

CUL Committee on Distributed Learning

An Interim Report

August 2000

Preface

The University Librarian appointed a committee, chaired by Gordon Law, director of the Catherwood Library, in February 2000. In its interim report dated August of this year, the committee sought to clarify some of the issues relating to distance learning and make recommendations for a CUL framework for providing information services and products. "Distributed learning" is a type of distance learning which relies heavily on technology, and increasingly web technology, to deliver an educational experience anytime and anywhere on the globe. For this reason, the committee renamed itself as the "CUL Committee on Distributed Learning".

After the report was completed, a meeting of LMT and Distributed Learning Committee members was held on 22 August 00 facilitated by Francis Pandolfi, who has broad experience in business and government, and who has been retained by the university to advise in development of the eCornell initiative. The outcomes of that session are presented as a separate document and should be read in conjunction with the committee's report. Vice Provost Mary Sansalone, who has coordinated development of the eCornell initiative, was also present for much of the meeting. The purpose of that session was to refine major points in the committee's report and focus on how to develop a plan for implementation. If resources are obtained through reallocation, or by attracting funding from elsewhere in the university (including eCornell) performance measures have to be developed and that was an important focus of the session. Specific performance measures make it easier to justify funding requirements of any program CUL provides in support of distributed learning. The results of this meeting can be found on the StaffWeb in the document entitled Pandolfi Meeting on Distributed Learning.

Table of Contents

[Executive Summary](#)

[Introduction](#)

[Committee Charge](#)

[Mission](#)

[Goals](#)

[Recommendations](#)

[Achieving Success in this new initiative](#)

[Copyright, licensing, and who is a Cornell student?](#)

[Services Provided in a distributed learning environment](#)

[A staffing, supplies and equipment model](#)

[Conclusion](#)

[Appendices](#)

EXECUTIVE SUMMARY

The university is actively engaged in expanding its distance learning offerings. Advances in information technology and telecommunications are changing the teaching and learning environment. This technology is being used to enhance the on-campus classroom experience at Cornell. This same technology broadens the market worldwide for some of the learning experiences offered by Cornell. A broader market implies information services provided to a larger audience.

The University Librarian charged the committee with developing a framework for distance learning, including system-wide implications for library service, and recommending policy development for the Library in this area. The committee developed a mission statement for this initiative: ". . . support the curriculum needs of faculty and students who participate in distributed learning." Five overarching goals were identified: (1) build awareness of library and information resources, (2) provide support for faculty in the use of library resources, (3) provide support for distributed learners in the use of the library, (4) develop new digital resources to support distributed learners and for the possible commercial distribution of those resources, and (5) facilitate the growth of digital library collections to support distributed learning. The committee recommends establishing an Office of Distributed Learning (ODL) within CUL charged with coordinating library related distributed learning efforts across the system.

Success in this program means that staff from ODL have to be key players in the design and implementation of distributed learning initiatives at the university level. Developing or leveraging relationships with faculty to ensure that a program of information services becomes integral to courses offered should be a high priority of all who work on this initiative. Services offered should be equivalent to those enjoyed by students on campus. Copyright and licensing issues are further complicated by who qualifies as a "student" as well as potentially differing viewpoints on that issue held by the university and database vendors. A draft model of staffing and overhead resources required is presented. A business plan should be developed, perhaps with this model as a point of departure. It is too early to determine whether a sufficient revenue stream can be generated by providing services to e-Cornell clients, the proceeds of which might be invested to strengthen CUL's overall program.

Members: Erla P. Heyns, Gordon Law (chair), Tim Lynch, Katie Margolis,

Don Schnedeker, Nancy Skipper

Introduction

Advances in information technology and telecommunications are changing the teaching and learning environment for professors, students, and librarians in two fundamental ways. The first relates to making the learning experience more effective. Electronically capturing or packaging the classroom or laboratory experience in asynchronous mode makes it possible for students to master the content of a course or presentation upon demand. With streaming video, the learner is able to recreate the presentation repeatedly until the content has been mastered. Presentation of content in synchronous mode enhances the classroom or laboratory experience by delivering content or broadening student participation to a degree which otherwise would be impractical.

The second change in the learning environment today broadens the potential market for services provided by higher education. Cornell's audience for instruction and service currently extends beyond the Ithaca campus to include off-campus and extension programs in many locations around the world. Adequate access to the Internet vastly increases the number of potential learners to include students at other universities, professionals wishing to upgrade their skill levels, and others outside traditional degree programs who seek to learn and explore for personal enrichment. Some within this expanded market may pay for access to such services and Cornell is moving to implement a for-profit corporation to manage those commercial relationships. Other segments of this emerging market may not be willing to pay but the university might choose to provide some services over the Internet without cost as part of its service mission.

Libraries have supported the traditional research, instruction, and service missions of universities by building collections and providing a range of information services for the user. If the nature of instruction as well as the market served is likely to change, libraries must develop a strategy to define

and provide appropriate support. This new landscape provides us with a unique opportunity to take a leadership role in creating the next generation library.

