

## "Critical Issues Related to Internet Teaching"

### Abstract

With nearly ten years of actual Internet graduate course teaching experience, initially motivated by lack of information regarding such a mode of instruction, some questions can be finally answered with some degree of certainty. This session will provide a practical demonstration of an actual course structure, organization, and delivery along with critical issues related to the asynchronous delivery of graduate library and information studies courses over the Internet. Participants will learn, among other issues, about course preparation time, instructional design, support staff requirements, student participation, assignments, limitations, and instructional dynamics unique to Internet teaching. All issues related to the good, the bad and the ugly will be addressed in this session.

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My first exposure to the problems of Distance Learning came when the Dean of the School of Information and Library Studies at the University at Buffalo approached me during the fall semester of 1995 and asked whether I would chair a Distance Learning Committee in the School. I agreed. Two colleagues and I were charged with examining all the ramifications of developing Distance Learning offerings for the School and making recommendations to the Dean. It became very clear during the first meeting that many issues were going to be raised by the Committee that could not be answered. The Distance Learning Committee ultimately identified the following nine principles that were to guide the development of the School's program. Comments following each principle are mine.

#### **1. During the first year, Distance Learning will be offered as a few individual courses instead of a complete degree program.**

It is strongly recommended that professors gain experience by developing and teaching Distance Learning courses before attempting to develop a complete degree program. Time is such a critical factor when developing Distance Learning courses that the thought of committing to a complete degree program initially without first experiencing the hours and energy required to develop and teach one course is overwhelming. Any professor can conceptualize a complete library and information degree program on paper in a matter of minutes. But it is something else to be able to offer and deliver such a program with any degree of success without first experiencing the time and energy required to teach Distance Learning courses.

#### **2. Distance learning is at its best most effective when the method of instruction, topics and, formats used are selected by professors teaching the courses.**

Without question individual professors are best qualified to make decisions regarding what content should be taught and how it should be delivered. Professors know the content and are best qualified to determine the impact that a delivery system will have on learning. This is not to say two professors teaching the same course would agree on what will work. Style and personal preference ultimately impact each decision. As awkward as it seems, a degree program via Distance Learning may have several delivery systems. Such a program may be richer because of the use of several delivery systems.

Some of the best Distance Learning instruction delivered has used the least complex technology. Based on my experience, the best instruction has quality interaction between students and the professors regardless of the delivery system selected.

If a department or campus wants to expand the number of professors teaching Distance Learning courses, it should provide significant financial incentives, give released time, provide both the equipment and software for professors to use at home, indicate Distance Learning expectations and incentives when hiring professors, and offer several Distance Learning delivery options.

### **3. Individual professors, not the administration or a departmental committee, should determine if they want to teach Distance Learning.**

There is no question that only those professors willing to teaching Distance Learning courses should be assigned such. One can imagine the price students, and a program would pay if someone is assigned to teach a Distance Learning course when he or she has no interest in this method of instruction.

### **4. Distance Learning may be offered simultaneously as a mode of continuing education (CE) credit at a reduced tuition rate.**

This can be done easily since it is only a matter of special registration and notification of the professor so the proper expectations and assignments can be made during the semester. The professor should make the ultimate determination if continuing education students shall be in regular MLS Distance Learning classes. Those students at Buffalo taking Distance Learning courses for continuing education credit have brought a wealth of experience to the class.

### **5. Distance learning courses for credit should have the same expectations and standards for students as courses offered on campus.**

This goes without question. Sometimes professors find themselves requiring higher expectations from Distance Learning classes just because their colleagues might question the expectations and standards

in such courses. Once the question of monitoring Distance Learning classes was raised at Buffalo, it was immediately dropped when it was suggested that all MLS courses should be more closely monitored.

**6. The professors initially teaching Distance Learning courses must be given special consideration at the time of their annual evaluations. The preparation for Distance Learning will significantly impact the time faculty have for research, publication, grantsmanship and community service.**

Professors working toward promotion and/or tenure should not be teaching Distance Learning courses unless the administration has in place specific criteria, and demonstrated the availability of awards, which can be used for advancement consideration. One experienced professor noted, "...spending time in developing DL courses could even be so demanding on junior faculty as to detract from their ability to be competitive."<sup>1</sup>

There is no question that delivering instruction over the Internet requires a significant increase in the course preparation and delivery time aside from the other normal preparation time required for a course. At Buffalo it was estimated that initial preparation time to deliver each new Distance Learning course was nearly ten times more than a traditional classroom course. After the first delivery, preparation time was reduced roughly to four times the normal teaching preparation. The third time the same Distance Learning course was taught it required very little preparation except for adding new and developing topics and refining lecture notes.

Nothing has reduced the time required to read student comments during discussions on the WebBulletinBoard. A conservative estimate is that three to four hours a day is required just to communicate with Distance Learning students on a WebBulletinBoard. Additional time is required to answer student e-mail messages. One way to reduce this time would be to have Ph.D. students read discussions or have professors just selectively read comments made by students. Some professors do not actively participate in the class discussions thus reducing their class participation time significantly. However, this is not recommended.

