Designing for Online Distance Education: Putting Pedagogy Before Technology

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Abstract. *Theological schools are increasingly exploring online distance education as a mode of course delivery. Yet while online course delivery has the potential for effective, deep learning it can also have a number of pitfalls. This article introduces online distance education and examines in detail the pedagogical possibilities for online learning by providing a number of examples drawn from online courses. While championing the use of online course delivery for theological schools, it also sounds a note of caution by advocating that the use of technology should be driven by sound pedagogical principles. Putting pedagogy before technology will insure quality education no matter what the content or mode of delivery.*

Linda Harasim has correctly stated "all education – face to face, distance mode, online – requires understanding the nature of the medium in order to conceptualize and design it as an educational environment" (Harasim et al. 1995, 138). That is to say, good pedagogy requires an awareness of the opportunities and limitations of the mode of education. In this paper I will argue that online distance education provides opportunities for quality education, although it can lead to poor pedagogical practices. For online distance education to be effective one must understand the medium and the pedagogical principles that can lead to deep learning in the online environment. At a foundational level, putting pedagogy before technology will allow for the effective delivery of online distance education courses. We will investigate this under seven areas: the parameters of online distance education; the purposes of online distance education; the planning of online courses; the pedagogical possibilities in online distance education; the pitfalls of such use; the institutional,

faculty, and student prerequisites for effective delivery of online courses; and a few predictions about the impact of online distance education.

Parameters: What Is Online Distance Education?

Distance education has had a long history, extending back to the nineteenth century (Moore and Kearsley 1996; Patterson 1996; Cannell 1999). The development of an extensive, relatively inexpensive postal service in the late nineteenth century led to the creation of print-based correspondence courses. Such courses allowed for the distribution of information and the sustained exchange between learner and instructor via print. Such correspondence did not require physical proximity, and one could reasonably assume that a turn-around time of a few weeks was all that was necessary for each response. Correspondence study continues in many institutions today and is one of the foremost methods of distance education.

With the development of telecommunications, distance education was given new opportunities. From the early twentieth century, radio broadcasts allowed for the widespread distribution of aural course delivery. This was soon joined with the televised broadcasts of both visual and aural delivery of material. Voice recording abilities allowed for the distribution of audio lectures with print-based material.

Today the development of electronic communication media has opened further possibilities. While correspondence courses and radio and TV broadcasts are still in use, new technology has broadened such delivery mechanisms. Two-way audio-visual equipment allows for simultaneous interaction among a number of physically separated locations. Computers, and particularly the Internet and

the World Wide Web, have opened up a world of learning at a relatively inexpensive delivery cost. Many institutions are now looking to computer-mediated delivery of educational courses either as a supplement to face-to-face classes or as a means to deliver entire courses and, sometimes, the entire curriculum. This being said, the delivery of online courses is in its infancy and, despite much discussion and debate, there is room for much more research around theory and case studies. Nevertheless, many institutions are forging ahead with some form of online distance education, including a number of theological schools.

At the outset I want to be clear about how I will characterize online distance education. In a sense, almost any information found on the Web could be classified as potentially contributing to distance education. However, certain characteristics are required for a particular item to be so designated. First, it must have the sponsorship of an educational organization, or, more precisely, a reputable edu- cational organization. The latter clarification is necessary as we are beginning to see the proliferation of Web-based offerings of degrees attainable through credit for life experience! Business organizations also employ computer mediated distance education, although in such contexts it is generally referred to as "distance training" in recognition of a difference in the length and aim of their offerings.

Distance education is also characterized by the separation of the teacher and learner(s) for the majority of the duration of the course. The span of the distance does not matter so much as the fact that the teacher and learner will only meet together physically on a few occasions, if at all. Some institutions are effectively using hybrid courses in which learners meet together face-to-face with the instructor for part of the course (before, during, and/or after) while the remainder of the course is mediated via computer. In such hybrid courses the distance element of the educational process still needs to use sound pedagogical approaches to course delivery. Other uses of computers in education come through Web- enhanced courses. Rather than deliver an entire course online, regularly scheduled face-to-face courses also include a Web-based component in which interaction takes place via computers.

Distance education can be defined as "planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements" (Moore and Kearsley 1996, 2). The standards of The Association of Theological Schools define distance education as

> a mode of education in which major components of the program, including course work, occur when students and instructors are not in the same location. Instruction may be synchronous or asynchronous and usually encompasses the use of a wide range of technologies. (Aleshire, Amos, and Merrill 1999, x)

Such definitions incorporate the more conventional modes of distance education delivery such as correspondence courses or two-way audio-visual delivery. The particular focus of this article is online distance education. I am specifying computers and the World Wide Web as the technology used to mediate course content and communication. At present this seems to be the most common form of distance education being explored in theological colleges across North America.

