The challenges of teaching communication courses in distance learning 3.3

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Abstract

Communication educators are facing challenges in new modes of teaching and learning in using distance education. There have been three waves in the development of distance education, each posing unique challenges and opportunities for teaching communication. Distance Learning 1.0 consisted of correspondence courses that relied on print media and interaction between teacher and learner through the physical delivery of written documents; DL 2.0 consisted of teleconference media that used electronic media for synchronous communication through audio conferences and interactive video conferencing. DL 3.0 used of Web based platforms with simple text and graphics presentations combined with asynchronous bulletin boards. DL 3.1 utilized more sophisticated communication tools including text "chat" and hypertext and still graphics presented through HTML. DL 3.2 incorporated multimedia with motion graphics, video burned onto CD-ROMs and low bandwidth audio/video materials. DL 3.3 represents the third wave of distance learning technology with wide band, high speed interactive media, the blogosphere, podcasting and virtual worlds like Second Life.

Learners have also changed. Generation X, Generation Y and the new millennial generation have developed greater familiarization with communication technology. The succeeding generations of college students have also developed higher expectations about the sophistication of distance learning environments. The improvements in distance learning technology have created new challenges to teaching.

The paper draws from real life examples of teaching communication courses online. The following "lessons from the front lines" of teaching through distance learning are described in the paper:

● The opportunities and barriers of computer mediated communication as a pedagogical tool for teaching communication.

● Using multimedia online and in the third generation of distance learning platforms.

● The eternal and infernal problem of grading distance learning assignments and examinations.

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Change is inevitable (except at the vending machine) and nothing has gone through such rapid change as the communication technology used in distance learning. Communication educators are facing challenges in new modes of teaching and learning, specifically in the form of distance learning. For example, *Petersen's Guide to Online Learning* lists more than 1100 colleges and universities offering online courses in communication, journalism and related programs. This plethora of online education in communication is consistent with the burgeoning growth of distance learning in higher education. As the National Science Board (2010) reported,

> About two-thirds of 2-year and 4-year colleges and universities offer distance education courses. . . . Distance education is prevalent in public 2-year colleges (97%) and public 4-year colleges and universities (88%). A little more than half of private not-for-profit 4-year institutions offered online courses. Public 2-year colleges account for most of the enrollment (4.8 million), followed by public 4-year colleges (3.5 million). Private not-for-profit and private for-profit 4-year institutions both accounted for a little more than 1.8 million enrollments in 2006–07. (p. 2-9)

Distance education has a long history. In fact, there have been three waves in the development of distance education. Each iteration posed unique challenges and opportunities for teaching communication. Distance Learning 1.0 consisted of text based content that evolved from correspondence courses. Distance Learning 2.0 was the generation that evolved from audio and video broadcasting. Distance 3.0 is the current computer and internet based instruction.

Distance Learning 1.0 consisted of correspondence courses that relied on print media and interaction between teacher and learner through the physical delivery of written documents. The exigence for distance education was the compelling need to provide education to remote locations. Thus, correspondence courses developed because learners were barred from attending classes in the same locale as the instructor. One of the earliest forms of a correspondence course was the rhetorical instruction provided by the *Rhetorica ad Herrenium,* written around 86 B. C. E. and sometimes attributed to Cicero. This epistolary form of distance education evolved from the need to provide training in the vital art of rhetoric. In the ancient world, the ability to compose and deliver effective arguments was essential to civic life. Greek and Roman educators emphasized the study of rhetoric because success in ancient societies was based on the ability to convince other people in the courts, in political settings, and even in social gatherings. Because citizens in legal disputes were expected to plead their own cases, the ability to use rhetoric effectively was crucial if justice was to prevail. Because citizens were expected to participate in their governments, the skill of using rhetoric was necessary if government was to follow the best course of action. In short, rhetoric flourished for very practical purposes, and so it is to be expected that instruction in rhetoric would extend to students at remote sites who were not able to study in person with a rhetorician.