Committee Charge

The Distributed Learning Committee* was charged in February 2000 with providing the Cornell University Library with a framework for distributed learning and making policy recommendations to the University Librarian in this area. The committee set out to assess and evaluate the distributed learning activities of other libraries in the country and to review the distributed learning initiatives on the Cornell campus. Committee members

*The committee is using the term distributed learning instead of distance learning since we feel that distributed learning more closely describes learners outside of the traditional classroom, either in a remote location on the Cornell University campus or geographically dispersed around the world. "The principal characteristic of any form of distance learning is that the student does not have to be present in a classroom in order to participate in the instruction. Broadly defined, distance learning is any approach to education delivery that replaces the same-time, same-place face-to-face environment of a traditional classroom. Distributed learning is a type of distance learning that we define as technology-enabled, learning-team focused education, facilitated by a content expert, and delivered anytime and anywhere." Source of quoted definition: http://www.peopleware.be/newsletter/white_paper_learningspace.htm

interviewed librarians from various universities around the country [Appendix A, p. 11] and also met with many faculty members and administrators at Cornell [Appendix E.1 and E.2, pp. 24-27]. The committee then drafted a mission statement for a CUL distributed learning initiative as well as a set of recommendations for implementing the program.

Mission

The mission of the CUL distributed learning program is to support the curriculum needs of faculty and students who participate in distributed learning. Services offered should parallel the range of services, including access to collections, currently supported by CUL. We recognize that not all library services will be provided in exactly the same format to distributed learning users compared with on-campus users. However, we should strive to provide high quality services to all users. In addition libraries must be co-developers of distributed learning services and programs with Cornell University faculty and other support providers such as the Office of Information Technology and Media Services. Our expertise makes us uniquely qualified to serve as advisors to faculty on services and collections that will be most effective in distributed learning. The Library should work closely with faculty in developing course assignments and in providing access to collections to support distributed learning.

Goals

The goals of any library sponsored distributed learning initiative should be to:

- Build awareness of library and information resources
 - Provide support for faculty in the use of library resources for teaching and discovery
 - Provide support for distance learners in the use of the library for personal discovery and growth
 - Develop new digital resources to support distance learners and for the possible commercial distribution of those resources
 - Facilitate the growth of digital library collections to support distributed learning
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Recommendation I

Establish an Office of Distributed Learning within CUL based on the ACRL guidelines [Appendix C.1, p. 15] to support a program of distributed learning. This office will have responsibility for coordinating library related distributed learning efforts across the system. It should be staffed and supported to assist librarians across campus in developing collections and services for distributed learning. The office should coordinate library support for distributed learning across campus, reach out to faculty and distributed learners, identify distributed learning partners, both on and off campus, and promote the library's distributed learning services to both faculty and users. This office would provide advice, guidance, financial support, and staff to help plan and initiate new programs. The office would assist in grant writing to support distributed learning programs. It will also be able to market distributed learning services developed on campus and facilitate cross-campus collaboration on projects that have a distributed learning focus. Finally, this office will help define the library's relationship with distributed learning services supported by the Office of Information Technology, CIT and e-Cornell.

Recommendation II

In order to support this new library effort, we also recommend that the Distributed Learning Committee serve in an advisory capacity to CUL's Office of Distributed Learning. In this capacity the new Office of Distributed Learning will benefit from expertise on the Distributed Learning committee particularly in areas concerned with strategic direction of services and new programs. The committee would also help promote services of the office to the rest of CUL and the university at large.

Achieving success in this new initiative

In our view, achieving success with this new distributed learning initiative depends on the following:

Being a key player. Staff of CUL's Office of Distributed Learning should become part of the design and implementation mechanism for distributed learning at the university level as soon as possible to ensure CUL's integration into this new initiative. Although much planning has already been completed, that process will continue over time as the concept evolves and more people become involved.

Playing a consultant role. Librarians have a critical consulting role to play in helping create and manage digital collections generated by individual faculty, schools and colleges. This includes consulting on the creation of course content and course assignments and it extends to other digital collections that faculty create in support of their research and teaching.

Personal interaction. Personal interaction of library staff with distributed learning users and faculty is a high priority. This includes not only staff working directly in support of distributed learning but gradually, over time, others within CUL who have developed, or have opportunities to develop, the personal contacts with faculty and users so essential to success of this venture. We need to know what works, what makes sense, and much of that information comes via informal communication with those we seek to serve.

Equivalent service. The first precept in the 'Philosophy' section of the "ACRL Guidelines for Distance Learning Library Services" [Appendix C.1, p. 2] is as follows:

"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."

As indicated in our mission statement, the committee agrees fully with this view. Services for distributed learning students may differ due to requirements of their academic program, their physical location, access to local library resources or availability of computer resources. However, the Office of Distributed Learning should strive to develop a variety of innovative approaches and special procedures to meet the service needs of all DL students, to the greatest extent possible, regardless of their circumstances.

Copyright, licensing, and who is a Cornell student?

Services for distributed learning students may vary depending on the status of the student in regard to Cornell University. Some CUL database contracts and licenses link pricing to student enrollment. Offering services, including access to databases for remote users, may affect some of those contractual relationships. Copyright issues will affect electronic delivery of journal articles to users. Finding suitable solutions to these issues must be a high priority.

It may be necessary to delineate a system of "tiered" services to reflect the differences among those who are taking distributed learning classes for Cornell degree credit, professional certification, or simply for personal growth and discovery. The status of students taking distributed learning classes offered in conjunction with the state campus libraries, or through the various extension divisions at Cornell, further clouds this issue. However, we should strive to provide services appropriate for each group of students. One of the first tasks of this office will be to work with the university to define and clarify student status questions and to help ensure that distributed learning students receive appropriate forms of identification.