**7. The professors will be reimbursed for out-of-pocket Distance Learning expenses (travel, overnight accommodations, material). No personal money should be expended for reimbursable Distance Learning expenses without prior approval from the administration.**

Most of those who teach Distance Learning courses would add to this principle that the academic institution should provide each Distance Learning professor a home computer, applicable computer programs, pay for additional Internet access lines required, and the cost for Internet service to the professor's home. The number of hours required to prepare and deliver Distance Learning courses requires these additional resources. Some Distance Learning courses may require driving to meet with students, staying overnight when traveling distances, long distance calls, and meals.

**8. The professors should be given released preparation time from one course the semester prior to initially teaching a Distance Learning course.**

There is no question the added workload is the major drawback confronting many professors willing to teach Distance Learning courses. A minimum of one released course the previous semester is required as an enticement. It is strongly suggested that professors be given a reduced teaching load the previous semester plus pay for the summer to prepare for their first Distance Learning course. The second time the course is taught, the professors should be given a reduced teaching load the semester the course is taught. The third time the course is taught the professor will teach the course as a normal load without special compensation unless the class is large or is a required course (core) for all students in the program. This being the case, a graduate assistant and extra salary based on the additional head count should be provided to the professor.

**9. The professors should be compensated with pay comparable to that received for teaching an extra course. Should an excessive number of students be registered in a course, additional financial compensation should be made to the professors.**

This is a most difficult principle since so many factors must be taken into consideration. Good judgment by administrators is critical along with campus policy regarding extra pay. Should a Distance Learning course attract an unusually large number of students, then obviously the answer is clearly, yes. Also, pay consideration should be made the first two times a Distance Learning course is offered. This consideration can be allocated as released time or paid summer preparation time. Both should be available.

The Library and Information Studies program at the University at Buffalo pays the professors \$200.00 for each student registered in their Distance Learning course over twenty-five and not to exceed twenty percent of the professor's base salary. It considers one Distance Learning course the same as teaching one campus course. This appears to be reasonable compensation for teaching Distance Learning courses.

**Two additional principles I now support:**

- *Ownership of Course Content should rest with the professor*

The professors should own and retain the content of all Distance Learning courses. As most Distance Learning courses are currently being taught, like those on campus, professors retain the content. Professors often avoid Distance Learning presentations/classrooms/delivery systems where lectures are recorded.

- ***Three Support Staff are Required***

Several months ago an author writing in a journal indicated that a person teaching Distance Learning should have approximately twelve support staff to help develop various aspects of the course. Instructional designer, WebPage designer, computer specialist, typist, programmer, systems designer, testing specialist, etc. are all required, according to this author, to help support quality Distance Learning courses. Most Distance Learning professors would love to have such support but realize fewer are actually required. A minimum of three dedicated support staff should be available. Three critical personnel choices would be a WebPage designer, computer specialist and a typist. Additional support staff would be nice, but these three are essential. An instructional design specialist would help the professors develop Distance Learning as a student-centered learning experience instead of a professors-center experience. This may be the hardest concept for traditional professors to learn and to accept.

It is almost impossible to deliver Internet Distance Learning courses without the assistance from a computer technology person who can setup and administer WebBulletinBoards, chat rooms and other related technology. It also helps to have two students each year who act as WebMasters for each Distance Learning professor. These students can update syllabi, course schedules, check links, develop specialized WebPages, organize presentation content, complete literature searches and the like.

Effective Distance Learning courses require detailed organization, precise and timely student feedback, campus support both from clerical and technical staff, and extensive library resources on the subject being taught. A quality library can either be physically near the students, or students must have electronic access to materials and services. When an institution cannot provide this minimal support, distance learning courses should not be offered.

Without much effort any academic can come up with an additional dozen equally important Distance Learning principles or questions which he or she would like addressed. And for the committee, this was the dilemma. Anyone could come up with the principles and questions, but the best minds could not determine equitable answers that satisfied both the professors and administration. It was obvious, only after teaching Distance Learning courses could reasonable solutions be suggested for some or all the principles. With practical experience, much of the frivolous speculation regarding how one should resolve Distance Learning issues could be put to rest.

## **Delivery Method**

Distance Learning teaching for me was like hitting the ground running without any prior experience. Since I, as Chair of the School's Distance Learning Committee, was only a few years from retirement, and my career would not be damaged from whatever was required, or time needed to deliver Distance Learning courses, I eagerly stepped forward. No other professor had taught a Distance Learning

course before at the University at Buffalo. But, what was learned in the process, would help provide some basis which future decisions could be made. I, therefore, decided to experience firsthand the issues, problems and rewards related to this method of delivering instruction in an alternative manner. Although it would be a new challenge at this stage of my career, more importantly, someone really needed to step forward and make the effort so personal experience, instead of speculation, was the basis for future Distance Learning decisions.

