



Public Performances and Private Acts

Anita Coleman

Distance learning using telecommunications technologies holds new and challenging promises for library and information science (LIS) education. Pedagogical, technological, cultural/sociopolitical issues and their impact upon the constituents involved—faculty, accrediting bodies, students, employers, and educational administration—need to be systematically studied. Findings of a research project that examined one of the human agencies involved in distance learning, full-time faculty at library schools who have taught LIS courses for graduate credit to distance learners using a telecommunications technology, are reported. The primary research questions were exploratory ones that sought answers about the impact of the distance-learning educational model upon faculty. The methodology used was a mix of written survey, telephone, and direct interview techniques. Faculty perceived that their role changed in the distance-learning model from what it was in the traditional classroom-based one. “Teaching is no longer a private act; it is a public performance.” Other findings are that more time is required for class preparation; patterns of interaction and communication between students and faculty are different; technical and managerial skills are needed; sociopolitical issues (such as copyright) need to be addressed; and specific knowledge about learning behaviors within this model is needed. Teaching, in this model, is a complex performance that may conflict with the prevailing organizational culture of both the institution and the academic profession. However, the “critical mass” of a library school teaching faculty (conspicuous for its small size) requires several changes if distance learning is to be pursued successfully, and these are discussed briefly.

This article offers some reflections on faculty concerns about distance learning for library and information science based on a survey conducted in the early spring of 1993. It also contains salient points from a subsequent historical study of the American Library Association (ALA) Board of Education for Librarianship (BEL) during its early years.¹ In keeping with the conference theme the discussion outlines the conflicts with the prevailing organizational culture encountered by the LIS faculty and the changes required.

Definition

“Distance learning” is a generic term that includes a wide variety of teaching/learning strategies. Other terms that are used are “distance education,” “distance teaching,” or “teaching at a distance.” Usually there are six defining characteristics for what composes distance learning.² They are:

1. teacher and learner are separated from each other by space and/or time;

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2. some organizational influence distinguishes it from private study;
3. some technical media, usually print, and more recently various telecommunications technologies are used to unite both teacher and learner;
4. two-way communication between teacher and student is provided for;
5. people are taught mostly as individuals and rarely in groups;
6. the elements of a more "industrialized form of education" (for example, mechanized procedures and mass-produced materials) are incorporated in administrative and clerical activities associated with teaching, such as session scheduling, postal and media dispatch.

With the use of telecommunications, one aspect of this definition is no longer true—people can be taught in groups as well as individually. This article is limited to a discussion of distance learning as a medium of instructional delivery for *graduate credit*. It is not concerned with external studies, continuing education, or the use of media in conjunction with traditional classroom instruction.

Distance-Learning Models

Institutions that teach at a distance are usually viewed in the light of four possible models: the correspondence school model, where the student learns almost entirely through the mail; the multimedia system, where the learner has a wide variety of learning media

and optional face-to-face sessions with the teacher; the consultation model, which includes face-to-face contact with teachers in addition to the correspondence sessions; and the integrated model, where distance learners are kept parallel with an on-campus group.³ The value or status of a course or degree taken via the integrated model has the obvious advantage of being considered somewhat on par, at least on paper, with the more traditional classroom instruction and is often therefore extolled as the preferred model for graduate education.

The Philosophy of Distance Learning

At the heart of the distance-learning phenomenon is a philosophy that higher education is a fundamental right and must be made accessible to all.⁴ Early distance learning evolved in order to meet the needs of geographically dispersed students. Distance learning today still has that accessibility component driving it. In the United States, the National Technological University (NTU) is a good example of a distance-education institution in engineering that has set a precedent for extending high-quality advanced-degree education electronically to engineers at work (for information check the URL <http://www.ntu.com/>).

Distance-Learning Research

Distance learning is commonly viewed as an innovation (as opposed to the tra-

ditional classroom method). Two theories of innovation, one general and the other specific to higher education and faculty in particular, are widely used in distance-learning research. Rogers' theory of innovation diffusion has been the most popular theory to apply.⁵ Rogers suggests that the presence or absence of certain characteristics (relative advantage, complexity, compatibility, trialability, observability) can predict not only whether the innovation will be adopted but also the rate of diffusion through the system. Lindquist's theory of innovation is specific to higher education and is from a faculty development perspective.⁶ It stresses the need for an open environment that seeks out disparate opinions, importance of material and psychic rewards, and leadership that is both guiding and authoritarian.

Other theories that have been applied are theories of communication and theories of learning. One study has even utilized an organizational development perspective that distance-learning programs are dynamic systems with multiple constituencies.⁷ These are faculty, students, administrators, accrediting bodies, and employers.

Irrespective of discipline, distance-learning research studies report that the effectiveness of this educational endeavor is not only measured by learning but also by other factors such as access to education, availability of educational information, cost-effectiveness, the degree to which teacher workloads are eased, faculty compensation, faculty attitudes about the teaching-learning process, technological literacy, exposure to new experiences, and involvement in novel activities such as building electronic communities, cooperative learning, and team building for problem solving.

