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ABSTRACT

A graduate communications course in multimedia literacy uses a completely online environment to assemble faculty and curriculum resources normally unavailable in traditional classrooms. Guided by a teacher/coordinator, a librarian teaches information literacy by examining Internet copyright and fair use issues, ethics, and the evaluation of free-and fee-based materials. A Webmaster teaches World Wide Web site design principles and management for group projects, and each student creates a Web portfolio. Students and faculty offer evaluations and recommendations for the course in the future. While online courses offer access to education to those who would otherwise be unable to continue learning, the online environment offers both challenges and opportunities for educators to explore and expand teaching practices and resources. In Web-based courses, educators are forced to look outside the classroom "box." The graduate communication course in multimedia literacy at Austin Peay University (Tennessee) described in this paper began as a series of challenges. As approaches were taken to maximize Web environment opportunities, solutions began to be found. New alliances for teaching were forged in the process. (Author/MES)

Collaborating Online to Teach Information and Multimedia Literacy

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Abstract: A graduate communications course in multimedia literacy uses a completely online environment to assemble faculty and curriculum resources normally unavailable in traditional classrooms. Guided by a teacher/coordinator, a librarian teaches information literacy by examining Internet copyright and fair use issues, ethics, and the evaluation of free-and fee-based materials. A Webmaster teaches Web site design principles and management for group projects, and each student creates a Web portfolio. Students and faculty offer evaluations and recommendations for the course in the future.

While online courses offer access to education to those who would otherwise be unable to continue learning, the online environment offers both challenges and opportunities for educators to explore and expand teaching practices and resources. In Web-based courses, educators are forced to look outside the classroom "box." The graduate communication course in multimedia literacy described here began as a series of challenges. As approaches were taken to maximize Web environment opportunities, solutions began to be found. New alliances for teaching were forged in the process.

The Challenge

For those with access to multimedia laboratories, technical support, and expertise in various multimedia software programs, teaching a graduate level course in multimedia literacy would likely be a highly technical enterprise. However, teaching multimedia literacy entirely online without such technological resources demands a significantly different approach. Major issues to be dealt with include course materials, the technology limitations of working without face-to face contact with students, software issues, and the wide range of student experience in the use of technology. The following problems would need solutions if the course were going to work:

Course materials: At present, the most widely used text for multimedia literacy training basically consists of a series of detailed software tutorials appropriate for a technology lab. Our online course would have no lab; in addition, the software platform for that particular text is incompatible with the Blackboard software that would house our class. So, what course text would we use to teach?

The technology environment: The Blackboard software used to package and manage online courses at our university adds an additional layer of issues and technological

challenges and limitations. How could this online environment possibly substitute for a multimedia lab?

Course software and support: With students working from a variety of home computers, it would be impossible to choose appropriate applications software, such as FrontPage, and to provide support for students to learn as they might in a lab. What approach to teaching multimedia could we take that didn't depend on teaching or learning specific applications?

Student experience and resources: A number of students had undergraduate degrees in communications and had already completed other graduate courses, some online. Others were new to online learning and graduate courses, and one had just gotten his first computer three weeks before. How could we approach the course so that everyone would benefit educationally yet not be overwhelmed technologically?

So, the challenge for this course was: How could we teach a credible multimedia literacy course without a text, or labs, or software to students with widely diverse backgrounds and experiences both in communications and technology?

Rethinking content

We had to return to the drawing board to conceptualize a new approach to the topic. We started with a definition for our subject, multimedia literacy. Our revision began as a theoretical strategy. Later it incorporated elements we'd used in previous team-taught interdisciplinary courses as well.

Our definition for multimedia literacy, synthesized from the meanings of the words literate, visual literacy, and multimedia (Lexico LLC, 2002), became having the knowledge or competence needed to recognize and understand ideas conveyed through various media. The definition gave us a new direction. This course would be about multimedia concepts and ideas, not software tutorials and labs, an approach we believed to be more suited to a graduate level course in communications. But what kind of instructional strategies would ground students in multimedia concepts, as well as provide them with some practical experiences in which to apply the concepts? The instructional strategies used in the development of this course emerged by combining ideas from several prior experiences.

In 1994, Ted Jones, the chief instructor for this course, co-wrote an article (Turner and Jones, 1994) inspired by a then-current business concept, an idea called the virtual corporation (Bryne, Brandt, and Port,1993; Davidow and Malone, 1992). The premise was that in order to remain competitive in a market that demanded speed, quality and economy, businesses must join together to assemble the expertise they need to create viable products. This cooperation by means of communication technologies would result in a virtual corporation created to address a specific need. In such a corporation, each company would contribute its particular strengths to produce an end product. Telecommunications and information technologies would make the virtual corporation possible.