Having several systems of Distance Learning delivery available for consideration, I carefully examined the content in my courses and personal style for organizing and delivering instruction. My one goal was to select Distance Learning technology that remained as nearly transparent to students as possible. The focus would be on quality content and learning instead of the delivery system. Students were not required to have special computers or technology, only Internet access.

The studio/classroom television delivery method was available but limited because of strict scheduling and only two available distant receiving locations at the time. More important the question of ownership of course, content was a major concern. Producing videotape presentations and mailing them were a possibility, but the extensive interaction with students was thought extremely important, but impossible using just this method. Asynchronous Internet instruction education (not fixed to specified delivery or receiving time) was selected because it could be delivered throughout the world without requiring extensive technology support staff. And most importantly, I would retain complete control over the content of each course.

### **Buffalo's First Course**

During the Spring Semester of 1996, I met my *Academic and Research Libraries* class the first day on campus and offered them the option of taking the course either over the Internet via an asynchronous listserv method or attending classes on campus. I was prepared, and willing to provide both options should students not feel comfortable taking a course over the Internet. Students were not asked which method they preferred. That would be demonstrated by their choice of attendance in the classroom or participation on the listserv. The second day of the course when I entered the classroom I was alone. The same was true the third day. All twenty-four students decided to take the course over the Internet. The first asynchronous Internet course was launched not only at the School of Information and Library Studies, but at the University at Buffalo. This is significant since the University at Buffalo has nearly 27,000 students and is the major higher education institution in New York State. This is not the type of institution that is willing or changes easily.

There is nothing like jumping into a whole new instructional delivery system with both feet and without a life jacket. How bad was it? At that time, the School had not even issued me a computer for my office. I had no technical support staff other than a person in the Computer Center willing to setup my listserv. All my lecture notes were basically key words on 3X5 note cards and needed to be expanded and typed. Personal and course WebPages needed to be designed, created, and time was required to workout all the technological bugs of posting, reading and responding to students.

I had a computer at home connected to the Internet so total preparation, access and delivery that first semester was from my home using a normal telephone link. It should be added, I was and am nearly a total novice when it comes to computers and computer technology.

Over the past twenty years, I had taught *Academic and Research Libraries* by visiting several academic libraries during the semester with my classes so they could interact with academic librarians in the field and actually see the workings of real libraries. This was an excellent process since so often the students could see and physically examine real world examples an academic librarian had just discussed with the class. I could see implementing this teaching method in an Internet Distance Learning class would be most difficult. Therefore, the next best thing to do was have several academic librarians actively participate with the class on the listserv to discuss specific course related topics.

The class had twelve sessions with three or more academic librarians each session that were specialists in some aspect of academic librarianship. These librarians discussed with the class information around an assigned topic. For example, if we were discussing "Technical Services" a group of technical service librarians joined the class listserv. This method of instruction would have almost been impossible to accomplish in a campus classroom or by visiting academic libraries.

Listservs are fine for limited written communication. However, they can be rather chaotic when twenty-four students and three academic librarians are trying to carry on important dialog twenty-four hours a day for seven days. The major problem was the volume of messages on the listserv and how messages followed one another randomly as they arrive instead of threading to one of the several topics under discussion on a given day. A normal week would have approximately 200+ messages on the class listserv. With five or six major subtopics taking place at a time, and none of the discussion messages threading, mass confusion greeted the class daily. But somehow, everyone showed extreme patience and worked their way through the first and last listserv Distance Learning course.

The academic librarians were from all over the United States and two from the University of the West Indies in Trinidad and Tobago. They represented everything from large research to small community college libraries.

The last day of the semester the class came together on campus in the same room that had been used only once. They shared experiences and feelings regarding the course. A formal course evaluation was administered. The results indicated that nearly every student liked the course equal to or better than traditional classroom courses. One of the themes that came up during the class discussion was how many students felt they had participated more in this course than in traditional classroom courses. Several students said they felt closer to the professor than in traditional classroom courses. Surely, there might have been a little Hawthorn Effect (knowing one is in a experiment and performing according to expectations) working on the class. These students were pioneers, and along with the professor, wanted the course to succeed. Although I felt the course was successful, it had a long way to go before it reached my level of satisfaction.

Additional courses in *Marketing of Information Services, Intellectual Freedom, Management of Library and Information Agencies, Selection, Acquisition and Management of Non-Book Material, and Government Publications* have been added to the School's Internet offerings over the following

years. This year *Reference Sources and Services* will also be added to the offerings.

## **Learning From Experience**

It was immediately apparent from the first Distance Learning teaching experience there was a need for a way of threading discussions around a topic, course notes and posting visuals/graphics for the class to see. Words were fine, but some concepts are easier to understand when visualized.

A traditional syllabus with more detail was also needed along with "**Course Guidelines and Instructions**," "**Class Resources**," and "**NETiquette**." (URLs these and other WebPages discussed in this paper can be found on the last page of this paper.) A way was needed to keep students on track and up-to-date with the readings, assignments and discussions. Organization, organization, organization appeared to be the only answer. Course evaluations indicated that students appreciate well organized WebPage syllabus, course schedule, and course notes.

