of learning management systems that promote enhanced functionality for both the learner and the learning manager.

Denzil Edge and Sharon Edge are also co-authors of the eFormatics online distance learning instructional management system.

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Sharon and Denzil Edge is Professor in the Department of Teaching and Learning and Sharon Edge is Professor in University Libraries at the University of Louisville, Kentucky. Their email addresses are: sharon.edge@louisville.edu and denzil.edge@louisville.edu