Distance-Learning Research in Library and Information Science

There have not been many studies of distance learning in the field of LIS. In 1992, fewer than ten studies were identified. Most of the studies are descriptive surveys or case studies of a particular institution's experience. Care, however, has been taken to study the various constituents involved—faculty, students, and administration. For example, faculty perceptions of barriers to the use of and attitudes toward distance education; the perceived demands and needs of the distant and part-time learner; the academic advisement process; enrollment patterns; and learning outcomes.⁸

Study Design

Faculty are a critical component in the success of the distance-learning endeavor. Faculty who have taught an LIS course for graduate credit can therefore provide useful (albeit anecdotal) evidence about distance learning that can be used to build a profile of faculty concerns about distance learning. Data about faculty attitudes and experience with distance learning are used to present such a profile.

Distance learning for the purposes of this study was limited to those courses offered to remote students for graduate credit, using a telecommunications technology. Telecommunications technologies that were included in this study are audio-conferencing, cable, closed-circuit television (CCTV), computer conferencing, compressed video, electronic mail, freeze-frame audiographic, interactive television, low-power television (LP TV), satellite (microwave), teletext, and video-conferencing technologies. A distinction was made between whether the technol-

ogy used was two-way or one-way. Wilson provides an introductory description of these technologies.⁹

The population studied was full-time faculty at library schools in the United States with ALA-accredited master's degree programs in library and information science. They were identified by contacting the deans of the schools that had been included in the 1991 and 1992 ALISE statistical reports as using some form of telecommunications technologies to deliver courses away from the home campus.¹⁰ The survey was limited to full-time faculty because it was felt that they had considerably more participatory powers in the decision-making processes of the institution than part-time faculty.

The size of the population was extremely small (under seventy-five faculty were identified in the initial screening process). Therefore, no sampling was done.

The survey, with the same questions asked, was a mix of written, telephone (for follow-up), and direct interview techniques. The survey instrument was a questionnaire that was designed for this study (see appendix). It was pretested in November 1992 with ten faculty. Based upon the suggestions and recommendations of respondents, the questionnaire was modified before being administered in early January 1993. Follow-up interviews were done at the 1993 ALISE Annual Conference in Denver, Colorado, and over the telephone. The questionnaire comprised five sections. The first section gathered demographic data relating to the courses that the faculty member had taught, the year he or she started using an alternative delivery medium, and the technologies he or she had used for teaching. The second section requested faculty opinion about distance learning. The next three sections were opened and asked for information relat-

ing to their experience, opinion about the course suitability to the technology (for the courses they taught), and knowledge of three technologies—audio, video, and computer conferencing. For the questions relating to experience, the critical-incident approach was used so that perception would be based upon memory of an incident that really happened.

Analysis

Section 2, requesting faculty opinion, used a five-point Likert-type scale. The objective was to establish general opinions about distance learning. Sections 3 and 4, which gathered data about faculty experience and course suitability, were analyzed using three different kinds of codes—an enumerative code, a series code, and a frame-of-reference code. An in-depth study/experiment rather than a survey is necessary to determine course suitability with a particular technology. This study was more concerned with a general view of the suitability to the technology, and therefore general frames of reference that determined the course suitability were devised. An enumerative code was used to identify respondents' experience and a series-type code used to list the reasons for differences from the classroom method. Section 5, which tested for faculty knowledge of the telecommunications technologies, was analyzed on a simple binary code. No discrepancies were found between the written and interview parts of the survey, and in all cases the interviews provided helpful elaborative statements for the written survey.

Results

There was a 70 percent return rate for the survey. But the numbers are very

small. Only thirty full-time faculty at LIS schools are actively involved in distance learning. A number of the faculty who responded initially turned out to be adjunct faculty or coordinators of distance-learning programs. The number, however, is growing (five new faculty joined the ranks in 1991). Eighty percent ($n = 24$) of the written survey results were followed with a direct interview or telephone conversation. Table 1 lists the LIS school affiliations of faculty who participated in the study. The organizational structure of the parent institutions is similar. Do we find that state-supported institutions are more likely to embrace distance learning than private ones? This question would benefit research using an organizational development perspective.

Table 2 is a list of the courses these schools have taught via distance learning. The courses represent a fair portion of the LIS curriculum today and present

Table 1

LIS Schools Participating in the Study

S. No.	Name of School
1	Emporia State University
2	Florida State University
3	Indiana University
4	University of Alabama
5	University of Arizona at Tucson
6	University of Hawaii at Manoa
7	University of North Carolina at Greensboro
8	University of Oklahoma
9	University of South Carolina
10	University of South Florida
11	University of Texas at Austin
12	University of Wisconsin-Madison

a striking similarity to courses offered nearly seventy years ago. This has interesting implications about LIS course suitability to the technology used.