Correspondence courses, in more contemporary terms, flourished for a very similar reason: there was a need for instruction to be delivered to remote audiences who could not meet regularly with an instructor in the same place and at the same time. Anna Ticknor, for example, has been cited as

establishing The Society to Encourage Studies at Home in 1873 "for the purposes of educational opportunities for women of all classes in the society;" the society reportedly served more than 10,000 students over the 24 years of its existence (as cited in Nasseh, 1997, p. 1).

Today, print persists as an integral part of distance learning, but it has been supplemented by newer communication technologies.

DL 2.0 allowed synchronous communication through audio and interactive video technology. With newer communication technologies such as radio and television came new opportunities to reach remote students. While radio instruction is popular in developing nations (Tilson, 1994), instruction by radio in the United States failed to garner much interest (Watkins & Wright, 1991). In the United States, instructional television eclipsed instructional radio due in part to its capacity for visual as well as audio communication but also because there was private funding from the Ford Foundation and from government sponsored programs like the 1962 Educational Television Facilities Act, the 1967 act establishing Corporation for Public Broadcasting, and the 1972 FCC ruling requiring cable systems to offer an educational channel (Moore & Kearsley, 1996, pp. 27-29). DL 2.0 consisted of teleconference media that used electronic media for synchronous communication through audio conferences and interactive video conferencing.

In recent years the role of television in distance education has evolved from broadcast to interactive videoconferencing by compressed video signals. Distance learning in this iteration retained the traditional classroom as the model for instruction. Distance Learning 2.0 courses sought to replicate, insofar as possible, the educational experience available in the traditional, face-to-face classroom. Television, in its myriad of forms from broadcast to cable to videocassette, became the most popular media because it "so closely approximates the appearance of face-to-face instruction, which many teachers and students prefer. . . " (Verduin & Clark, 1991, p. 74).

Today, teleconference and broadcast media have been incorporated into distance learning in the form of streaming video, podcasts, and net meetings.

DL 3.0 is the use of web based platforms for distance learning. The computer became a new and valued educational medium just as it became an indispensable tool in business and entertainment. The earliest forms of computer instruction involved stand alone programs that provided drill and tutorials. While this form failed to achieve wide adoption, there have been tremendous strides in the form of instruction sometimes known as computer-based training or programmed instruction largely because corporations were willing to invest in equipment and design teams that were able to focus on specific training projects (Horton, 2000, pp. 8-9). Distance learning sought to employ the computer as a tool as well. Course material delivered on CD-ROM permitted students to experience a high technology form of correspondence course that went beyond the drill and tutorials of early computerized instruction, but the real growth began with internet connectivity. The Department of Education's National Center for Education Statistics (2000) reported that the meteoric growth in distance learning is largely attributed to the popularity of the internet as a distance learning technology (p. 54).

DL 3.0 with internet connectivity included simple text and graphics presentations combined with asynchronous bulletin boards. DL 3.1 utilized more sophisticated communication tools including text "chat" and hypertext as well as still graphics presented through HTML. As distance learning became more sophisticated and as connection speed increased, DL 3.2 incorporated multimedia with motion graphics, video burned onto CD-ROMs and distributed to students, and low bandwidth audio/video materials. These media allowed more communicative interaction which, in turn, improved attitudes, performance on tests, and were linked to retention in courses (Baath, 1982; Kwiatek, 1982-83). Surprisingly, one study showed little or no impact of interaction on student attitudes and satisfaction, although the author contends that a methodological factor may have accounted for this result (Beare, 1989). During the era of DL 3.2 a study of traditional versus web-based instruction conducted by Benoit, et al. (2006) employed a meta-analysis of 28 studies on learning outcomes and 10 studies on student satisfaction. They confirmed the meta-analysis with an original study of a basic communication class involving 2062 participants. Both the meta-analysis and the original study concluded that "there was no significant difference in the amount of learning from traditional and web-assisted instruction" (p. 54). The superiority of distance learning over traditional instruction has not been conclusively proven. The Benoit (2006) study also concluded that students "reported less satisfaction with web-assisted than traditional interaction" (p. 55). However, they also explained, "There is some indication that both learning from and satisfaction with web-assisted instruction are increasing gradually over time" (p. 57). The recent upsurge in new social media (text messaging, Facebook posting, mobile telephone and internet connectivity) may well affect learning outcomes and student satisfaction.

