Delivering "Legal Aspects of Industry" on the Internet (Experiential Account and Observation)

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Introduction

The spring semester 1998 was Central Missouri State University's (CMSU) initial course offering of Mf&C 5015 "Legal Aspects of Industry" using the Internet. The course has now completed our fourth offering since its creation. The course was designed to provide a basic overview of the law and methods of legal research for graduate students in fields of applied science and technology. The course also gained approval as a required course in the "General Technology Core" of courses for the recently approved Doctorate of Philosophy (Ph.D.) in Technology Management. The Ph.D. in Technology Management is offered through Indiana State University and delivered by a partnership of seven universities making up the Consortium for Doctoral Studies in Technology.1 The primary delivery mechanism for consortium courses is web-based technology. To find out more about this program please refer to the web site: http://web.indstate.edu/distance/techm.html or http://web.indstate.edu/ConsortPhD/.

Background

We were responsible for the design, content, and implementation of the curricula for web-based delivery, communications, and assessment of our course. To gain experience in the new communications technologies and pedagogy of asynchronous education "anytime-anyplace," we pursued this as a pilot or "beta" course, with the following goals:

1. To identify opportunities in which the delivery system and technology tools added value for students or enhanced their learning experience in ways different from the traditional "same time-same place" classroom model. Specifically, we wanted to discover if these new technologies and tools were effective in assisting or promoting research, learning, and collaboration in project work done by students taking this course from diverse geographic locations.
2. To identify sufficient substantive legal information that was available on the Internet. After the initial offering of this course, it was determined that this legal material needed to be incorporated into Blackboard/CourseInfo delivery tools. We found that the location of Internet information was unreliable from semester to semester. We had to find ways to overcome this problem. Blackboard supplies the following general areas for posting course documentation: Announcements, Staff Information, Course Documents, Assignments, Communications, External Links, and Student Tools. Multiple folders and documents can be posted in each of these areas.
3. To provide a learning experience that translated into lifetime learning skills in the law, as well as in communications and educational technologies.

We faced a number of course challenges and constraints. First, the instructors and the students had limited experience and training in the new delivery technologies and the pedagogy of asynchronous education, and second, CMSU was beginning to develop technology support systems for the students and faculty through the newly created Center for Academic Technology (CAT). These resources were new and limited when we began this undertaking. Many gains have been realized in this area including Extended Campus assistance in enrollment and communication, an 800 number for the campus "help desk," and standardization of Blackboard/CourseInfo as the base university tool for organizing course delivery. Third, we were unaware of the extent and availability of legal content on the Internet; it was difficult to ascertain content accuracy, currency, and appropriateness. A self-imposed constraint was to design the course so that the only technology requirements for our students were Internet access and a working email address. We worked hard to ensure that the students, as a result of the course design, would not incur additional costs beyond these software/hardware requirements. Since the initial offering in 1998, it has been necessary to add a required textbook and law dictionary because of the unreliable and transient nature of materials available on the web. Even the textbook website has changed its URL twice.

An interesting caveat was that we knew the enrolled students had the skills and intelligence to be successful in a nontraditional classroom setting before enrolling in the course. This is a tremendous advantage; graduate students are usually highly motivated, self-directed learners, and anxious to be part of emerging technologies. Perhaps the biggest challenge to the faculty was ensuring that the technology and delivery method would never become an obstacle to student success. This has been a continuous and ongoing challenge over the last three years. Time has been our best ally due to the rapid improvements in everything from basic access to communications and file management.

Methodology

Instructor's Explorations

Preparation for this course began in July 1997, approximately six months before the course was first delivered in the spring of 1998. Early preparation

involved extensive time searching, surfing, and browsing the web on two major topics: (a) the law and applications in industry and (b) distance education and Internet delivery systems/software. Both Internet Explorer and Netscape Navigator were utilized. The idea was for the instructors to experience the learning curve the students would undergo while utilizing the Internet technology. Even in today's offering this has proven to be an informative exercise but no longer is a focus of the course.