Table 2

LIS Courses Taught via Distance Learning

Courses	No. Faculty
Research Methods	3
Information Sources and Services	2
Humanities Sources and Services	1
Libraries Serving Special Populations	1
Popular Materials and Programming for Adults	1
Collection Development/Selection of Materials	3
Administration of School Library Media Programs/School Library Administration	3
Foundations of Library and Information Science	3
Literacy and Libraries	3
Materials for Early Childhood	3
Library Administration and Management	4
The Public Library	2
History of Libraries	1
Literature for Children's Librarians	1
Literature for Adolescents	1
Books and Media for Young Adults	1
Basic Cataloging and Classification	1
Organization and Description of Materials	1
Information and Society	1
Nonbook Media and Libraries	1
Introduction to the Profession	1
Microcomputers Applications in School Library Media Programs	1
Library and Information Technology	1
Instructional Design	1

Table 3
Courses Offered by the ACSL (1924–27)

S. No.	Course	Faculty Details
1	Book Selection	Helen E. Haines, Instructor, Library School Los Angeles Public Library
2	The Library Profession	C. Seymour Thompson, Librarian, Public Library, Savannah
3	School Library Administration	Martha Wilson, Librarian, Lincoln Library, Springfield
4	Public Administration	Joseph Wheeler, Librarian, Public Library, Youngstown
5	Cataloging	Frances Sedgewick Wiggin, Former Instructor, Simmons College
6	Children's Book Selection	Caroline Burnite Walker, Former Supervisor, Work with Children, Cleveland Public Library
7	The Special Library	Margaret Reynolds

In its very early circulars (1887–89), the School of Library Economy of Columbia College had identified and made plans for a correspondence library school project, but it was never carried out.¹¹ Thirty years later, Williamson also pointed to a need for correspondence education. In 1924, the American Correspondence School of Librarianship (ACSL) was started with financial support from Gaylord Brothers and with Azariah S. Root as director and Forrest B. Spaulding as assistant director.¹² Details of the ACSL's offerings are in table 3 and show a striking similarity to the course offerings today.¹³

In the survey, 92 percent of the respondents found their course suited to distance learning, irrespective of the course or technology, and 70 percent had proposed new courses. It can be argued that both historically and in terms of faculty perceptions today, the technology available for distance learning is not the critical factor affecting its implementation. The earliest year in which a faculty had started using tele-

communications technologies for distance education was 1980.

Figure 1 shows the year participants started teaching in the distance-learning model. As can be seen, the numbers are pathetically small, even though they are growing (a trend that is likely to continue because technological advances are making interactive conferencing widely available, and the market pressures facing higher educational institutions have resulted in their willingness to explore an alternative medium of delivery to the class-bound lecture). As there are about 700 full-time LIS faculty in the United States, this means that possibly less than 5 percent of them ($n = 30$) are involved in distance learning. The significance of this statistic can be weighed in the light of a statement made by the oft-quoted educator Williamson.

Williamson, in his 1923 report prepared for the Carnegie Corporation of New York, begins the chapter "Correspondence instruction" thus:

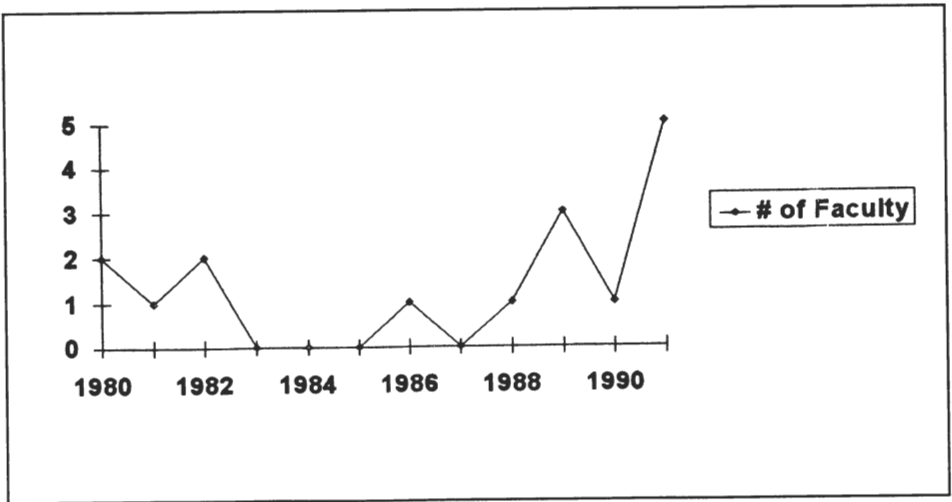


Figure 1. Year LIS Faculty Started Using Distance Learning ($N = 15$)

Nothing better illustrates the general backwardness in the development of library service and technical training for it than the almost complete failure to make use of the correspondence method for instruction.¹⁴

Williamson was also eloquent about the reasons for this backwardness. One of them, he says, is "prejudice." "Long overworked and underpaid, submerged in routine duties and free from a strong public demand for efficiency, librarians as a whole have not themselves been innovators." Figure 2 reflects faculty opinion about distance learning. While the figures don't reveal whether Williamson was right or wrong, it can be seen that one faculty felt that distance learning was a secondary form of education, and that five preferred to remain neutral.