DL 3.3 represents the third wave of distance learning technology with wide-band, high-speed interactive media, the blogosphere, podcasting and virtual worlds like Second Life. Moore (1989) described three forms of communication interaction in distance learning (1) learner-content information from the course material, (2) learner-instructor dialog, and (3) learner-learner interaction between students. All forms of distance learning are concerned with the learner-content interaction but some forms of DL 3.3 integrate social media that may enhance the learner-instructor and learner-learner interactions. Podcasting allows only the limited form of instructor-learner interaction while the blogosphere may encourage more learner-learner interaction as well.

While we strive to make learning objectives and student outcomes comparable between distance learning instruction and face-to-face courses, so far we have not achieved the goal of making distance learning instruction the equivalent of face-to-face instruction by providing equivalent interaction in all three of Moore's forms of distance learning interaction. It is true that audio and video podcasting is being used more frequently in online classes, but this still does not reflect the live classroom communication except on the days when professors run a film or a video in the classroom. With webcams and broadband, we are getting closer to providing the technology needed to make oral interaction possible, but we still have logistical and educational problems to resolve before it can truly be said that we have given voice to our students in online courses. While there are systems that allow this interaction, there is a need for each participant to have a camera, sufficient bandwidth, and software readily available. Furthermore, the problem of attention and focus remain. We need to be able to speak and listen from one to many, from one of the many to one, among members of a small group

synchronously. To achieve success in all forms of interaction, we need to be able to see with each other with sufficient visual clarity and smooth motion to allow nonverbal feedback. We need to be able to speak and listen without disruptive time lags.

The evolution of distance learning has witnessed a corresponding development in our understanding of the impact of various technologies on learning. Robert Kozman (1991) conducted an extensive review of the impact of media on learning. He examined the impact of text, text and pictures, television, computers, and multimedia and found that each of the media had specific capabilities and that the learning process is "influenced by the cognitively relevant characteristics of media, their technologies, symbol systems, and process capabilities" (p. 179). He observed, for example, that

> Television differs in several ways from books that may affect cognitive structures and processes. As with books, television can employ pictures, diagrams, and other representational symbol systems, but, in TV, these symbols are transient and able to depict motion. Linguistic information in television can be orthographic, but more often it is oral and, as with audiotape and radio, transient. Because in television linguistic and pictorial symbol systems are transient and because they are presented simultaneously, viewers may process this information in a very different way than the back-and-forth serial processing of linguistic and representational information in books. It is also possible that the symbol systems used and their transient nature affects the mental representations created with television (p. 189).

He also concluded that "some students will learn a particular task regardless of the delivery device. Others will be able to take advantage of a particular medium's characteristics to help construct knowledge" (p. 205). Clearly, our understanding of aspects of distance learning technologies and their impact on learning has advanced.

Just as we have developed more sophisticated understanding of distance learning technologies, we have also evolved in our approach to educational design. As Wendy Dow (2005) noted, "The rhetoric in education has certainly moved in recent years from competition through co-operation and collaboration to the current concern with developing . . . communities of learners" (p. 6). Tapscott (2009) elaborated on the necessity of adapting to these changes. He concluded that if educators are to reach the current generation of students, they must adopt a more interactive approach.

> First, teachers have to step off the stage and start listening and conversing instead of just lecturing. . . . Second, they should encourage students to discover for themselves, and learn a process of discovery and critical thinking instead of just memorizing the teacher's information. Third, they need to encourage students to collaborate among themselves and with others outside of the school. Finally, they need to tailor the style of education to their students' individual learning style (p. 132).

Distance Learning 3.3 offers unique opportunities to address the collaborative interactions fundamental to the contemporary concepts of educational theory.