Buffalo's first Distance Learning course was a 24/7 experience. It was literally open participation seven days a week for twenty-four hours per day for fifteen weeks. Thereafter, specific days were set aside when instruction started and stopped so both the professor and students could conduct a normal life and work on other projects. It was strongly felt that sometimes Distance Learning students just needed to rest and have time to think as in any other course on campus.

More detailed instructions needed to be developed for the guest academic librarians working with the Academic and Research Libraries course so they had a better idea of their role, and the time required to work with the class. Many academic librarians were unprepared for the volume of discussion that would take place on any one day. Some academic librarians became frustrated and stopped participating with the class because it was clear they could not keep up with the volume of discussion, and confusion created by working on a listserv. Obviously, very special academic librarians needed to be identified.

A better system for posting lecture notes and controlling discussion topics/ threads was needed on a delivery system other than a listserv. Listservs are limited since visuals cannot be posted and notes with color, underlining, highlighting and italics are lost when posted, let alone the lack of threading various topics under discussion.

The next year the *Academic and Research Libraries* course never met on campus and was only offered using a WebBulletinBoard (WBB) which allowed me to do everything I could do with a listserv, and more. It was possible to link threads of discussion and post images from files and other WebPages so students could simply click and go immediately to those WebPages without having to type in URLs addresses. Students the second year participated from Poland, Germany and California in the States. Many students scattered around New York State took the course as well as those on the Buffalo campus.

The **WebBulletinBoard** originally came from **Matt's Script Archive, Inc.** Matt's is a freeware

program that is available for anyone to download and use. A quick look at my WebBulletinBoard and one can hardly recognize it from the example posted at Matt's. Many modifications have been made to make it more user friendly. Even more importantly, this WebBulletinBoard has never failed to properly function once since it was installed.

The WebBulletinBoard provides access to discussion archives when the class is not in session. Those students who miss course notes or a discussion session, can read the course archives for that week after the WebBulletinBoard closes or later in the semester. The archives appear similar to the discussion except they cannot be altered or added to once archived.

### **Refinement, Refinement, Refinement**

In recent years the WebBulletinBoard was refined even more based on suggestions made by the students. In addition, original RealAudio clips can now be attached to course notes on the WebBulletinBoard. Students can hear short audio tapes created for their class. I tested live video transmission over the Internet and rejected using it now because of the image quality. It was decided to create Write-On CD-ROMs for some classes. Specially prepared long video presentations were placed on CD- ROMs and mailed to students in some classes for viewing.

"Class Lists" and "Grade Sheets" were initially linked to each Internet course WebPage so students had the names of their classmates along with e-mail addresses. Having an accessible Grade Sheet for each course helped students scattered throughout the world know immediately after projects were graded just how well they had done. This initial effort of posting a Class List and Grade Sheet was dropped because of time required to keep the lists up-to-date. New advances in technology are being contemplated for a faster way of record keeping. Now the University at Buffalo has purchased the Distance Learning and student record keeping program Blackboard, so I use its grade sheet and classlist for e-mail. Most assignments are sent by postal mail, graded, and returned with written comments and a grade.

**Formal Course Evaluations** required by the School were developed electronically and now can be posted near the end of each semester, filled out and returned electronically directly to the Department Office while protecting student anonymity. The same evaluation form used on campus is employed for Distance Learning courses although not all the questions are applicable. It was felt that this would be the only way to compare on-campus classroom with Distance Learning courses.

A **weekly electronic course evaluation** form was developed which lets one post it at will and have responses returned directly to the professor. This allows immediate course corrections, and revisions based on student responses.

A **Chat Room** was setup for scheduled Office Hours where students both on and off campus could contact the professor and receive immediate responses to questions. The first Chat Room for Office Hours was extremely difficult to communicate on when more than four people participated at a time. A new Chat Room has been developed that allows several conversations at a time to flow more

smoothly.

One unforeseen dilemma with the Chat Room was using the words "Chat Room." Some students viewed it as such and tended to address topics other than those related to the course. This would have been fine except on busy evenings when several students were asking academically related questions I was being asked about the weather in Buffalo. This problem was resolved by removing the words Chat Room and replacing them with "Office Hours." The old Chat Room is called a **Student Discussion Room** and is open 24/7 just for students to use when they want to talk to one another or in small groups regarding class related projects.

Access to library **Class Resources** is critical for distance learning students. Indeed, they must avail themselves of large research libraries as well, but Internet access to OPACs, and research tools give students additional resources found on a campus offering MLS courses which are often not found in other comprehensive library collections. The on-line library resources available to students are extensive and expanding as new sites are developed and identified. Even as library students, time is critical and such Class Resource WebSites are simply offered as a means of assistance.

Students needed a way of getting to know one another should they have that desire. I suggested each student post a biographical sketch. Several students initially declined, preferring anonymity. Now it is a course requirement. In addition, each student is asked to post something unique about him or herself. Such a practice helps, but still most of the students on campus tend to work with other on-campus students when group project options are available.