Services provided in a distributed learning environment

Appendix D [p. 23] contains an informal, selected list of services currently provided by the Library. Distributed learning potentially could intersect with, or draw upon, each one. It will be a responsibility of this new office to consider each of these service areas and determine if the ODL unit itself should take on specific functional areas or if existing units would offer their services in a cooperative fashion in conjunction with the ODL. It is highly likely that a combination of approaches will be necessary. Below are outlined some of the service issues with greatest immediate relevance to DL efforts.

ACCESS SERVICES is responsible for circulation, reserve and interlibrary services (document delivery). Patron access to most of these services is controlled by Cornell University ID number. Because every attempt should be made to provide collection resources in a digital format, Cornell identification and authentication will be an issue in most cases due to copyright restrictions. If digitization is not feasible, DL students may need access to print material by fax, or mailed photocopy. A "course pack" arrangement with the Campus Store is also a possibility. Interlibrary loan of physical volumes might be possible in conjunction with a local library or directly to the requestor if the DL student is fully registered as a Cornell student. Access services staff have valuable expertise in making digital and print material available to users and in addressing the complexities of Cornell University identification and patron status issues. To ensure that the ODL develops the most user-centered, yet cost effective services possible, the DL Committee recommends that a member be added to the Committee to represent Access Services.

REFERENCE SERVICES are already being developed in ways that can support the needs of distributed learning and that should be developed or coordinated by ODL. Telephone reference service is available in all library units and could be extended to distributed learners by the use of an 800 number or

by distributing calling cards which provide a higher level of security. Most library units already have strong reference e-mail programs in which a high percentage of queries are responded to within 24 hours. Many units provide in-depth research consultation services. Hotel and ILR have fee based services in place for non-Cornell users that could be used as models for DL clients who need extensive assistance. CUL staff are participating in a pilot project for 24 X 7 reference service and the creation of a shared reference FAQ database, both of which potentially could be tapped into as a resource for DL. CU Library staff are currently running an experimental synchronous chat reference service ("LiveHelp"). Skill guides, pathfinders, bibliographies ("webliographies") and interactive research tutorials are routinely being mounted on the web now. Reference staff also have expertise in integrating help into online systems such as the Gateway. To take full advantage of newly developing service methods and technologies, close contact with groups such as IRPC is highly recommended for ODL staff as they develop accessible, convenient, flexible services for DL students.

INSTRUCTION is a critical issue for DL. Two of the benchmarks of quality in internet-based distance learning developed by the National Education Association [Appendix C.2, p. 19] allude to bibliographic instruction:

9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, inter-library loans, government archives, new services, and other sources.

The "ACRL Guidelines," [p. 15 of this report] also articulate the importance of lifelong learning skills and information literacy instruction for distance learners (p.2). Providing course-based bibliographic instruction for DL students will be a challenge requiring creativity, innovation and experimentation with synchronous and asynchronous information technologies. To repeat, advocating the value of library instruction to DL faculty and service providers as well as developing DL instructional capabilities should be a high priority for the ODL.

COLLECTION DEVELOPMENT and ACQUISITIONS have made great strides in making digital resources available to the Cornell community. Subscriptions to collections of electronic journals have greatly increased and NetLibrary signals the beginning of proliferating collections of electronic books. The budget for electronic resources has increased and staff have become experienced in negotiating licensing issues and consortial arrangements. However, as noted above and also outlined in the 1998 "Cornell University Library Distance Learning White Paper" (p.2) there will be many contractual and financial issues to be dealt with by ODL. An influx of DL students presumably will increase costs based upon FTE pricing structures or simultaneous users. Database access cost recovery must be a consideration in designing financial models and revenue streams for ODL and close communication with acquisitions and collection development staff will be required.

DLIT & IT staff excel at creating digital collections and designing and supporting the infrastructure of

critical resources such as Voyager and the Library Gateway. In conjunction with access services and acquisitions, they manage user authentication and patron status issues. Implementation of the proxy server has provided a major step forward for remote user access to CUL databases. IT staff have created an excellent model of cooperation and consultation with reference staff in Gateway development and technical support for users. DLIT staff involved in projects such as "The Making of America" conferred on an informal basis with reference staff on index design, help text and help links. In so doing, CUL has been able to provide service to users as an integral part of our digital resource design. Reference expertise in designing user-centered web sites, integrating help information and links to asynchronous or synchronous ("live") reference assistance should routinely be integrated into the production of all digital collections.

A staffing, supplies, and equipment model

The committee constructed a staffing model, with associated overhead costs, in an attempt to estimate some of the resources required to launch this initiative [[Appendix G, pp. 30-31](#)]. The model suggests we need an investment of \$204,125 the first year, increasing to \$372,148 by conclusion of the third. Admittedly, these are very rough estimates at best until we have a better idea over time of the demand for services requested by faculty and DL students. Because different courses may generate varying demands for services, this further complicates the ability to forecast. It is very unclear how scalable this model is likely to be. For example, if DL offerings or enrollments doubled over time, would the staffing requirements increase proportionally? This model is offered as a point of departure for whomever undertakes to develop a business plan for this venture, and particularly if CUL proceeds to generate a revenue stream based upon charge backs for services provided.