Learners have also changed. The Baby Boom Generation (1946-1964), Generation X (1965-1976), The Millennial Generation (1977-1997), and now Generation Next (1998-the present) have developed both greater familiarization with communication technology and greater demand for multimedia instruction. The succeeding generations of college students have developed higher expectations about the sophistication of distance learning environments. Back in 2002 Jones and Madden found, "One-fifth (20%) of today's college students began using computers between the ages of 5 and 8. By the time they were 16 to 18 years old, all of today's current college students had begun using computers – and the internet was a commonplace in the world in which they lived" (p. 2). Later, Robert Kvavik and Judith Caruso's survey of 18,039 students found that the Millennials demand greater use of technology in teaching and learning, that they prefer technology integrated within their courses to a moderate degree, and that they consider technology in the classroom to be supplemental rather than a radical replacement. Millennial students spend a great deal of time online and "technology permeates all aspects of student life, but its use as a tool has become paramount" (Kvavik & Caruso, 2005, p. 6).

The improvements in distance learning technology have created new challenges for teaching the succeeding generation of students. Key concepts have emerged over the past 15 years of teaching distance learning communication courses to graduate and undergraduate students. The following "lessons from the front lines" of teaching communication courses through distance learning are described in more detail below.

● **Teaching online requires recognition of the opportunities and barriers of computer mediated communication as a pedagogical tool for teaching communication courses.**

DL 1.0: Print Media. Print has many advantages as an instructional media. Both students and faculty are familiar with the technology used; it is relatively inexpensive; it is easily indexed and the information can be retrieved readily. As an informational media print is effective at presenting factual communication and is graphically rich. Disadvantages of the print media in distance education are that it is relatively static, that it requires more involvement on the part of the reader, and that print is not particularly effective at communicating action and emotion. Print is also less spontaneous and less effective at expressing social relationships (Biber, 1991;Crystal, 1995). Furthermore, there is significantly delayed feedback in the interaction between participants in the communication process. Delayed feedback, the extreme of asynchronicity, seriously affects the "flow" of the communication and may lead to perceptions of information flowing too slowly compared to the communication flow in a more familiar face-to-face instructional setting. For example, many of my students express dislike for text based "chat" in group discussion assignments in my public relations class. Since the web based course does not have a designated meeting time and because students find their schedules to vary across the semester, they find it difficult to establish and to maintain synchronous group discussions.

DL 2.0: Broadcast Media. The nature and effect of communication in broadcast media such as radio and television has been extensively studied (Lowery & DeFleur 1995; Perry, 2002). As distance learning instructional technologies, these broadcast media have the advantage of being dynamic, immediate, and familiar to contemporary learners. They more closely approximate the traditional classroom because they employ extensive use of oral communication and, in the case of television, also offer visual information and stimulation. The disadvantages of broadcast media include the one-way nature of the communication, the special equipment needed for developing the media, the difficulty of making changes in adapting to the specific needs and interests of the individual learners, and the lack of leaner-learner interaction. (Belanger & Jordan, 2000, pp. 78-81; Moore & Kearsley, 1996, p. 96).

Newer generations of radio and television distance learning technology, in the form of audio conferencing and videoconferencing, overcome some of the problems of broadcast radio and television as instructional media by allowing interactive dialogue and establishment of a more personal relationship among the participants. These media allow more communicative interaction which, in turn, improves attitudes, performance on tests, and can be linked to retention in courses (Baath, 1982; Kwiatek, 1982-83).

There remain, however, disadvantages to audio and video conferencing as distance learning communication systems. The technology involved in these formats can be expensive if line charges apply in addition to the high cost of equipment that must be at each sending/receiving point in the communication network. The technology was limited primarily to point-to-point communication because the costs for bridging significantly raised the per minute line charge rate. While this has been ameliorated by the development of internet based telecommunication, there are still inherent technical problems that limit to the number of points possible in the network and the utility of the mechanism for the comparatively higher student-teacher ratios of a traditional classroom (Kouki & Wright, 1999, pp. 34-64). Finally, considerable time and effort must be expended to train faculty to make effective use of these technologies (Gehlauf, Shatz, & Frye, 1991) and additional development must be put into careful instructional design (Price & Repman, 1994).