Extensive time was also spent experimenting with several email packages. CMSU utilizes Groupwise for faculty email. While Groupwise has many powerful features for organization and email handling, it was found to be a clumsy and time-consuming package for course communications. Later offerings of the course utilized Blackboard's email communications tools because of the ease of integration with student information. It was anticipated that most students would utilize a variety of email providers and software including Outlook, Outlook Express, Eudora, Hotmail, or a browser email utility. All these technologies have the ability to attach a file prepared by a word processor, which was the original way students would submit all class assignments. Current course offerings utilize Blackboard/CourseInfo to manage student email information, and all students submit their assignments utilizing the student drop box included in the communications tools. Email attachments are used as a backup to this system. It is very important that each student verify the information supplied to Blackboard/CourseInfo to make sure the information is correct. The email account information is especially critical because the instructor tools included in Blackboard/CourseInfo will utilize this as the primary point of contact. The instructors use Microsoft Office as the default format for all student submissions. This allows the instructor to read all submitted files.

Prior to the initial course offering, interviews were conducted with CMSU faculty experienced in utilizing computers, email, and the web to assist in course delivery. Some faculty had course web sites containing course syllabi, staff resumes, assignments, lecture notes, and handouts for downloading or printing. Some sites also contained reading lists and "external links" to web sites for further reading. One instructor was utilizing email in a "correspondence course mode" to make assignments and receive student work. All had regularly scheduled course times to meet face-to-face with the students. For these other courses, the technology was only utilized to supplement the traditional in-class activities. Some instructors developed or used computer-aided self-instructional programs available in the computing labs. Many of these courses contained self-testing components with multiple assessment feedback methods. No utilization of interactive online technology or testing through the Internet was encountered during this research phase during 1997-98.

The instructor's research and readings into the subjects of asynchronous teaching, online delivery, and computer-assisted/web-based training (WBT) was informative. Books on these subjects are outdated by the time they get to the shelf. The web is the best source, but several professional and trade journals are also helpful. The Chronicle of Higher Education at http://www.chronicle.com/infotech/, T.H.E. Journal (Technology in Higher Education) at http://www.thejournal.com/, Syllabus Magazine at http://www.syllabus.com/, and Training Magazine at http://trainings.website.com/ provide both printed and electronic versions with useful articles and links. Research, reading, and interviews were supplemented by attending "Delivering Online Courses" in the fall of 1997 in Phoenix, Arizona, presented by the College Board, Office of Adult Learning Services. The opportunity to listen and speak to practitioners pushing the envelope of technology and online education proved extremely valuable.

Challenges and Accomplishments in Course Development

Numerous publications address guidelines and issues in course development for distance and web-based learning. Below is a partial list of materials that should be supplied to all course developers. These documents form a critical foundation for future policy development, assessment criterion, and material development.

- Draft Principles of Good Practice for Distance Learning (adopted by the Coordinating Board for Higher Education, April 13, 2000 - Missouri Department of Higher Education): http://www.mocbhe.gov/acadafrs/prindis.htm
- Quality On the Line: Benchmarks for Success in Internet-Based Distance Education (PDF Download - U.S. Department of Education): http://www.ihep.com/quality.pdf
- NCES Report: Distance Education at Postsecondary Education Institutions 1997-98 (PDF Download - U.S. Department of Education): http://nces.ed.gov/pubs2000/2000013.pdf
- Core Academic Values, Quality, and Regional Accreditation: The Challenge of Distance Learning (Judith S. Eaton, Council for Higher Education Accreditation [CHEA]): http://www.chea.org/Commentary/core-values.cfm
- Principles of Good Practice for Alternative and External Degree Programs for Adults (prepared by task force of the American Council on Education): http://www.ahea.org/pogp.htm

Extensive new course development is required to duplicate the rigors of a traditionally presented curriculum. Institutions have the responsibility to establish standards and encourage academic integrity through distance learning equivalent to courses offered in a traditional campus-based environment. It should be the faculty's intent to work with this belief as a basic guideline. Early in the development

process it was decided that the role of the instructor was that of facilitator and guide, with the foundation of the course design centering on the course syllabus. Course learning objectives were specifically matched to student work assignments. Identification of student "deliverables" stressed the important items required for submission and assessment. Two categories of deliverables were utilized: The individual student work consisted of (a) exercises/ readings, case briefs, and journal reviews, and (b) a term research paper.