As Turner and Jones (1994) discuss, reflection on this idea led to a question and an experiment. What if the word "corporation" were replaced by the word "university?" The newly edited text included the following:

"Each university that links up with others to create a virtual university will be stripped to its essence. It will contribute only what it regards as its core competencies.... It will mix and match what it does best with the best of other universities" (p. 2).

This idea of a virtual university in which core competencies are selected and combined was the first step in the development of the course.

The second step that influenced course development derived from the communication component of an interdisciplinary writing, speaking, and researching course taught in the Heritage Program at Austin Peay State University. In this course, freshmen not only write essays on the academic disciplines, they also learn information competencies, including but not limited to library research skills. Finally, they study speaking techniques to turn their essays into speeches. Working alongside Heritage librarians, faculty learn first hand how information and information access are expanding in a dynamic way. The idea of teaching collaboratively with librarians who deal with information literacy and multimedia, Lori Buchanan and DeAnne Luck respectively, took us one step further toward this course.

Timing is everything. Lori had recently begun an information literacy initiative on campus and was looking for faculty to help her. As information literacy is important to the communication aspect of multimedia literacy, we envisioned a joint project that would teach graduate students the current critical skills they would need to access, retrieve, evaluate, and use information legally and ethically.

So much for information literacy. But how about multimedia literacy?

Working from our definition, we decided graduate students would benefit most from a broad knowledge of what works and what doesn't in multimedia environments. Given the online nature or the class, and the natural choice of the World Wide Web as our source of classroom materials, DeAnne Luck, the Austin Peay State University Library Webmaster, was the right person to teach students Web site design and construction. Through the use of materials readily available on the Web, course content could be provided within the Blackboard online environment in place of a printed text.

So, our multimedia literacy class would use the World Wide Web within an online environment to explore concepts of information and multimedia literacy. The librarians were able to distill this vision into critical readings and assignments which included threaded discussion questions, short essays, an annotated bibliography assignment, and the creation of a group Web site. During the class, students would proceed logically from locating and accessing content to the design and construction of Web sites using those resources. The course would end with a capstone project of individual student Web portfolios, an online collection of written and multimedia artifacts and supporting materials. A professor at another university agreed to lend his newly written Web portfolio text in manuscript form online for the class to reference. He also agreed to be available to critique the final Web portfolios.

Let us now examine some specifics of the information and multimedia literacy components of the class.

Information Literacy module

Using the five Association of College and Research Libraries Information Literacy Competency Standards (2000), Lori developed assignments in which students found the information needed to construct their group Web site and individual Web portfolio. Students accessed the needed content, evaluated the information, and incorporated it into their group Web site project in an ethically and legally sound manner.

Weekly overviews of the assignments were posted within Blackboard These overviews contained appropriate content readings available online via the Web, library

databases, or electronic library reserves. Both Web and print-based information were examined and compared.

Instructors created and posted threaded discussion questions, such as "How do you think creators of information content should approach their work in the future?," which prompted students to think critically about the readings. Often students referred to each others' messages when addressing the questions listed, a move that was encouraged but not required. Responses were noted and graded using the Blackboard grade management tool. Instructors posted feedback once the week's discussion ended. The feedback was a synthesis of student discussion; however, instructors also included additional points. One such point, for example, was that libraries must shift from ownership of sources to providing access to sources because information volume and cost are increasing while library funding is decreasing.

When evaluating Web sources, students considered publisher and author, information accuracy and currency, confirmation of information from a second independent source, the purpose of the Web site, approval from a watch group, and timely response to e-mail queries. In answer to the question "What has been your experience with the quality of Web-based information compared to print information sources such as journal articles and books?" students responded that Web-based information was more easily accessible, understandable and, in some cases, of comparable quality to print-based information, particularly, the Web-based library databases. However, they also observed that there was too much information of questionable accuracy on the Web.

As a final assignment for this first class module, students were to provide an annotated bibliography. Students selected three sources available via the library Web site and on the Web using the evaluative criteria covered above. The bibliography was to support the Web portfolio they would create as a final project.