Educational research findings show that the old concept of audiovisual aids as supplements to teaching can no longer be accepted, and that *media are not supplementary to, or in support of, instruction but must be designed and presented as the instructional input it-*

self. Distance learning is therefore best viewed not as an alternative medium of delivery but as the conscious choice for optimal instruction. The attitude or belief that classroom education is the best is the first area of conflict.

Table 4 shows faculty responses to attitudes about distance learning. They can be graphically represented (see figure 3), and it becomes obvious that there are divergent views about distance learning for LIS education.

Ten respondents reported that they spent more time preparing for a distance-learning class than a regular class (see figure 4). One participant described the reasons preparation took longer:

Nothing can be left to chance in distance education. Communication must be crystal clear. Anything that can be misunderstood—and that's everything—will be misunderstood. Much time spent in preparing handouts, lectures, outlines, in considerable detail, cooperative collaborative learning activities carefully structured and in the hands of the students before each class, attractive, well-designed visuals, coordinating

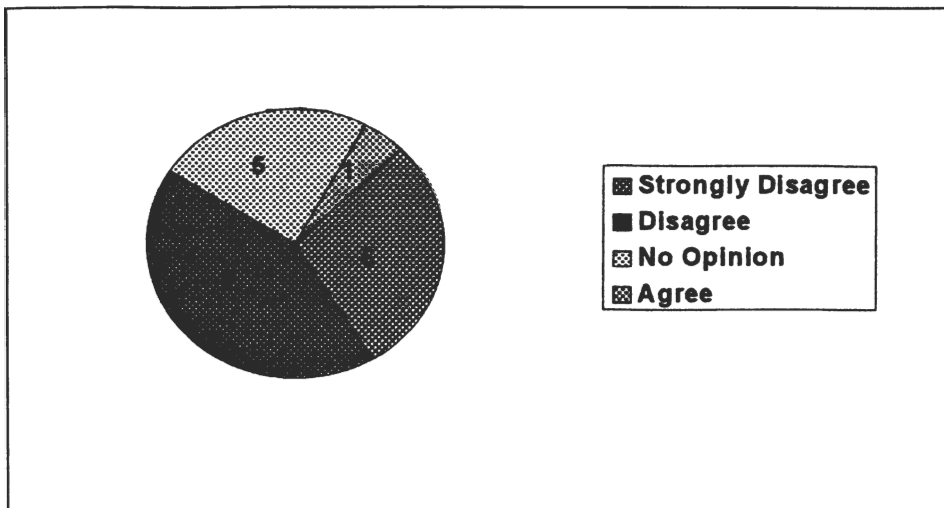


Figure 2. Distance Learning Is a Secondary Form of Education

Table 4

Faculty Opinion about Distance Learning

Attitudes	SD	D	N	A	SA
1. Instructional delivery using telecommunications technologies is more time-consuming than traditional classroom instruction. (N = 20)	2	3	-	7	8
2. Library and Information Science course content are suited to the traditional classroom method rather than distance education with telecommunications. (N = 21)	5	14	2	-	-
3. Distance education using telecommunications technologies is a suitable method of instructional delivery for Library and Information Science course content. (N = 22)	-	-	2	12	8

with the interactive television system staff and audiovisual services, coordinating with information technology graphic artists on visuals, more time-consuming arrangements for guest speakers because the producer wants to instruct them beforehand, etc., etc. etc.!! Everything takes longer! It makes classroom teaching like a piece of cake.

Four disagreed. They felt that both models necessitated the same amount of preparation time. Six others sepa-

rated the lesson preparation time from administrative and other technical jobs that needed to be done before the class.

All of the respondents realized that this medium of delivery entailed details such as preparing seating charts for the students, getting significantly more numbers of audiovisuals ready, scheduling time with the production studio technicians, and preparing for follow-up with the students in multiple ways. There were differing views on how these activities should be construed and