With each new technology or resource added to the Distance Learning at Buffalo the effort has always been made to give me control over the technology. I can open, close, and archive my own WebBulletinBoards, open and close the Student Discussion Room and post everything from images to audio clips without assistance from support staff. This, it was felt, puts me in control and allows technical support staff to be working on other critical projects instead of monitoring courses and removing or adding content.

Distance Learning technology should never be allowed to move ahead of instructional design which must always be in the hands of the professor. Technology should never be a distraction. Control of the technology allows for the teachable moment. Depending totally on technical support staff can not only be a teaching distraction, but a learning distraction. For example, if a group of students need to get together for a discussion on a project, they can be assigned a specified time that will be assigned to them just for their use.

## **Special Distance Learning and Teaching Issues**

Several issues have not been perfected or worked out to my satisfaction. The problems of testing students over course content have not been totally resolved, but those details will be worked out in time. I have posted both highly theoretical essay and multiple choice examinations over the Internet with some degree of success. Strict time constraints are used forcing students to answer and return

their e-mail responses within a specified time. Such rigid time constraints force students to rely on what they have learned instead of course notes, textbooks or someone else to answer their exam questions.

Students near the University at Buffalo could come to campus and sit for their examination. Proctors could be identified to administer examinations for students in distant locations. However, neither of the latter two possibilities have been used because it was felt all students should be administered examinations in the same manner and under the same conditions. Some of the commercial software packaged programs have testing components as part of the package. However, some of them have not been refined. Also, today's library school students need to have the full experience of Distance Learning since many of them will be working with Distance Learners in their library career.

Another issue is student access to a major research library with holdings in the library and information course subject field. Nearly all courses require the examination of journals on the topic under study, research papers and extensive readings. Professional electronic journals are linked to the WebPage of each syllabus, but they are still being developed and limited in scope. No total satisfactory solution to this problem has been worked out to date. The University library is expanding its on-line indexes, and facsimile resources so students can actually identify, find and read journals from their home computers. Interestingly though, Distance Learning students in the Management, Marketing, and Intellectual Freedom courses have tended to identify and use literature from other disciplines, and seem to put more extensive thought in their papers. This has made for a much richer class discussion as well.

Isolation was a major problem for me the first two years teaching Distance Learning courses. I was constantly searching for other professors who were teaching Distance Learning courses using a similar delivery system. My first contact was with a psychology professor, ironically, who was on a campus just two hundred miles from Buffalo. She shared common successes and problems that helped me feel better about my efforts. Today there is a small group of professors at the University at Buffalo who meet and share experiences. I have also traveled several times at my own expense to visit other campuses in distant states just to see firsthand how other professors deliver Distance Learning courses. I have always found ideas that are worth considering along with some practices I would never consider. For example, one professor posted course notes on the WebBulletinBoard but never personally interacted with the students.

Like classroom teaching, every Distance Learning Internet course is different in its delivery method and presentation style. As I previously indicated, in my Academic and Research Libraries course nearly thirty-five academic librarians from throughout the United States and the Caribbean share with and instruct the students.

My *Intellectual Freedom* course uses a Socratic teaching method of asking questions followed by answers and more questions.

The *Marketing* course requires an extensive number of graphics along with lecture notes and nearly constant interaction with individual students regarding their needs assessment research studies.

The *Management* course relies extensively on my course notes and the textbook to stimulate WebBulletinBoard discussion. I like to challenge students in this course to force them to develop a strong rationale for the positions they take on critical management issues.

Most of the *Non-Book* course content is a combination of my course notes with imbedded images. The content is usually new to students so there is little discussion, but many questions.

No one learning mode is correct for either Distance Learning or campus courses. Each professor must carefully examine the course content, his or her teaching style, and make it a part of the delivery of instruction in Distance Learning. There is just as much opportunity for variety and individualized tailoring of instructional style in Distance Learning as in the classroom.

Effective Internet teaching requires an inordinate amount of time, massive amounts of stamina, perseverance, imagination, a willingness to learn from experience, and someone who is sensitive to various cultures. Nothing can be set in concrete, and what works in one course during one semester may not work in the same course the next time it is taught. Classes and technology change. The delivery of instruction also changes. Good teaching is good teaching, whether delivery is live in a classroom or via Distance Learning over the Internet.

## **Research Results**

During the summer of 1997, an unpublished study was conducted by a Ph.D. student from the University at Buffalo's School of Education. The purpose of this study was to determine the student attitude toward my two previously taught Internet MLS courses were to Distance Learning. Eighty-three percent of the students in one class and 90% in the other class indicated that they would take another Internet course. Given all the problems with organizing and delivering the content over listservs, these results showed a high degree of satisfaction by the students. One can only guess what the positive response rate would be today from students working on WebBulletinBoards. Students surveyed in both courses taught over the listserv indicated their time was used more efficiently. This may be one of the greatest benefits of Distance Learning. Asynchronous courses permit students more flexibility and efficiency regardless if they are on or off campus.