Over the past three years, three additional deliverables have been incorporated. First, the instructor-directed "virtual chat" requires students to submit a minimum of two questions that address the chapter reading assignment prior to each weekly scheduled chat sessions. Second, group work consists of preparing legal subject outlines in four distinct legal areas of interest to industry and related case briefs. The exercises centered primarily on finding legal sites on the web, summarizing the contents, and sharing these sites with the rest of the class. Readings directed students to web sites identified by the instructor that contained relative, substantive content. Preparing case briefs required the students to search the Internet, locate relevant legal cases, and prepare summary briefs in a standardized format that would link back to the source document's Internet address (URL), which would contain the full text. Third, journal article reviews were submitted from reputable online journal sources, with summaries (also linked) prepared in a standard format.

To qualify as acceptable, a legal case or journal article must contain an industry player (company, corporation, or industry group) as a party to some legal action or issue. Journal readings keep the content applied and current. The links provided anyone electronically viewing the brief or journal (with Internet access and a browser) the opportunity to immediately read the source document. All prepared work is submitted to the instructors through email as attached files. Because of the mercuric tendencies of new URL links it was suggested that students obtain hard copies of those articles applicable to their company or business interests.

The first two online course sessions consisted of achieving the following objectives: (a) defining administrative course guidelines and responsibilities (i.e., how to get passwords to protected areas, how to contact the instructor, how to access and submit assignments); (b) updating personal information for each student, their course expectations, hardware and software they would be using, self-assessment of their experience and proficiency with the technology; (c) introducing exercises, such as searches for specific legal topics and sites; and (d) submitting results. These sessions were used to evaluate student competency with the web and email, evaluate their responsiveness to instructions, and assist in gaining the skills and confidence to progress successfully in the course.

The next six course sessions incorporated the use of large-group virtual chats on specific topics in the textbook and also introduced the format for submitting assignments such as legal outlines, case briefs, and news journals. To explore the possibilities of group collaboration, students were placed into teams, using Blackboard's group options, to research and explore four areas of the law: contracts, property, torts, and constitutional law. The next four sessions required the teams to collaborate using Internet tools to develop and submit a team meeting schedule and minutes of each meeting and to deliver a presentation with supporting materials on the one of the above topics. The last course meetings involved the review of presentations using virtual chats and the thread discussion forum, the submission of an individual term paper on a legal topic selected by the student, and a final online written assessment.

What We Learned and Our Conclusions

Individual and peer assessment was utilized to determine student compliance with course objectives and their ability to use the technology to find relevant information. The instructional coordinator handled the collection and general format issues while the subject matter specialist evaluated written work for content. Group work was shared with the other groups, with the best group product setting the standard for evaluation. A three-person team, the lead instructor, subject matter specialist instructor, and the course facilitator, assessed 47 research papers.

Communications Technology Tools

Blackboard/CourseInfo's components supported the necessary communications. The software includes areas for posting announcements, information, documents, assignments, assessment, and external links. Four different communications techniques are included: individual email, group email, threaded discussion forums, and virtual classroom chats. One other area of communication incorporates a number of student tools for checking grades, a digital drop box to the instructor, tutorials, daily schedule, and personal administrator. CourseInfo was set up as a class meeting place where information, questions, and answers could be shared between and among students. A textbook and accompanying transparencies were used to direct the weekly virtual chat sessions. Some specific areas were established for each of the major legal topics and for each "cyberteam" project. Group pages and group virtual classrooms were created and incorporated for use by these teams. Email was utilized among the students to exchange collaborated outlines or to just communicate with each other more privately than through CourseInfo. The instructor required students to submit all assignments via the digital drop box. Questions could be submitted via email, and the instructor would reply to the requesting student or to the entire class if the issue applied to all students or teams.

Delivering and Administering the Course Today (2001)

CMSU and its technical staff support Blackboard/CourseInfo. The staff maintains the server hardware and software. Recently, 47 students enrolled in two sections of the course with the entire group being off-site. The classes contained an equal mix of master's degree and doctoral degree students. Three instructors facilitated the classes: the lead instructor handled the setup and administration of the coursework with CourseInfo, the subject matter specialist directed all content discussion, and the course facilitator kept up with the daily communications and problem solving.

The instructors used software such as Microsoft Office 2000, Front Page 2000, and Allaires Cold Fusion for creating and saving the content in a format that facilitated web site content and activities. Blackboard/CourseInfo is designed with a public side and a restricted side for the instructor. The public side displays the different components to students while the restricted side is only for instructor access, which requires a password and user name.