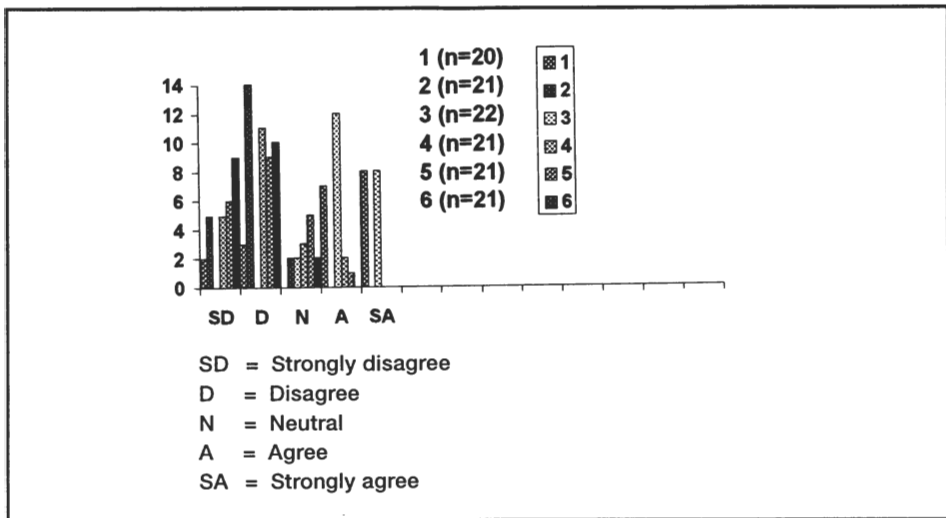


Figure 3. Faculty Attitudes about Distance Learning

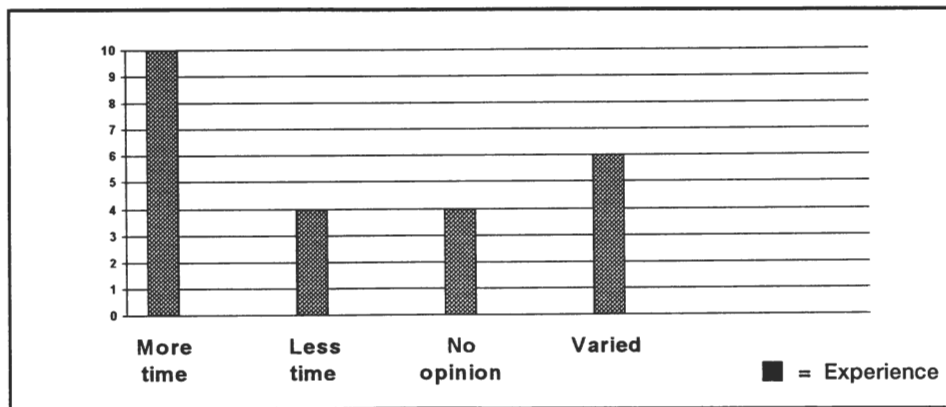


Figure 4. Faculty Experience with Class Preparation Time (N = 24)

supported. Some felt that the extra time spent on these activities should not be construed as lesson/class preparation time; nor can it be supported by traditional graduate and office assistants. Rather, the time should be accommodated differently, especially since the faculty were no longer in charge of it and were dependent on the schedules of staff in other departments, such as the production studio. Institutional "traffic

controls" that cut delays and red tape need to be explored and instituted. The amount of time spent on distance learning, whether in preparation of class materials or related activities, is a potential source of conflict. "The technology can provide the opportunity for instruction far beyond what traditional extension teaching can do—but at what cost to the academic rigor, choice of classroom delivery and content and research time for

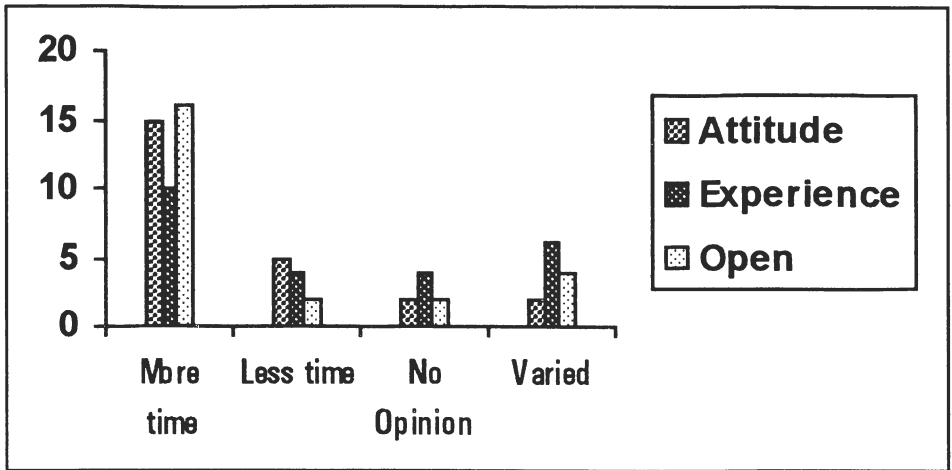


Figure 5. Impact/Conflicts of Class Preparation Time upon Faculty ($N = 24$)

the faculty?" Faculty find it increasingly difficult to do quality teaching, research, and public service activities in the distance-learning model. Research is often the first to be neglected. The conflict of time is well illustrated by figure 5 above, which shows faculty perceptions, actual experiences, and articulated views about class preparation time in the distance-learning model.