Another Ph.D. student from Buffalo's School of Education mapped the context of discussions during one week of my *Management of Libraries and Information Agencies* course. This study was to determine to what extent I initiated and participated in class discussions. During the week of the study a total of 186 messages on nineteen different topics were posted. Sixteen topics I initiated. I posted sixty-nine (37%) responses to student initiated comments and received fifty-eight replies. Thus, I was directly involved in sixty-eight percent of the messages on the WebBulletinBoard for that week. Over the period of the course, from August 1998 to December 1998, a total of 1,858 messages were posted. Little can be drawn from the results of this study, but it does provide a limited picture of professor directed discussions.

During the Spring Semester of 2002 I taught the *Library Management* course simultaneously to a

group of twenty-seven students on the University at Buffalo campus, via interactive video transmission to three students on a community college campus approximately thirty miles away, and over the Internet to twenty-nine students. The purpose of this unpublished study by Dawn Walton and myself was to determine what factors most influenced a student's choice to take a course by one of the three methods offered. Students determined on their own which of the instructional methods they would receive. A survey instrument was designed to collect data from students for this study. Forty-nine students returned the survey. The most meaningful differences between the classroom/interactive video and Internet students were:

There was a difference of 16.6 miles between how far the Internet students lived from the University at Buffalo campus (37.2 miles) and the distance that classroom students commute to campus (20.6 miles).

There was a difference of 12.1 hours between the number of hours Internet students work (29.8 hours/week) at jobs per week and classroom students (17.7 hours/week) work per week.

There was a difference of 23% between the average number of married students taking the course over the Internet (52%) and the average number of married students in the classroom (29%).

Only one test of significance was applied to the data. The results show a statistically significant difference on the final examination between the classroom students (73.73 mean) and the Internet students (79.34 mean) using a t-test.

A summary of the major findings show students taking the course over the Internet live further from campus, have jobs requiring them to work more hours per week, were more often married, and scored slightly higher on the course final examination than students taking the course in a classroom.

### **More Students or More Efficient?**

Administrators often see Distance Learning as a means of bringing many new students into their programs that translate into money for their campuses. They often see Distance Learning as a chance for professors to do more, quicker, and with less money. Yet, very few new students have been attracted to Distance Learning courses. The Library and Information Studies program at Buffalo has experienced less than five percent of the students in any given courses who are taking it under Special Student (students not in Buffalo's formal degree program) status. There is no question this small percentage would go up significantly if Buffalo offered the complete MLS degree over the Internet.

A piece in the March 27, 1998 **Chronicle of Higher Education** states, "In the State University of New York's online program, 80% of the participants are full or part-time students living on a SUNY campus, and at Arizona State University, only 3% of the distance education students live in another states."

What most university administrators have failed to understand is that Distance Learning is not an easy task for either the student or professor. Quality learning requires a major effort. Distance Learning is a convenient delivery system, which is attractive to both students on and off campus, but "quality learning" is still the goal.

### **Sample Marketing Course Content**

The *Marketing of Information Services* course covers four major topics over twelve weeks. The first of which is **Marketing** (Needs Assessment). This topic covers the actual methodology used to determine the needs of a given segment of the population, methods of designing survey instruments, drawing samples, analyzing data, and the presentation of findings. Students actually design a study, develop a methodology, draw a sample population, survey that population, and present their findings in a formal report. The second topic of the course focuses one week on **Merchandising**. These are activities undertaken to ensure a product is available to its target consumers and prominently visible. This topic includes the display of library products, appealing environments, attractive and creative displays, interesting arrangements and displays on shelving. The third major part of the course is an intensive presentation of **Public Relations** for a period of five weeks. The content covers everything from preparing radio and television spots, public service announcements, designing newsletters, brochures, lettering, internal library audits, internal communications and other public relations vehicles. The presentation of the philosophy, purpose, definitions, and library advocacy are extensively covered as well. The final major topic covered in the course is **Packaging Information** for one week. It covers the identifying, selecting, organizing, creating and disseminating packaged information, enrichment, entertainment or educational materials based upon request and tailor it to meet the client's specified needs in a format ready to use with full credit and possibly pay going to the creator / information provider.

### **Sample Management Course Content**

The *Management of Libraries and Information Agencies* course uses Stueart and Moran textbook, **Library Information Center Management**<sup>2</sup>. This outstanding textbook serves as the framework for the course. Students read assigned chapters over a twelve-week period, along with detailed course notes posted on the course WebBulletinBoard. The course notes enhance some topics briefly covered in the textbook and give detailed coverage of still other topics that are not mentioned. Some of the major topics addressed in detail are:

- Philosophy of Librarianship
- The Change Process
- The Management Process
- Preparation of Annual Reports
- Grant Writing
- Fundraising, Managing the Manager

Listening  
Meetings  
Proactive Librarianship  
Resumes, Job Searching and Hiring  
Volunteers  
Performance Evaluation  
Boards, Trustees, and Advisory Committees  
Diversity  
Peer Conflict  
Budgeting  
Library Evaluation

## **Advantages Of Internet Teaching**

The greatest advantage of offering Distance Learning is providing quality education to students who truly live a long distance from the campus.