Because distributed learning refers both to students already enrolled on campus as well as those coming to our attention via e-Cornell, it may be helpful to display costs in any business plan with this distinction in mind: what additional cost does distributed learning entail as a consequence of delivery to the traditional Cornell student *in addition to* this new category of student coming to us via distributed learning technology.

Because the staffing and overhead requirements have to be substantially refined, and that will, as we say, depend on analyzing longer term performance data, it is not clear now whether a sufficient revenue stream can be generated via service to e-Cornell to enhance existing CUL programs. Collaborative efforts with other college and university DL initiatives beyond Cornell offers yet another pricing dimension to consider.

Conclusion

Although the proposal to form a for-profit corporation, "e-Cornell", may have partly prompted formation of our committee, once constituted we came to realize that by focusing our efforts on distributed learning services to traditional students we would provide the framework for e-Cornell services also. Distributed learning enhances the educational experience of students regardless of their location.

Focusing on how to provide services in a distributed learning context provides us with several good opportunities as we look to the future. As we explore how to serve a new clientele, it prompts us to examine how effective we are with students and faculty and whether there are ways we could improve that service. Some argue that how students approach the learning process has been changing over time and that the Internet and evolution of the web interface are accelerating that process. If that is true, we may learn

much about how best to serve our traditional user by addressing how best to serve the remote user: they are both using the same technology to obtain information, learn and acquire new skills.

We recognized it was important to establish a separate unit within CUL in order to move the agenda forward, hire staff soon, and establish a point of contact. This seems to be the approach other large university library systems are taking in order to showcase what can be accomplished.

Appendix A:

Universities Contacted and Selected DL Library Web Sites

Harvard Business School

Johns Hopkins

New York University

Penn State

<http://www.libraries.psu.edu/crsweb/idechem/student serv4.htm>

Purdue University

Southern Illinois University

University of Florida

<http://web.uflib.ufl.edu/dltop.html>

University of Illinois

<http://www.outreach.uiuc.edu/aolibrary/>

University of Minnesota

<http://www.lib.umn.edu/dist/>

University of Virginia

Western Michigan University

<http://www.wmich.edu/library/distance-ed.html>

Appendix B: Selected Distributed Learning Web Sites

The American Center for the Study of Distance Education (ACSDE) Pennsylvania State University

<http://www.ed.psu.edu/acsde/>

American Library Association & Association of College and Research Libraries Distance Learning Section

<http://caspian.switchinc.org/~distlearn/>

CETUS (Consortium for Educational Technology for University Systems): SUNY (the State University System of New York), the California State University System, and CUNY (the City University of New York)

<http://www.cetus.org/>

Copyright Issues Related to Distance Learning and Multimedia Development

<http://www.lib.siu.edu/regional/copyright.html>

Cornell University Office of Distance Learning

<http://www.dl.cornell.edu/>

Cornell University School of Continuing Education and Summer Sessions

<http://www.sce.cornell.edu/DL/>

The Journal of Library Services for Distance Education

<http://www.westga.edu/library/jlsde/>

Appendix C: Distributed Learning Guidelines & Reports

GUIDELINES:

ACRL. "ACRL Guidelines for Extended Academic Library Services: The Final Version, Approved July 1998" College & Research Libraries News v. 59 no9 (Oct. '98) p. 689-94. [Print-out of web version in Appendix C.1]

National Education Association news release: NEA AND BLACKBOARD INC. STUDY FINDS 24 MEASURES OF QUALITY IN INTERNET-BASED DISTANCE LEARNING "**Quality On The**

Line" study released at Blackboard Summit.

<http://www.ihep.com/PR17.html> [Print-out of web text in Appendix C.2]

REPORTS:

Consortium for Educational Technology for University Systems (CETUS). "**Information Resources and Library Services for Distance Learners: A Framework for Quality**" 1997.

http://www.cetus.org/dist_lrn.pdf

Cornell University College of Agriculture and Life Sciences. "**Distance Learning Report: A Visionary Document**" Prepared by The CALS Distance Learning Committee, July 1997

Cornell University Library. "**Distance Learning White Paper**" Prepared for Sarah Thomas, Carl A. Kroch Librarian: Final Revision, April 21, 1998.

<http://www.library.cornell.edu/staffweb/Distance.html>

Cornell University Library Distance Learning Task Force. "**Cornell University Library Distance Learning Final Report**" January 26, 2000.

Cornell University Office of Distance Learning. "**Report to the Provost: Distance Learning at Cornell University**" May 28, 1998.

<http://www.dl.cornell.edu/odl98/dl.provost/recommendations.stm>

Jones, William G. and Lippincott, Joan K. "**Transforming Libraries: Issues and Innovations in Distance Learning.**" Washington, DC: Association of Research Libraries, Office of Leadership and Management Services, 1998. SPEC kit 234; Transforming Libraries 6. [Olin Library Z678 .S74 +]

Snyder, Carolyn A., Logue, Susan. and Preece, Barbara G. "**Role of Libraries in Distance Education : a SPEC Kit.**" Washington, DC: Association of Research Libraries, Office of Management Services, 1996.

SPEC kit 216. [Olin Library Z678 .S74 +]

Appendix C.1

Association of College and Research Libraries. "ACRL Guidelines for Extended Academic Library Services: The Final Version, Approved July 1998," College & Research Libraries News v. 59 no9 (Oct. '98) p. 689-94.