During this period, teaching a mass communication course using point-to-point video conferencing was a challenge for both students and teacher. Students at the remote sight were frustrated by dropped signals, frozen screens, and lags between seeking recognition, asking a question at the remote site, and providing answers and seeking feedback from the instructor's site. Using a team teaching approach between two sites was a more successful video-conferencing experience since the teacher at each location could interact with the students at the respective location and could serve as a backstop in case the technology failed.

DL 3.0: Web Based Media. The addition of internet connectivity has transformed computer based instruction because it has added a communication system that not only provides a media rich system for delivering information but also adds communication conferencing components. The importance of adding both synchronous and asynchronous communication capabilities should not be ignored.

The advantage of using the internet as a distance learning technology is that it can employ a wide variety of media formats including print, graphics, animation, voice and video. Another advantage is that there are tools available that allow synchronous as well as asynchronous communication between students and instructors, between students, and among groups of individuals involved in the course. Websites can be designed to run simulations, to run surveys, to offer and even score quizzes, and to provide a dynamic database so that the grade entries for a given student are always available to that student. Students can access databases of information. Papers and other assignments can be posted to the internet for review by the professor alone or for review by other students for peer comments and suggestions. Information and links can be updated easily and immediately, making the classroom infinitely adaptable. Work can be repeated and drills can be conducted without disrupting the learning of other class members.

There are disadvantages to internet based distance learning instruction, of course. Technical barriers include internet network demands creating denial of service or slow service at peak traffic times, platform incompatibilities among the participants in the class, lack of familiarity with how the technology works and how to overcome problems when they are encountered, and necessary bandwidth may not be available for digitally dense educational materials such as video, high density graphics, and simulations. Additional disadvantages include the need to devote time and resources to instructional design and development that take advantage of the educational possibilities of the internet and the need to devote training and support to both instructors and students in using the new technologies (Simonson, et al., 2000, pp. 186-187). There is also a danger that the fascination with the technology will obscure the educational objective. Unfortunately we sometimes get so fascinated by the bells and whistles of the technology that we lose sight of the fact that we must have to have solid content of offer wrapped in that lively packaging (Benjamin, 1997).

In the current iteration of a web based public relations and social media course, many students expressed positive responses to technologies like YouTube and audio blogs, but some students were frustrated by their computers that have limited audio and video capabilities. One suspects that this may be a function of the continuing problems of the digital divide. Sadly, many students do not have the monetary resources needed to take advantage of the sophisticated distance learning technology offered by college and universities.

● **Teaching Communication through distance learning must use multimedia online and explore the third generation of distance learning platforms.**

Using podcasts, streaming video and other communication technologies requires attention to both the content and the production values necessary to make multimedia effective. Simply placing a digital tape recorder on a desk while one delivers a lecture in a lecture hall will produce less than effective audio. Professors creating content must use quality equipment, must work from a well written script designed to take advantage of the specific media being employed, and must be prepared to edit the material for the most effective presentation. By using effective interactive media, educators can take advantage of what Tapscott (2009) identified as norms of the current generation of student. This generation "wants

entertainment and play in their work, education, and social life," and they are the "collaboration and relationship" generation (p. 35).

Using emerging technologies of virtual worlds like Second Life for distance learning environments is just getting underway. In addition to the learning curve of setting up a virtual classroom and teaching avatar, training students to set up their avatars, and interacting in real time with students, there are barriers to using this as an effective teaching environment. Lester and King (2008) taught a course to different groups, one in SecondLife and Blackboard and another in a traditional classroom. They identified some of the problems in dealing with a virtual world classroom environment. For example, they had to supplement SecondLife with Blackboard because the virtual world did not have a way of recording grades, of turning in papers, nor of providing a discussion board (p. 10). In addition, students in the class were given four weeks to master the skills necessary to operate in SecondLife such as creating an avatar, getting oriented to SecondLife, teleporting to the classroom, and communicating in the virtual world. They also found that students had no significant differences in learning or in attitude toward the course in the two environments. This finding is similar to most of the findings of the past that compared face-to-face with distance learning instruction. In short, virtual world teaching and learning shows remarkable similarity to the problems and promises of the early days of web based distance learning.