Another finding to emerge from this study concerns the faculty role in the classroom. In the traditional classroom (one-to-many lecture or small-group interaction learning situations) the faculty member was very clearly in the role of teacher and in control of the learning. In the electronic classroom the role was different. He or she was an actor, a teacher, a facilitator, a learner, and an audience all at once. Respondents were surprisingly articulate about the "acting." "The teaching act is no longer private, it is now a public performance," and teachers must be good showmen if they are to keep the audience interested and learning. Six faculty showed themselves to be aware of the theatrical or performance element

in their teaching. Teaching skills and pedagogical methods used with this type of education must afford "role enhancement, not replacement," they felt, if the teaching and learning are to be successful experiences. "An actor prepares," said another one, recognizing the dramatic and visual appeal that teaching in this model might have and acknowledging the power of presentation skills. This public performance role is in contrast to the traditional view of the teacher as the subject expert and mentor engaged in a private interaction with his or her students and who knows some, if not all, of their strengths and weaknesses well. It raises ugly fears about not only who is in control of the learning (student or teacher), but also about conflicts of performance. Should the repertoire of teaching skills include presentation and acting techniques?

"Expertise in the teaching area is no longer sufficient in this type of educational enterprise." Two other skills become increasingly important—communication and team building. In the traditional classroom the instructor in-

teracted only with the students. Now interaction occurs with the students, the production studio technicians, the instructional designers, and clerical help. Better management of time that translated into efficient time-allocation skills was felt by many to be imperative. Since faculty were dependent upon other people's expertise and help, supervisory, negotiation, and management skills also were recognized as important.

It can be argued that all of the above skills were required of faculty in the traditional classroom, but it certainly was not critical to the success of the teaching experience, or so faculty surveyed seemed to think. But in the distance-learning classroom they are crucial.

Along with changing faculty roles, socialization norms and student roles change in the electronic/technological classroom. A number of respondents reported that feedback and interaction among students and faculty were among the positive aspects of using technologies for distance education. More research needs to be done in this area, especially research using the experimental method rather than a case study or survey approach. How exactly do the student roles change? Respondents were fascinated by the amount of involvement and motivation distance-education students often displayed. They also felt that the use of technologies fostered team building, mentorship traits, and cooperative/collaborative learning.

A number of respondents (95 percent) reported that their involvement in distance learning—the lesson preparation, careful planning of every move, structuring, and visual thinking of the class—resulted in improved teaching in the traditional classroom.

Technical breakdowns and failures are often cited as a major disadvantage of distance education. Surprisingly, only 23 percent of the respondents re-

ported as such in this survey. Either the technology has improved, or the people using it have become acclimatized to breakdowns and do not notice when it does happen. But among those who reported it, there was a definite sense of anger and frustration for the time lost and the feeling of dependency upon technicians.

All respondents noted that use of audiovisuals and graphics was an advantage, but some commented directly upon how learning occurred with such use. Cataloging problems worked out by students could now be displayed for all to see, simply by focusing one of the studio cameras on the item. Many of the respondents had experts in the field call in for a discussion session with the students. Many of the issues were brought directly into the classroom when the person involved in the politics or incident was invited as a guest speaker.

Copyright issues were reported to be a murky area. Schools had not yet identified clear and explicitly stated guidelines about ownership, first-time use, reuse, and archiving of taped materials. Who owns the tape or copy of the lesson, the school or the instructor? Can the school still use it once the faculty is no longer with them? Broadcasting copies of copyrighted materials violates existing copyright laws and requires that permissions be requested.

The difficulty of small-group discussions and class participation was identified as a disadvantage by 80 percent of the respondents. Some of them felt that there was less spontaneity because of the lack of visual cues and direct communication protocols and that this made the discussions remote and difficult. Even those faculty to whom group work was not a problem responded that it was time-consuming and took a lot of hard work to keep it successful. Establishing rapport with the students was also time-consuming

and difficult. The quality of the discussions via e-mail and computer conferencing was, however, perceived to be more meaningful and focused and also seemed to encourage wider class participation.

One finding that is emergent in nature is that schools are no longer being geographically limited to the region where they are located. Will this spur cooperation or competition among LIS schools?

A surprising lack of familiarity with the delivery technology was revealed by 34 percent of the respondents, indicating a need for a new definition of telecommunications (or information technology) literacy.

Discussion and Conclusion

In summary, in the distance-learning model some faculty spent an increased amount of time in class preparation; reported differing and varied patterns of teaching, structuring, interacting, and communicating; stressed the importance of developing technical and managerial skills; and recognized the need for knowledge about student-learning behaviors and appropriate in-

structional strategies. Others found teaching in this model no different from teaching in the classroom, recognized the role in learning that audiovisuals and graphics played, and bemoaned the lack of mentoring and socialization mechanisms. While no definitive conclusions can be reached based on disparate findings from a small number of participants, a profile that identifies the main concerns and perceptions of faculty regarding distance learning can be developed. The profile also highlights the concerns faculty have about juggling increasingly stringent academic requirements for tenure (through research, teaching, and public service activities) with the time and labor-intensive task of teaching utilizing a model that demands great forethought and structure. Options that are available for future faculty development and distance-learning research efforts can be identified using such a profile.