Daily tasks for the instructors involved logging assignments deposited in the digital drop box, answering individual students' email questions, monitoring the course-threaded discussion forums, and taking phone calls from those students who required additional real-time contact.

Weekly tasks included meeting at a scheduled time in the virtual classroom to discuss new reading topics, responding to new threads in the discussion forum, and meeting in "cyberteams" to coordinate the group activities. The course facilitator instructor provided an outline of valuable feedback from the students as the course proceeded.

Some Problems and Solutions

Just as in the traditional classroom, not all things go as planned, and we offer three examples:

Problem 1: The course had just begun and it was apparent through early assessment modules that some of the students possessed insufficient skills to use the Internet and email. One of the course objectives was to ensure that the technology did not become an obstacle to the student's success.

Solution: Students were directed to third party, public Internet sites that contained information and instruction on the Internet skills needed. These students were also assigned to "cyberteams" whose other members were more technologically sophisticated and who were able to assist the other team members. The team leader was also made aware of the situation and monitored the students' participation closely.

Problem 2: Regularly scheduled virtual classroom chats require an alternative compliance plan as well as a standard backup plan.

Solution: Students who were not able to attend a chat were required to submit several questions via email prior to the scheduled chat event. These questions were included in the chat session and the student was responsible for reviewing the chat archives. The standard backup plan was established in case of technical failure. Students were instructed to continue with posted assignments and deposit a topic outline for that week's discussion material.

Problem 3: The course only provided for an overview of legal topics. Contract law, employee protections, securities, and even the student's specific field of interest (i.e., construction law) were covered only lightly.

Solution: The briefs contributed to the legal outlines and journal reviews allowed the student to focus on industries, companies, or issues. The term paper allowed special interests to be investigated, and each student reviewed the other students' presentations and papers, hopefully finding some topics of common interest or other usable information. The course was also designed to develop lifetime learning skills and an ability to access online legal topics. It was anticipated that skills learned and resources found would allow the student to further investigate any area of the law which was of interest. It was also hoped that these skills would contribute to becoming a more effective and better informed citizen, corporate participant, educator, or family member.

Conclusions

Not all individual teaching or learning styles are well suited to a particular delivery method, course materials, classroom, or lab setting. The same is true for asynchronous Internet delivery. In asynchronous delivery, the instructors must realize they are the university. Students in distant locations will utilize the instructor as the first point of contact, not only for course problems, but for technology questions, enrollment, administrative questions, and even academic advisement. The institution must ensure that technical and administrative support remains easily accessible to instructors.

The students and instructor must clearly understand their respective responsibilities, course time requirements, and obligations to other students. This requires developing and learning new rules of classroom engagement. Time management is one of the most important aspects of this course delivery methodology.

In the instructors' estimate, it took approximately three times the effort to develop and deliver this course as compared to traditional course delivery. Not all courses would lend themselves as easily to Internet delivery as "Legal Aspects of Industry." Law courses are notably heavy in written content, not requiring many visuals or demonstrations. Visuals would require more elaborate web site preparation by the instructor or programmer than was utilized in this course. In addition, an abundance of legal information exists and is readily accessible via the Internet. Very little original material or content was presented, except those developments that occurred in the law as it was redefined by each new court case.

Future advances in technology and pedagogy will provide more effective

means and tools to deal with the course development, delivery, and communication problems. The future will provide an assortment of tools for graphics, automation, streaming video, and interactive communication for instruction and testing. Much advancement has been seen in the creation of CourseInfo, WebCT, and E-College for course delivery. One area needing further study is in the use of software such as RealPlayer, Windows Media Player, and Quicktime for streaming media as well as Ivisit and Netmeeting for interactive video. As with the topics we teach, an educator must experience and use these technologies first hand to be current in the future. With the immense amount of information available and ease of access via the Internet, educators can no longer be merely disseminators of information, rather, they must become guides and facilitators to the development of knowledge, critical thinking, and lifetime learning skills.

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Endnotes

1. The Consortium of Doctoral Studies in Technology includes of the following university charter members: Indiana State University, Texas Southern State University, East Carolina University, Bowling Green State University, University of Wisconsin-Stout, North Carolina A&T State University, and Central Missouri State University.