Online distance education courses have some particular and distinctive features that are worth pointing out. First and foremost, online courses are different than traditional classroom experiences. In many instances online instruction is undertaken with a view that it involves nothing more than uploading an instructor's course notes onto the Web. It is the student's task to read and process those notes, usually evidenced by the submission of written assignments. This knowledge transfer mode of education is not only outdated in the educational world generally (online *or* face-to-face); it simply will not work online. Indeed, it becomes nothing more than a print-based correspondence course at best, and an expensive one at that. A similar problem can occur with the use of chat rooms, which one instructor told me was his preference because "they best replicate the dynamic of the classroom." Anyone who has participated in chat rooms knows that they are a lot of things, but a mirror of the classroom they are not! The communication is still text-based rather than aural and the exchange generally moves quite slowly, depending upon the typing speed of the participants. Thus, it needs to be recognized up front that online learning is different. This does not mean that it is *sui generis*, however (Dede 1996; Kearsley 1993). It is only to suggest that for an online learning environment to allow learning to occur attention must be paid to the specific nature of the medium. Indeed, with sound pedagogical principles, there need be no significant difference in learning no matter what kind of media or methods were used (Russell 2001; Patterson 1996).

Second, in an online distance education course teaching and learning is communicated via the computer and usually over the World Wide Web. Although some instructors are experimenting with more visual interactive techniques such as streaming video or interactive Web sites, the predominant form of communication takes place via written messages.

There are generally two possible scenarios in which continuous two-way conversations can take place between instructor and learners and among the learners themselves. Synchronous communication can occur when participants are any place but are all online at the same time. The most common example is a chat room – a forum in which participants can all read and post messages in real time. Asynchronous communication can take place any place and any time. An asynchronous discussion board allows participants to login at any time of the day or night, read messages, and respond to messages, even if those messages were posted hours or even days previously.

A third distinctive feature of online courses is the nature of learner participation. People generally participate differently online than they do in class. Whereas classroom discussion often provides a forum for extroverted learners to participate, it does not always allow room for others to process information at a comfortable level or for introverts to muster the courage to jump into a discussion. In classes where grades are given for participation it is difficult to assess a clearly bright student who attends class regularly but who participates infrequently, if at all. In the online environment everyone must contribute to a discussion in order to register their presence in the course. Although lurkers can attempt to stay on the periphery, mandating regular participation will insure their contribution. In an asynchronous environment they have the opportunity to reflect upon the substance of a discussion and formulate a response with which they are comfortable. Although not everyone will participate at the same level, everyone will participate.

Fourth, the nature of the medium changes the social dynamic of the learning environment. It is much more difficult in written communication to sustain high energy levels or to react to messages being sent via body language rather than verbally. As a "cold" medium one is challenged to create ways of interaction that not only focus on the intellectual exchange of ideas but also allow for the expression of more personalized reactions to course content. The role of the instructor also changes. Less control of the class is afforded the instructor in an online environment and the instructor becomes more of a facilitator or moderator. This loss of control can sometimes be disconcerting, but one must learn to adjust.

I experienced this within the second week of a recent online course on Luke-Acts. Having decided to use only online readings, I searched the Web and found appropriate required and supplementary readings. There is much more available on the Web than is possible to assign, so I made some strategic choices about what the students would read and what would not be required. I assigned an article on the narrative logic of the annunciation to Mary but eschewed another, equally good, article on the historicity of the virgin birth. My desire was to have students focus on narrative themes rather than historical issues. However, during the week of this unit one of the students surfed the Web and came across the article on the virgin birth, read it, and posted a summary for the class and invited them to read the article and respond. And they did! It generated a great deal of discussion and debate. While my original assignment was not ignored, this particular group of students was energized by a different topic. While in the classroom setting I might have attempted to redirect their focus, in the online environment this is much harder to do. One must allow the students to drive much of the learning experience.

Finally, the online teaching environment changes the social dynamics of the class around class, race, and gender issues. Computers are relatively inexpensive pieces of equipment, but the focus here should be on "relatively." They still represent a considerable investment for some people and are beyond the economic means of many. Add to this the cost of subscribing to an Internet service provider (ISP) and online learning opportunities can easily become the purview of the upper middle-class. This need not be the case, due to various social programs being implemented across North America in places such as libraries and churches, but it is an important consideration for those teaching online courses.