Multimedia Design module

The second module of the multimedia literacy course moved from information literacy to a unit on Web design and organization. First, a series of readings and discussions taught the do's and don'ts of Web site organization, design, and management. Assignments, based on our definition of multimedia literacy, focused on planning and assessment rather than on learning HTML code. By having students use these readings to create group Web sites and individual portfolios, they practiced using information in an electronic environment rather than in completing a more traditional assignment, such as writing a research paper. What better way to learn what works and doesn't work in a Web site than by going through the process of creating a site?

To begin the Web site design project, students were assigned to groups. The purpose of the group work was to give the students more interaction with each other, provide peer assistance to those with fewer technical skills, and generate discussion and new ideas. The project started with readings on Web usability, accessibility, and information architecture principles. These readings, and the related exercises and discussion questions, challenged students to examine how they themselves use the Web. Using their own experiences and the evaluation criteria previously learned as a starting point, the students looked at the flip side: Which design and management principles create a good user experience and evaluation? Another assignment covered the importance of accessibility for all users. An exercise in viewing Web pages with a text-based browser

allowed students not only to experience the frustration of visually impaired users dealing with bad design, but it also reinforced the value, or lack thereof, of multimedia elements.. Over the next two weeks, the students defined their site's mission, audience, and content areas; read about Web site organization, structure, and navigation; and designed these elements for their site. The planning elements were all brought together into a site 'blueprint,' a somewhat graphical representation of their site's organization, navigation, content, and links. The blueprint not only emphasized the importance of organization and planning (much like an outline of a written paper), it also enabled students to better visualize the organization of other sites, making them more efficient at accessing information.

When the students finally began to create their pages, and the content to go on them, the class readings discussed what particular writing style is best suited for the Web; the current, best, and future uses of Web-specific multimedia elements; and the use of hypermedia to create new connections not available in other media.

Although technological problems plagued many groups when they created their sites, and one group had problems working together, all but one of the Web sites turned out well. The students then reviewed their peers' Web sites, using the evaluation criteria and design principles previously learned.

For the final assignment, students put together Web portfolios that included materials they had created in their academic work, professional fields, or other creative endeavors. As individual projects, the Web portfolios gave students the chance to apply the technological skills they learned from others in their group. Many took advantage of the chance to create a Web site highlighting their own interests, talents, and even a home business.

Course Evaluations

Students were given the opportunity to evaluate the course by means of both an online survey and additional written comments. The sixteen survey items covered demographic information about students (3 items), course design (4 items), content (5 items), materials (2 items), and grading (2 items). Thirteen of fourteen students answered the survey, and ten students posted additional comments. The Blackboard course software made it possible to record student participation in each of the surveys without revealing student identities. Percentages quoted combine the "strongly agree" and "agree" response options. Remaining options were "neither agree nor disagree" "disagree," and "strongly disagree."

The fourteen students in the class were widespread in their experience with online courses. While a large majority (85%) had taken communications classes before, and almost two-thirds of the class had taken graduate courses before (62%), just over half (54%) were taking their first online class.

A large percentage of students indicated they felt the class as a whole was appropriately designed for an online format (85%) and that the information literacy, Web site design and construction, and Web portfolio modules built well upon each other (69%). Most felt that having several instructors made the course a richer experience than having only one instructor (77%), although there were some concerns expressed in the written comments. Three students noted they found having three instructors "confusing" at times. "However, the different experiences and backgrounds of the instructors broadened the interpretation and ... [delivery] of the material." Another student said, "I

really enjoy having a collection of instructors. I wish that regular classes were taught that way. It truly does add to the course." Most students felt that working in groups provided interaction with other students that they would otherwise have missed in an online class; however, some expressed logistical and task assignment concerns with the group projects. Several students observed that "it is very difficult to work online with a group" while one said "I strongly feel that...putting us in groups with stronger members...really assisted...those of us who were not as [computer] literate." Another noted that "most of the work ...fell to the 'expert.'" Several suggested that the group Web site project "have a major overhaul" or be rethought, and that the final individual projects might be done first "to ensure that everyone knows the basic nuts and bolts before...[being] thrown into a group in which you will never meet the people...[C]ommunication is already difficult even without the technical knowledge barrier." Another thought the group Web project should "be limited to groups of only two because of ... time...[T]he third person was never available." One student summarized the experience by saying "I understand that the group project was meant to give the class more interaction, but it forced us to get together and meet, which kind of defeats the purpose of an online class." Another student suggestion, expressing the noted ambivalence toward working in groups, was to "have the next class create just one site, but expect more out of the site."