● **Communication professors should be prepared to deal with the eternal and infernal problem of grading distance learning assignments and examinations.**

Testing has always been a problem for web based distance learning. Since the examinations and writing assignments are not conducted under proctored conditions as is the norm in traditional classrooms, there is a concern that the work may not be done by the student enrolled in the course and a larger concern that it is all too easy to look up the answers for quizzes and tests.

To address these problems, we should distinguish between summative testing -- testing to provide a grade -- and formative testing -- testing to assess mastery of a subject to identify areas of accomplishment or the need to pursue further study (Wiggins, 1998). Since formative testing is only aimed at identifying how to help a student learn, there is no advantage to the student in cheating in the assessment and therefore we can put the concern aside. For evaluative testing, on the other hand, we must be concerned with the possibility of cheating. In these situations, the most effective solution is to proctor the assessments.

In grading written assignments we need to consider both markup and comments (Brookfield, 1995). Markups are more difficult in distance learning courses. The lowest technology solution is to markup papers in the traditional pen and paper manner and to use the postal system to mail the documents. A high tech method is to scan the marked up documents and e-mail the scan as an attachment. For this a sheet feeder is vital and the scanned file must be optimized for a small file size. The highest tech method is to use screen writing programs like Microsoft's One Note on a tablet computer to reproduce corrections using "digital ink".

Providing comments is considerably easier than marking up a paper. The teacher can use the "tracking function" in Microsoft Word to provide the same types of marginal comments that would be written in the margins of papers. An alternative is to use a Comment Form that refers to specific pages in the paper as a cover sheet. A third method is to use a frame that shows the student's paper in one frame and the teacher's comments in a frame beside it.

Distance learning 3.3 uses the latest forms of communication technologies like blogs and therefore requires special attention in grading. Blogs can be set up internally in platforms like Blackboard as a "bulletin board" that allows running commentaries. Blogs can also be set up through external sites like Blogger (https://www.blogger.com/start) or WordPress (http://wordpress.com/).

Many blogs are more like diaries than journals; that is, they are unstructured recordings of emotions and reactions rather than focused descriptions and reflections. However, the idea of the blog as an online journal is being adapted by many professors who have traditionally used journal assignments. Furthermore, because the blog is a web document, students can take advantage of the media rich possibilities of the web. For example, field recordings can be made and included in the blog entry. Students can upload video examples of observations and respond through audio entries or a more traditional written record.

While this digital version of the journal assignment can be used as a private communication between the student and professor, most blog assignments take advantage of the public nature of the web to encourage other students to learn from the observations of others. The rubric for the blog is similar to that of the journal assignment: students are assessed both on the mechanics and substance of their blog entries. Because the blog is a web document, there may be additional assessments of the hypertext and hypermedia included in the blog pages.

It is best to explain in advance how blogs will be evaluated. The rubric for blogs usually includes the mechanics of writing (correct spelling, grammar, etc.), quantitative criteria like the number of entries posted by a given student as well as the qualitative criteria (appropriate to the assigned task, the ability to apply the course material to real life observations and reflections, etc.).

In summary, we have noted the evolution of distance learning as the technology has advanced. For each advance in technology, instructors in communication courses have identified new ways of incorporating that technology into online courses with the goal of enhancing both classroom and online experiences of their students.

As teachers, we continue to grapple with creating the optimal learning experiences for our diverse student learners. Meeting each new wave of distance learning has offered us different constraints to overcome and different opportunities for enhancing learning and connecting with our students.

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