The following are excerpted from the ACRL guidelines, full text of which is available at

<http://caspian.switchinc.org/~distlearn/guidelines/>

Library resources and services in institutions of higher education must meet the needs of all their faculty, students, and academic support staff, wherever these individuals are located, whether on a main campus, off campus, in distance education or extended campus programs, or in the absence of a campus at all; in courses taken for credit or non-credit; in continuing education programs; in courses attended in person or by means of electronic transmission; or any other means of distance education. The "Guidelines" delineate the elements necessary to achieving these ends. The "Guidelines" are intended to serve as a gateway to adherence to the ACRL Standards in the appropriate areas.

Definitions

Distance learning library services refers to those library services in support of college, university, or other post-secondary courses and programs offered away from a main campus, or in the absence of a traditional campus, and regardless of where credit is given. These courses may be taught in traditional or non-traditional formats or media, may or may not require physical facilities, and may or may not involve live interaction of teachers and students. The phrase is inclusive of courses in all post-secondary programs designated as: extension, extended, off-campus, extended campus, distance, distributed, open, flexible, franchising, virtual, synchronous, or asynchronous.

Distance learning community covers all those individuals and agencies, or institutions, directly involved with academic programs or extension services offered away from a traditional academic campus, or in the absence of a traditional academic campus, including students, faculty, researchers, administrators, sponsors, and staff, or any of these whose academic work otherwise takes them away from on-campus library services.

Originating institution refers to the entity, singular or collective, its/their chief administrative officers and governance organizations responsible for the offering or marketing and supporting of distance learning courses and programs: the credit-granting body. Each institution in a multi-institutional cluster is responsible for meeting the library needs of its own students, faculty, and staff at the collective site.

Library denotes the library operation directly associated with the originating institution.

Librarian-administrator designates a librarian, holding a master's degree from an ALA-accredited library school, who specializes in distance learning library services, and who is directly responsible for the administration and supervision of those services.

Philosophy

The "Guidelines" assume the following precepts:

- 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.
- The instilling of lifelong learning skills through information literacy instruction in academic libraries is a primary outcome of higher education. Such preparation is of equal necessity for the distance learning community as it is for those on the traditional campus.
- Traditional on-campus library services themselves cannot be stretched to meet the library needs of distance learning students and faculty who face distinct and different challenges involving library access and information delivery. Special funding arrangements, proactive planning, and promotion are necessary to deliver equivalent library services and to maintain quality in distance learning programs. Because students and faculty in distance learning programs frequently do not have direct access to a full range of library services and materials, equitable distance learning library services are more personalized than might be expected on campus.
- The originating institution is responsible, through its chief administrative officers and governance organizations, for funding and appropriately meeting the information needs of its distance learning programs in support of their teaching, learning, and research. This support should provide ready and equivalent library service and learning resources to all its students, regardless of location. This support should be funded separately rather than drawn from the regular funding of the library. In growing and developing institutions, funding should expand as programs and enrollments grow.
- The originating institution recognizes the need for service, management, and technical linkages

between the library and other complementary resource bases such as computing facilities, instructional media, and telecommunication centers.

- The originating institution is responsible for assuring that its distance learning library programs meet or exceed national and regional accreditation standards and professional association standards and guidelines.
- The originating institution is responsible for involving the library administration and other personnel in the detailed analysis of planning, developing, and adding or changing of the distance learning program from the earliest stages onward.
- The library has primary responsibility for identifying, developing, coordinating, and providing resources and services, which meet both the standard and the unique information needs of the distance learning community. The librarian-administrator, either centrally located or at an appropriate site, should be responsible for ensuring that all requirements are met.
- Effective and appropriate services for distance learning communities may differ from, but must be equivalent to, those services offered on a traditional campus. The requirements of academic programs should guide the library's responses to defined needs. Innovative approaches to the design of special procedures or systems to meet these needs is encouraged.
- When resources and services of unaffiliated local libraries are to be used to support information needs of the distance learning community, the originating institution is responsible, through the library, for the development and periodic review of formal, documented, written agreements with those local libraries. Such resources and services are not to be used simply as substitutes for supplying adequate materials and services by the originating institution.
- The distance learning library program shall have goals and objectives that support the provision of resources and services consistent with the broader institutional mission.

Services

The library services offered to the distance learning community should be designed to meet effectively a wide range of informational, bibliographic, and user needs. The exact combination of central and site staffing for distance learning library services will differ from institution to institution. The following, though not necessarily exhaustive, are essential:

1. reference assistance;
2. computer-based bibliographic and informational services;
3. reliable, rapid, secure access to institutional and other networks including the Internet;

4. consultation services;
 5. a program of library user instruction designed to instill independent and effective information literacy skills while specifically meeting the learner-support needs of the distance learning community;
 6. assistance with nonprint media and equipment;
 7. reciprocal or contractual borrowing, or interlibrary loan services using broadest application of fair use of copyrighted materials;
 8. prompt document delivery such as a courier system and/or electronic transmission;
 9. access to reserve materials in accordance with copyright fair use policies;
 10. adequate service hours for optimum access by users; and
 11. promotion of library services to the distance learning community, including documented and update policies, regulations and procedures for systematic development, and management of information resources.
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Appendix C.2

National Education Association news release: NEA AND BLACKBOARD INC. STUDY FINDS 24 MEASURES OF QUALITY IN INTERNET-BASED DISTANCE LEARNING "**Quality On The Line**" study released at Blackboard Summit.