The profile represented by figure 6 reflects a composite picture built from faculty's reports and perceptions about their most positive experience in teaching with the distance-learning model. Forty-four percent of faculty felt that access—the fact that students who

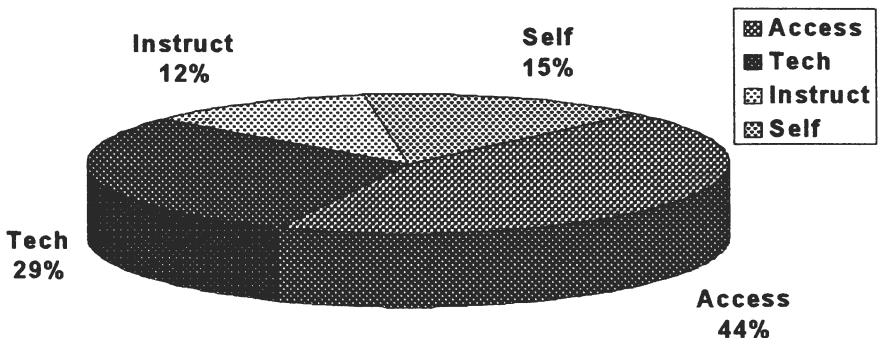


Figure 6. Profile of Concerns

could previously not take their courses could now do so in the distance-learning model—was their most positive experience. Twenty-nine percent felt the technology used was the positive experience. Fifteen percent felt that advantages to self—no longer was there a need to drive to remote campuses—was the positive experience. Only 12 percent reported that the learning that occurred because of the use of distance learning—for example, the ability to zoom the camera to highlight the solution to a cataloging problem and thereby focus attention on the solution highlighted—was a positive experience. If distance learning is to have any impact upon teaching and learning behaviors specifically and academia in general, its profile must change from a preoccupation with access to a concern about the kinds of learning that take place with a particular technological stimulus and its possible usefulness for LIS education.

As early as 1923, a committee that investigated correspondence instruction to meet the needs of rural and small libraries had identified the need for greater access to LIS education. The 1919 meeting of the Association of American Library Schools (AALS) in Atlantic City, New Jersey, had discussed Williamson's recommendations for correspondence instruction. A committee of three (Marion Horton, John Cleavinger, and Susie Lee Crumely) investigated the recommendation and presented its report at the meeting in 1923.¹⁵ Essentially, the report felt that the well-prepared correspondence instruction for certain library subjects could be a better method than the resident method. It also identified the role of the teacher as that of an artist "who must create his own method, technique and atmosphere, doing more than to correct errors and communicate information." The report initially intended to present a plan, but because of widely

divergent views held by the library schools surveyed, it did not make any strong recommendations. Consequently, with neither BEL nor AASL support, the American Correspondence School of Librarianship, financed by Gaylord Brothers, was founded in 1924 and flourished until 1927. It is not the purpose of this article to follow the fortunes of the ACSL, but to point out that there is a historical precedent for the conflict that faces distance-learning efforts.¹⁶ LIS education has not changed much since the reports of the Committee of Three and Williamson. Several changes need to be made by faculty if LIS education is to evolve any further.

Prejudice (such as the idea that technical skills could not be taught, they could only be acquired on the job) was the single largest factor that had to be defeated in the late nineteenth century before education began to influence industry and successfully displaced the inventor and the craftsmen with the specialist and the professional.¹⁷ Several faculty in this study noted that the time for distance learning is here. One educator wrote: "We must realize that the opportunity is here to stay and make it work well. Our research shows that learning is not hindered by the technology; however, our students do not think it is the best way to learn." Yet another one said: "I realize that distance education and telecommunications are important if all education (not just library science education) is to survive. Students get so little support for professional education—they just can't afford traditional full-time campus life." Both these statements make conflicting demands of teachers and call for a new definition of the faculty function, one where the teaching and research functions merge into a more efficient whole.

Another change that is urgently needed is for more faculty to participate

in distance-learning efforts. This study has unearthed no really new information about distance learning. Barron had similar findings, although his study included all faculty irrespective of experience with distance learning.¹⁸ But the performances of the 5 percent involved in distance learning whose experiences are reported here will remain private acts and maybe become personal travails if their numbers do not increase. Faculty are obviously a critical factor in the success of the distance-learning endeavor. The potential impact of distance learning upon a critical mass of faculty that is conspicuous by its smallness must be carefully considered, keeping the experiences reported here in mind.

Second, professional associations must encourage and sponsor a rigorous research program in this area, possibly based in schools of education. The establishment of a clearinghouse for course materials might ease many of the frustrations and copyright problems about instructional materials preparation and availability.