Guests librarians from throughout the world can easily participate in class discussions.

Students from distant locations often bring new perspectives to learning and the education process.

Distance Learning courses have the potential to be better organized than on-campus classroom courses.

Once a Distance Learning course has been developed and delivered, updating the content and refining the notes is all that is required.

Archived class notes and discussions are available for review by the students.

Final course and weekly evaluations do not take-up class time, and provide immediate feedback.

There appears to be more opportunity for extensive class discussions.

Working on a WebBulletinBoard encourages more thoughtful class participation and discussions.

The delivery of courses can be from anywhere there is an Internet link. I taught the Marketing course while a Fulbright Professor in Trinidad and Tobago.

Time is not wasted traveling to and from campus for classes.

Distance Learning classes seems to have more diverse student populations.

On-line Office Hours, discussions and group meetings seem to attract more students.

A more multi-media approach to teaching-learning is often used in Distance Learning classes.

Students feel that they know their professors better in Distance Learning classes.

Students often seem to never stop communicating with the professor because the learning process in Distance Learning classes approximates their personal communication methods.

It is easy to link additional WWW sites and resources to class notes and discussions.

Experience taking courses via Distance Learning helps future librarians relate to library users who are taking similar classes.

Although Distance Learning is often in the form of a group presentation of course notes, the responses are individual in the form of a professor- student tutorials. Everyone is required to read the notes, but not everyone will read the professor's responses to each individual student. The professor can put several asterisks (\*\*\*\*\*) on the subject line to indicate that this response should be read by everyone.

Professors can retain the ownership of course content.

Extensive use of scanned images, audio clips, video clips, and links to resources on the WWW can be embedded in the course notes.

Students feel less intimidated to express their opinions.

## **Disadvantages Of Internet Teaching**

Teaching over the Internet creates a problem often not found in the classroom. It is so easy to link additional readings to a course when teaching over the Internet. This can be wonderful for the professor, but can become a major problem for students who plan their week only to learn that additional readings have been added at the last minute. An additional reading from time-to-time is fine, but constant additions may create many more problems for students than necessary and demonstrate a lack of empathy on the part the professor.

Sometimes in the heat of Distance Learning discussions students will say things they would never say in a campus classroom. A comment like, "that is the dumbest thing I have ever heard" or "what a stupid thing to say" has been known to enter discussions. Distance Learning professors should be prepared since sometimes such comments will be made about their contributions.

Lack of support from colleagues. Only when one's colleagues have taught or been involved in

Distance Learning will they appreciate the effort required to create and deliver such courses.

Lack of basic understanding of what Distance Learning can offer by both colleagues and some students.

Lack of adequate support from the department and campus.

There is usually not enough initial time to prepare a Distance Learning course.

There is usually not enough time and energy required to respond properly to the large volume of messages required in Distance Learning courses.

Limitation of specifically designed Distance Learning technology available. Most of what is available was designed for the management of campus student records with an add-on component for Distance Learning.

Often there are limited or no Teaching Assistants for Distance Learning courses.

Limited or no additional pay available for Distance Learning courses.

More techniques are needed for motivating students taking Distance Learning courses.

The volume of typing required can be enormous.

The volume of communication on some days and in some courses can be overwhelming for both the students and professors.

There can be a problem of mixed messages with courses over the Internet.

Communication among students should be encouraged, but can be an added burden for the professor when they discuss and debate critical issues that can be taken personally.

Limited number of true Distance Learning students.

Time required for marking student assignments is greater because of opening, marking and returning mailed assignments or downloading, marking and returning assignments.

Complexity of evaluating student assignments.

## **Techniques to Help Improve Teaching and Class Participation**

As in the classroom, some students do not always read the syllabus/ assignments carefully. A few will wait to be told every detail while others are eager to move ahead independently. It is not a bad idea to include a hidden message in the class notes occasionally. Require the students

who find the hidden message to respond in a specified period of time to your personal e-mail account for their reward. The reward can be bonus points in the course. Hidden messages in course notes tells the professor if the students are keeping up on their readings or being overloaded with readings.

Students should be required to bring something other than their opinions to the WebBulletinBoard discussions, or they tend to check-in, but add little or nothing to the discussion, and check out. Then the professor never hears from them until the next week. These students operate the same as in the classroom by raising their hand and saying very little while taking up valuable class time. It is wise to require each class participant, occasionally, to bring current research to specific discussions. This contribution can be made in the form of quotations that support their ideas, citations of critical works on the topic, or URL links of value to the discussion. This type of requirement rigidly held in courses will limit discussions, so it should be an infrequent requirement.