NEWS RELEASE (<http://www.ihep.com/PR17.html>)

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NEA AND BLACKBOARD INC. STUDY FINDS 24 MEASURES OF QUALITY IN INTERNET-BASED DISTANCE LEARNING

"Quality On The Line" study released at Blackboard Summit

WASHINGTON, D.C., March 21, 2000 – The National Education Association (NEA) and Blackboard Inc. today unveiled an important, research-driven list of quality benchmarks for distance learning in higher education. The list of 24 quality measures is the centerpiece of "Quality On the Line" -- an Institute for Higher Education Policy study commissioned by NEA and Blackboard Inc.

With the growth worldwide of teaching and learning on the Internet, attention is being paid to the nature and quality of online higher education. Speaking before an international forum of higher education policymakers convened for the Blackboard

Summit 2000, NEA President Bob Chase and Blackboard Inc. Chairman Matthew Pittinsky previewed the findings of the study and declared the 24 benchmarks essential to ensuring excellence in Internet-based learning.

"The distance from faculty to student must be measured in results achieved for our students," said Chase. "The benchmarks identified in this study are important guideposts as our nation navigates the future of online higher education."

Pittinsky said, "The quality of the education we provide for students is the driving force behind the way teaching and learning takes place. The benchmarks identified in the NEA-Blackboard study will be invaluable to colleges and universities around the

world for years to come as they keep their focus on quality while working to create and improve their Internet-based teaching and learning environments."

To formulate the benchmarks, the report identified first-hand, practical strategies being used by U.S. colleges considered to be leaders in online distance education. The benchmarks distilled from this study are divided into seven categories of quality

measures currently in use on campuses around the nation. Many are common sense, but the study validates their importance.

The categories and benchmarks include:

Institutional Support Benchmarks

1. A documented technology plan that includes electronic security measures to ensure both quality standards and the integrity and validity of information.
2. The reliability of the technology delivery system is as failsafe as possible.
3. A centralized system provides support for building and maintaining the distance education infrastructure.

Course Development Benchmarks

4. Guidelines regarding minimum standards are used for course development, design, and delivery, while learning outcomes -not the availability of existing technology - determine the technology being used to deliver course content.
5. Instructional materials are reviewed periodically to ensure they meet program standards.
6. Courses are designed to require students to engage themselves in analysis, synthesis, and evaluation as part of their course and program requirements.

Teaching/Learning Benchmarks

7. Student interaction with faculty and other students is an essential characteristic and is facilitated through a variety of ways, including voice-mail and/or e-mail.
8. Feedback to student assignments and questions is constructive and provided in a timely manner.
9. Students are instructed in the proper methods of effective research, including assessment of the validity of resources.

Course Structure Benchmarks

10. Before starting an online program, students are advised about the program to determine if they possess the self-motivation and commitment to learn at a distance and if they have access to the minimal technology required by the course design.
11. Students are provided with supplemental course information that outlines course objectives, concepts, and ideas, and learning outcomes for each course are summarized in a clearly written, straightforward statement.

12. Students have access to sufficient library resources that may include a "virtual library" accessible through the World Wide Web.

13. Faculty and students agree upon expectations regarding times for student assignment completion and faculty response.

Student Support Benchmarks

14. Students receive information about programs, including admission requirements, tuition and fees, books and supplies, technical and proctoring requirements, and student support services.

15. Students are provided with hands-on training and information to aid them in securing material through electronic databases, inter-library loans, government archives, news services, and other sources.

16. Throughout the duration of the course/program, students have access to technical assistance, including detailed instructions regarding the electronic media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.

17. Questions directed to student service personnel are answered accurately and quickly, with a structured system in place to address student complaints.

Faculty Support Benchmarks

18. Technical assistance in course development is available to faculty, who are encouraged to use it.

19. Faculty members are assisted in the transition from classroom teaching to online instruction and are assessed during the process.

20. Instructor training and assistance, including peer mentoring, continues through the progression of the online course.

21. Faculty members are provided with written resources to deal with issues arising from student use of electronically-accessed data.

Evaluation and Assessment Benchmarks

22. The program's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.

23. Data on enrollment, costs, and successful/innovative uses of technology are used to evaluate program effectiveness.

24. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness.

About the NEA

The National Education Association (NEA) is the nation's largest professional association of higher education faculty. NEA is also the nation's largest employee organization, representing nearly 2.5 million elementary and secondary teachers, higher

education faculty, education support personnel, school administrators, retired educators, and students preparing to become teachers. For more information visit www.nea.org.

About Blackboard Inc.