In considering course content, about two-thirds of the class (61%) noted that the information literacy topics integrated well with what they'd studied in other communications classes, although one noted that while "interesting and well thought out...[information literacy] could have been related better to the [course] topic and not just library issues." When asked if the approach to multimedia maximized what could be learned in an online class, students more readily agreed (77%). Students found the Web portfolio component a logical extension of what had been learned in the first two units on information literacy and multimedia design and organization (77%). "The coursework for this class led nicely to the final project. It made the final project easier to do, knowing all of the material we had covered previously." However, several students made appeals to "[b]egin reading the Web Portfolio book at the beginning of the semester. It would have been helpful in choosing our topics"...[and] building ...[the] group Web sites." Most students felt that the assignments built on each other (61%), and all agreed that the information in the class was practical (100%).

Students were also unanimous in their approval of having the materials provided online rather than by having to buy textbooks (100%), and found the online readings to be appropriate for the class (100%).

Almost all students found the assignments reasonable for a graduate level course (92%), and the grading policy of assigning points for posted essays, discussion thread responses, and Web site creation was deemed to be fair (92%).

Though not asked to evaluate the course and the teachers specifically in the survey, a number of students expressed appreciation of both in their written remarks. "I was very pleased with this online course...I know you all have worked very hard to offer this particular class and I appreciate it very much." Another said, "I have truly enjoyed this class. I was terrified at the beginning. I have overcome a great deal of fear and paranoia about technology by having this class. This class has taught me a tremendous amount about using this computer, and quite a fair amount about portfolios." Others expressed

enjoyment tempered with some frustration: "I enjoyed the class, but think there was just too much material and not enough time to really focus on each aspect."

Lessons Learned

In any new undertaking, there is always the unanticipated. As a result of our experience in this course, we have several observations and suggestions to share.

Online courses take much more time than regular courses, particularly the first time through. Not only must materials and assignments be designed and formatted for the medium, but the interaction among faculty and among faculty and students takes much more time for all concerned. A question that might be fielded in a few seconds in class may require several minutes to write as an e-mail query and response. Similarly, grade keeping can go from being a mark on a roll sheet to an entry in the online environment software. There are some advantages to this, to be sure, but learning software does require additional time.

The online environment is not like anything you're used to. Think of this, for example: Online teachers may never meet together with students, see their faces, or hear their voices; so the visual and aural feedback teachers take for granted in class is not available in the same way online. Constantly question what you're doing and how it's working. Maximize advantages and minimize disadvantages by remaining flexible and actively seeking feedback from all involved.

A uniform way of posting assignments and reading materials is of utmost importance in team-taught courses. This may sound like a no-brainer, but in a new technological environment, even small variations in doing things can cause students to miss all or part of an assignment. We found that writing all assignments in red, particularly when they were integrated into the content materials, helped to draw attention to them and clarify them for students.

To address these observations, we suggest the following:

Post readings, assignments, discussion questions no more than a week or two ahead to provide yourself the flexibility to redirect focus, if necessary.

Schedule due dates consistently, assign points for work posted on time; eliminate the opportunity for students to respond after a certain date. Regulated scheduling helps students organize their work so they remain current. We gave a Monday noon deadline for posting the previous week's assignments. However, in the future, we may move that to Wednesday morning to allow students who do class work on the weekend the opportunity to have questions to instructors answered before the submission deadline.

Finally, collaborative work is extremely beneficial to students if teachers are well matched and responsibilities well defined. In our particular case, we have worked together for a number of years to develop modules aimed at processing content, so cooperation was not an issue for this class. However, our work would have been much more difficult, if not impossible, had we not trusted and shared what we could and left each other alone to do what each of us did best.

Conclusion: As you probably know, realistic teachers are moving from being sages on stage to being guides on the side. Certainly, as instructors we did that for this course. The Internet and Web have made increasingly diverse numbers and kinds of resources available; but the responsibility of scholars is greater than ever, because the quality of resources is anything but predictable. Up-to-date information competency and research skills are more critical than ever. Fortunately, the online environment, so limited for

teaching this course in a lab tutorial context, provided the perfect opportunity for this class. Students could learn the necessary information and multimedia literacy skills online from librarians who otherwise would be limited in their ability to guide and instruct.

To conclude, here are some final quotes from the revised text on the virtual university: "The characteristics of the new university model are: excellence, opportunism, no borders, technology, and trust....The virtual university will demand a different set of skills from all managers....They will have to build relationships, negotiate 'win-win' deals, find the right partners with compatible goals and values, and provide the temporary organization with the right balance of freedom and control" (Turner and Jones, 1994, p. 2). In the multimedia literacy course discussed here, this model was put to the test and found not only workable but successful.

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