Being brief, clear and on the subject is critical when having an important discussion on a WebBulletinBoard. Some students will take paragraphs to make a point when a well-written sentence works and requires much less time to read. This can be the most difficult aspect of teaching Distance Learning students since good professors want students to be expressive and still not discourage their future participation.

It is almost impossible to read every contribution on an active WebBulletinBoard. Consider requiring a double \*\* on the "Subject Line" for significant contributions made by students who want to verify the professor reads their important contributions. This technique assures students you will read their contributions while helping to reduce the number of messages one is required to read.

Counting student contributions can be done electronically on most WebBulletinBoards. However, this process can be very destructive to learning in that students soon learn to "check-in" without making important contributions, but with assurance their contribution will be counted. Counting should only be used to learn who is not participating so the professor can work on encouraging those students to become more involved.

Quality synchronous technology so professors can hold some live sessions with Distance Learning classes. There should be assigned blocks of time when synchronous activities can take place. No other courses should be offered during these blocks of time.

Asterisks (\*\*\*\*) on important notes, responses, and e-mail messages help focus both the students and professor's attention on critical topics.

Asking thoughtful questions helps increase student participation as well as focus students on important course content.

Limiting hours the WebBulletinBoard is open to students.

Having student WebMasters create WebPages and comment on assignments.

Timed examinations can be used successfully over the Internet.

## **A Final Word**

It is critical for professors to continue evaluating the attitudes of previous students to determine the value of the Distance Learning experience. Without question, we must continue teaching Distance Learning courses so we can acquire the knowledge base necessary to refine the process and to assure quality instruction despite the current limitation on delivery methods. Technology is changing and offering many new options for Distance Learning professors, but it is our job to determine what is best for our students and programs. Ultimate accountability rests with us, so we must drive the technology and determine the proper content. Currently, technology is getting ahead of instructional design. The professors should not lose sight of the content and design of the course material.

The two professors at Buffalo who are currently offering Distance Learning courses over the Internet have not received extensive formal or informal education in computer technology. Both, it could be safely said, are near the bottom of the technology curve. However, limited knowledge in technology has not been a factor in keeping them from teaching Distance Learning courses, or teaching such courses effectively. Also, professors with extensive technology backgrounds are not more inclined toward teaching Distance Learning courses anymore than other professors.

It takes more than expensive studios, delivery systems and support staff to make quality Distance Learning work. Some administrators are beginning to realize that quality is still in the hands of the person who delivers the instruction. Quality teaching is not guaranteed with the purchase of the latest technology or fancy studios. Building facility and delivery systems around the needs of those willing to develop Distance Learning are more critical than attempting to plug professors into available facilities and technology. In the long run, it may also be much cheaper for the institution.

Good instruction either in the classroom or via some method of Distance Learning must meet the learning objectives ... pure and simple. All forms of education have diverse audiences and kinds of learning quirks and styles. Distance Learning does not resolve this issue. If anything, it brings out the learning diversities. It is the course design of the Distance Learning material that is key to learning.

A new book edited by Daniel Barron was published in 2003 that details Distance Learning in library and information studies in North America<sup>3</sup>.

**The following are WebPages noted in this paper:**

**Ellison's WebPage**

<http://www.sis.buffalo.edu/faculty/ellison/ellison.html>

## **Ellison's WebBulletinBoard**

<http://www.informatics.buffalo.edu/scripts/sis/ellison/control/enter.htm>

## **Matt's Script Archive, Inc.**

<http://www.scriptarchive.com/>

## **Course Guidelines**

<http://www.sis.buffalo.edu/faculty/ellison/Syllabi/guidelines/guidelines.html>

## **Student Course Evaluation Form**

<http://www.informatics.buffalo.edu/resources/evaluation/asp/eval.asp>

## **Student Weekly Course Evaluation Form**

<http://www.informatics.buffalo.edu/scripts/sis/ellison/eval/student/eval.html>

## **WBB NETiquette**

<http://www.sis.buffalo.edu/faculty/ellison/Syllabi/guidelines/wbbnet.html>

## **Chat Room**

<http://www.sis.buffalo.edu/scripts/sis/ellison/discussion/discussion.pl>

## Class Resources

<http://www.informatics.buffalo.edu/faculty/ellison/resources.html>

<sup>1</sup>Gene T. Sherron. "In Support of Distance Learning," Syllabus. March 1998, p. 47

<sup>2</sup>Stueart, Robert D. and Barbara B. Moran. Library and Information Center Management, Libraries Unlimited. 494 pps., 2002.

<sup>3</sup>Barron, Daniel D., ed. Benchmarks in Distance Education: The LIS Experience. Libraries Unlimited. 381 pps., 2003.

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# Class Resources

*Updated 9/11/00*

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## What is Distance Learning?

"Learning that takes place via electronic media linking instructors and students who are not together in a classroom ."

*--[WWWebster Dictionary](#)*

"In the Industrial Age, we went to school. In the Communication Age, schools will come to us."

*- - from the masthead of [The Online Chronicle of Distance Education Communication](#)*

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