Blackboard is a leading online education company. Its software products and Web services reach 3,000 colleges, universities, K-12 schools and other organizations in every state and in more than 70 countries. More than 2.1 million people worldwide teach and learn in online education environments powered by Blackboard. Blackboard education partners include Academic Systems Corp., Archipelago, HorizonLive.com, Houghton Mifflin, KPMG LLP, Learnware, Microsoft, NextEd, Norton Publishing, Oracle, Pearson Inc., PeopleSoft, Sun Microsystems, Sylvan Learning Systems and The TLT Group. Additional information about Blackboard can be found at <http://www.blackboard.com>

About The Institute for Higher Education Policy

The Institute for Higher Education Policy is a non-profit, non-partisan organization whose mission is to foster access to and quality in postsecondary education. The Institute's activities are designed to promote innovative solutions for the important and

complex issues facing higher education. Recent reports include: What's the Difference: A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education; The Tuition Puzzle: Putting the Pieces Together; and Assuring

Quality in Distance Learning. Additional Information about the Institute can be found at <http://www.ihep.com>

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Appendix D: Current Library Services

ACCESS SERVICES:

CIRCULATION: duration varies, fee-based service for non-Cornell patrons

RECALL, RENEW, HOLD

RESERVE: paper and digital

ANNEX DELIVERY: paper and digital

INTERLIBRARY BORROWING: paper and digital no charge, special projects with charge

REFERENCE SERVICES:

REFERENCE & INFORMATION ASSISTANCE: desk, phone, e-mail, chat ref

RESEARCH CONSULTATIONS: appointment basis, can include database searches for patrons

INSTRUCTION: tours, orientations, bibliographic instruction sessions, workshops

PRINT AND ONLINE INFORMATION: pathfinders, skill guides, technical help, newsletters, maps, tutorials, course "webliographies" & other publications

FEE BASED RESEARCH SERVICES: Hotel, ILR

COLLECTION DEVELOPMENT:

SELECTION: identify & fund print and online resources (coordinates licensing issues)

PURCHASE REQUESTS: responds to suggestions

RESEARCH CONSULTATIONS: in-depth collection or language expertise

TECHNICAL SERVICES

ACQUIRES: print and electronic resources (manages licensing issues)

CATALOGS: print and electronic resources

D-LIT & IT:

DATABASE ACCESS & USER AUTHENTICATION

TECHNICAL ASSISTANCE

DIGITAL LIBRARY RESOURCE DESIGN

PRESERVATION:

DIGITIZATION

PHOTOCOPY SERVICES: fee based, copy from paper or digital

Appendix E.1: Individuals interviewed

Date Interviewed Title

2.29.00 Mary Sansalone Vice Provost,

3.16.00 Faculty Library Board

3.20.00 Patricia McClary Associate university counsel

3.30.00 Kate Mink Instructional designer, Office of Distance Learning

4.10.00 Dean Sutphin Associate Dean and Director, Academic Programs,

CALS

4.14.00 David Watkins Director, Media and Technology Services

4.20.00 Sarah Thomas University Librarian

4.27.00 Mary Sansalone Vice Provost, Academic Programs & Institutional Initiatives

4.27.00 Polley McClure Vice President, Information Technology

4.26.00 Brian Hawkins President, EDUCAUSE

5.3.00 Deborah Streeter Professor, Agricultural Research & Management Economics

5.11.00 Richard McDaniel Director, Cornell Campus Store

5.16.00 William Arms Professor, Computer Science and chair of the president's Advisory Committee on Distance Learning

5.16.00 Ken Mudge Professor, Floriculture & Ornamental Horticulture,

6.2.00 John Pollak Professor, Animal Science

Appendix E.2

Some Findings from DL Interviews conducted March to July 2000

1. People are uniformly positive about the Library's role in supporting distance learning once possibilities are described. Some faculty we spoke to are not clear about what the library could do to support their distributed learning efforts.
2. Among those we met with, there is excitement about the potential of distributed learning.
4. Those interviewed felt it was important to get moving soon and clarify the range of information services we would be able to provide.
5. The learning curve varies widely from one individual to another. Some people are ready now to do more design work, some have mature products, others just coming along. This presents us with the question of with whom should we partner with early on in the process and what we need to accomplish in the early stages.
6. The people with the best ideas about distributed learning are those who are furthest along in their development.
7. The first step is course development. After that, faculty look for partners to take over the ongoing maintenance function involved in providing content and instruction.
8. Some faculty spoke in terms of our creating course resources just for them . . . a customization process which libraries have traditionally rejected. Once created, the further expectation seems to be that we would be willing to manage those customized collections. A repeated theme was the Library's creating and managing image databases. One example related to brief film clip interviews with entrepreneurs. Another was the desire for a horticulture image database.
10. With so many projects/courses to choose from, there will be a problem of where to focus our resources. We will have to solve the problem of how to set priorities in terms of where to allocate whatever resources are provided for DL.
11. The university is reviewing the question of who is a student. This has implications not only for contractual obligations (i.e., database licenses) but statutory compliance as well. For example, is Cornell is obligated to accommodate disabled students who take distributed learning courses at a remote location?
12. Copyright, an already complex issue, is made more so in the context of a distributed learning environment. Getting clear answers regarding compliance with the Digital Millenium Copyright Act regarding digitizing and distributing content electronically is going to be critical. This latest legislation appears to make it even more difficult to distribute copyrighted information over the Internet.

13. Design of course material to be presented via distributed learning is extremely labor intensive. Enhancements to the content presented must grow as enrollment increases. For example, an article assigned to entry level students will generate questions about basic concepts, definitions, etc. used in an assigned reading. To anticipate these, and avoid flooding the instructor with repetitive questions, enhancements consisting of definitions, links to definitions, further readings illustrating basic concepts, etc. have to be developed and built in. Lacking these the course is unlikely to be cost effective because of the instructional support otherwise required. This has implications for the Library's role as we seek to collaborate with faculty on certain courses.