Last, three definite issues must be considered—technology, sociopolitical concerns, and pedagogy—before distance learning is implemented in any organization. Technological issues should include a discussion of the appropriate technology, training needs, and maybe even a new basic definition of telecommunications literacy that encompasses audio, video, and computer-conferencing technologies. The pedagogical issues become relevant in the context of a profession that can claim as its intellectual domain the organization of formal knowledge and its dissemination to all those who want it. We need to identify a pedagogical framework that is consistent with and sustaining of the values of the profession and one that is not given to the missionary zeal that distance-learning proponents usually advocate by identifying

access as the primary goal. Instead, the focus should be on the kind of learning that distance education facilitates. The sociopolitical view is probably the most controversial—can beliefs about traditional education be changed; what are people's perceptions about what it is to be a library educator; will employers accept the M.L.S. degree that is granted through a distance-learning program; will accreditation standards change? It also includes the financial aspect. Technology is not only expensive, it becomes obsolete quickly. Is distance learning a cost-effective enterprise? Each of these issues needs to be resolved, as well as the conflicts of time, performance, and control that a conspicuously small faculty face. The first order of business is, however, to build a critical mass by encouraging more full-time faculty to use distance learning as one delivery method of "normal" education and to cooperate with other units on campus in identifying a rational framework for research in this area.

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Appendix: Survey

Section I—Current Status of Distance Education Using Telecommunications Technologies in LIS Schools

1. What courses do you teach/have you taught using telecommunications technologies for distance education?
2. In what year did you, as a teacher, personally start using telecommunications technologies for distance education?
3. Please circle the telecommunications technologies that you use or have used. State whether one-way or two-way.

Audioconferencing

Electronic mail

Cable

Freeze-frame audiographic

Closed-circuit television (CCTV)

Video-conferencing

Satellite (microwave)

Teletext

ITFS (Instructional Television
Fixed Service)

Computer conferencing

Low-power television (LPTV)

Other (please state the name)

Section II—Faculty Opinion about DE's Using Telecommunications Technology

Please answer the following by circling the one that matches your feelings/attitudes: SD (strongly disagree); D (disagree); N (neutral); A (agree); SA (strongly agree).

1. Instructional delivery using telecommunications technologies is more time-consuming than traditional classroom instruction.
SD D N A SA
2. Library and information sciences course content is suited to the traditional classroom method rather than distance education with telecommunications.
SD D N A SA
3. Distance education using telecommunications technologies is a suitable method of instructional delivery for library and information science course content.
SD D N A SA
4. Distance education, even with telecommunications technologies that are real-time and interactive, can never offer the same quality of learning that the traditional classroom method can.
SD D N A SA
5. Distance education, even with real-time interactive telecommunications technologies, is a secondary form of education.
SD D N A SA
6. Distance education, even with real-time interactive telecommunications technologies, is unsuitable for graduate library and information science education.
SD D N A SA

SECTION 3—Faculty Experience with Telecommunications Technologies for Distance Education

1. Please name one of the telecommunications technologies that in your experience has been the most comfortable as an alternative delivery medium for LIS education.
2. Based upon your experience, please name one or more of the telecommunications technologies that are suited for each of the courses you teach. If you think none are suited, please say so. If you think traditional classroom instruction methods are preferred, please note that, too.

Course _____ **Telecommunications technology** _____

3. Please describe your most pleasant experience with telecommunications technologies for distance education.
4. Please describe your worst experience using telecommunications technologies for distance education.
5. What, if any, in your experience are some of the advantages of distance education using telecommunications technologies? Name up to three advantages.

1. _____

2. _____

3. _____

6. What, if any, in your experience are the disadvantages of distance education using telecommunications technologies only?

1. _____

2. _____

3. _____

7. Have you yourself proposed a course using telecommunications for distance education? If yes, please state the date proposed, the name of the course, and the technology proposed.

Section 4—Course Suitability to the Technology

Please complete a separate sheet for each course that you teach or have taught using telecommunications technologies for distance education.

COURSE NAME: _____

1. Briefly identify the parts of the course that you teach/taught that in your opinion were especially suited to the technology.

2. Briefly identify the parts of the course that you had a difficult time with in teaching using telecommunications technologies.
3. What are the demands of the classroom delivery method for the same course?
4. How much time do you spend per week preparing for each course that you teach using telecommunications technologies?
5. How much time do you spend preparing for each course when it is offered using the traditional classroom method?
6. List/describe those factors that are the primary cause(s) for this time difference.

Section 5—Faculty Knowledge of Telecommunications Technologies for Distance Education

Please answer the following questions based upon your current knowledge.

1. Describe in your own words the hardware and software components of an audio teleconferencing system.
2. Describe in your own words the hardware and software components of a video teleconferencing system.
3. Describe in your own words the hardware and software components of a computer conferencing system.
4. Describe in your own words the telecommunications technologies, in terms of hardware and software, that you currently use.

Please add any other comments that you may have about the role and use of telecommunications technology for graduate professional library and information science education.

Could I have a half-hour appointment to call you during the week of February 20?

Time: _____

Date: _____

Phone: _____

Name and institutional affiliation: _____