14. Because different course offerings require different levels of support, we may want to define those levels in some way in order to put cost figures around our services as a means of charging back to e-Cornell as appropriate.

15. Key providers of support upon whom a professor might call for assistance in building a course are CIT/Academic Technology Services [the former Office of Distance Learning], Media Services, the Center for Learning and Teaching, and CUL. As of late spring, there did not appear to be any evident coordinating mechanism in place which promoted sharing of information among these providers.

16. Protecting intellectual property rights is a concern of the faculty. They are worried about ability to retain control over content if outside dollars drive the agenda. [This was expressed earlier in our interviews when it appeared that outside venture capital would be secured to finance e-Cornell.]

17. One professor remained optimistic that more faculty would come on board once they realized that technical help would be readily available to enhance courses offered in a distributed learning mode and they could focus on content and broader design questions. Assistance from CUL promotes even greater acceptance.

18. Producing modules for distance learning requires substantial teamwork. In general, and with possible exception of those in the sciences, members of the academy tend not to work as collaborators . . . at least not to the extent which some distributed learning initiatives seem to require. We found exceptions to this assertion in CALS where several professors were working closely together on design and delivery.

19. Regarding e-Cornell, the initial focus is likely to be on certificate, continuing and/or executive education programs. Offering a certificate to confirm some sort of instructional experience requires a lower threshold of acceptance from faculty concerned with standards and entry into a program of study. The next step might be for a Cornell matriculated student to take a course via distributed learning which counts towards degree requirements and we found evidence this is already accepted in some departments. The final step towards broader faculty acceptance of DL may be courses leading to an actual degree, though this is likely to vary from discipline to discipline.

20. In terms of the university's ability to develop consortial relationships with other distributed learning organizations, some regard CUL as the most attractive resource with which to court outside potential

partners. One example cited was the slide collection at the Vet Library.

21. The campus store has a working model to produce course packs which draws on existing relationships with commercial, university, and scholarly publishers. Course materials sold/year through the Campus Store consist of 12 million pages of custom course packs and 10 million pages of custom class handouts . . . for all of which copyright release is managed by the Campus Store. Some of that is produced on site and the rest subcontracted and delivered to the Campus Store. Other firms, Kinko's for example, have electronic distribution capabilities worldwide; thus, content originating in Ithaca, for example, could be printed and made available at Kinko's stores around the globe. It is conceivable that for, some content, it may make most sense to deal with an established infrastructure rather than attempt to digitize, negotiate copyright release, and distribute ourselves. However, in the case of the Campus Store, they depend on high reuse rate (75% of their content is used more than once and typically up to 5 times before disappearing from their database). Thus, profitability relies on high volume over time using the same material. Lacking high reuse over time, these types of operations may not be willing partners in document distribution to remote users.

22. Along a spectrum of what appears to be suitable for delivery via distributed learning, certificate and executive education programs seem to lie at one end as "acceptable" with liberal arts courses at the other extreme. Some faculty feel that the type of exploration and discovery which characterizes the liberal arts education experience is not possible via distributed learning and has to be residential.

23. Some faculty are concerned that distributed learning may be a step towards reducing the number of teaching positions at the university, or that opportunities for summer employment (for those on nine month contracts) may be diminished if courses they would otherwise have taught are delivered using DL. None of the faculty we spoke to felt that any success they might achieve with DL to enhance the classroom experience clearly fits with the traditional reward system at Cornell. We need to consider whether this has any implications for those whom we seek out and with whom we need to partner in an effort to showcase what CUL can accomplish in this regard.

Appendix F

Cornell University Library

Position:

Director, Office of Distributed Learning

The Cornell University Library seeks an experienced and dynamic senior librarian to serve as Director of the Office of Distributed Learning. Applicants must have demonstrated ability to develop and manage a program of library support for distributed learning efforts originating throughout the Cornell University campus. Both commercial e-Cornell and for-credit programs of the university will produce distributed learning courses. The University is widely distributed, with 19 libraries serving thirteen schools and colleges. This position reports to _____.

Duties & Responsibilities:

- Provide administrative leadership for the CUL Office of Distributed Learning.
- Coordinate the development of appropriate library support for on- and off- campus students, assuring that all distributed learning students have the opportunities for library support equivalent to those of traditional students on-campus.
- Work with Cornell faculty members and librarians in the planning stages of distributed learning courses to ensure that the appropriate resources are provided to distributed learners regardless of their location.
- Coordinate the development / expansion of CUL's electronic resources in support of distributed courses offered by CU faculty.
- Serve as liaison to campus groups concerned with distributive learning such as e-Cornell.

Qualifications:

A professional degree in librarianship.

Experience working with distributed learners.

An awareness of issues and trends in distance education, digital initiatives, information technology and public services.

Demonstrated administrative ability with a minimum of four years of progressively responsible leadership.

Demonstrated success in developing and obtaining funding for new programs; evidence of initiative and resourcefulness in past activities.

Excellent organizational and communication skills.

Ability to work independently and effectively with a diverse clientele in a demanding and rapidly changing environment.

Appendix G: Staffing, Supplies & Equipment Model

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rev. for StaffWeb 9/14/00 jdl