At the same time, online courses can help minimize discrimination and prejudice (Palloff and Pratt 1999, 15). In the online environment no student can tell the race or gender of anyone else unless it is self-disclosed (even names can be hidden and pseudonyms assigned). Many African-Americans report experiencing less discrimination in the online learning environment. This is also the case with physical characteristics, disabilities, and even accents of participants. Unless these are self-disclosed it is difficult for bias to creep into the learning environment. While there are many benefits to having students post photos of themselves by way of introduction, doing so immediately diminishes this bias-free element. This must be thought through carefully in terms of the overall design of the course.

Purposes: Why Use Online Course Delivery?

Online course delivery might be considered for many reasons. First and foremost should be a concern with serving student needs. Many educational institutions continue to experience a shift in the demographic makeup of their student body. Certainly many seminaries no longer expect their typical student to be the twenty-one-year-old single, white male. Indeed,

in many cases the student is more likely to be older, undertaking training for a second career, and is as likely to be female as male. Today's seminary students lead complex lives, often attempting to juggle education, family commitments, parish work, and part-time jobs. Some travel great distance just to attend classes. I often admire and marvel at the commitment of our students to gaining a theological education. The elimination of a lengthy commute through the introduction of some online course offerings can free up valuable time for such students. It also allows much more flexibility in their weekly schedule, a benefit it gives likewise to residential students.

For both the students and the faculty, online course delivery allows for creative pedagogy. Students learn to construct their own learning and instructors learn how to teach differently. No matter how well we teach in the classroom there is always more to learn, at least for reflective practitioners. Tried and true methods may no longer work and new contexts demand new approaches. By committing to teach online, faculty will undoubtedly experience their own learning curve, not so much in terms of the technology but in terms of their teaching. One must design a course somewhat differently in order to maximize the pedagogical potential of the online environment. Students can benefit from such creative uses although, unfortunately, they can also become the unwilling victims of poorly designed online courses.

There are also benefits for the institution as a whole. But first the bad news. Despite the hopes of deans and presidents to the contrary, online course delivery will not solve an institution's financial problems. Only poorly designed and poorly delivered courses can be done at minimal cost. While they may generate some initial surplus income, they will not sustain themselves over the long term. Quality online course delivery is expensive, especially if an institution has to invest in the technological infrastructure. However, even if the campus is wired with digital lines and computers sit on every desk, there are substantial costs to quality online delivery. Faculty will find that teaching online can be somewhat arduous at first and often goes well beyond their regular teaching load. While many experience great professional satisfaction, institutions also need to consider what types of reasonable faculty compensation might be required to insure quality online course design (e.g., reduced teaching load, extra pay, and such).

Nevertheless, done properly, online course delivery can benefit the institution as a whole. Not only will it help fulfill the institution's mandate to provide quality education, it will also allow for niche marketing. Courses can be offered that might be of particular interest to the institution or to a faculty member that, if offered on campus, would under-enroll. For example, Queen's Theological College has successfully offered online a quarter semester course in United Church Polity for the past few years. This course is required of all persons undertaking ordained ministry in the United Church of Canada (UCC). While some of our own M.Div. students take the course online, it also draws students from other UCC colleges and persons who are ordained in other denominations but are seeking to formally enter into ministry in the UCC. Although we could offer this course solely on campus, it has a much broader market online.

This leads to a second benefit for an institution that offers online courses – recruitment of new students in untapped markets. Many seminaries are struggling with declining enrollments and online course delivery can attract new students. Most theological institutions are not yet moving to the delivery of entire programs online (a practice the ATS accreditation standards disallow). However, offering one or two courses at a distance allows new students to experience theological education and to test their own academic abilities, perhaps after being away from formal education for years. One hopes that the experience will be positive enough that they will enroll in the full program. A word of caution is due here, however. New student recruitment is a benefit of offering online education but should not be the sole motivation for undertaking online course offerings. While it has the potential to expand an institution's student body, there is no certainty and growth from this area is likely to be slow.

Planning: How Does One Design for Effective Online Delivery?

At this point I want to turn attention to the most important aspect of online course delivery: course design. As with any mode of course delivery an essential aspect of the course is a well thought through design. Thus, the process involved in the delivey of courses is very like a face-to-face setting. However, along the way we will point out where the design process must take particular cognizance of the medium of delivery. There are four essential steps of online course design:

1. Undertake analysis
2. Set goals and objectives
3. Select teaching strategies
4. Administer evaluation

Although not a guarantee of effectiveness in and of themselves, following these steps will help to insure that an online course is designed with students in mind while meeting the needs of the overall institutional curriculum.

The first design step involves undertaking analysis or, more accurately, undertaking analyses. The initial analysis should involve online courses in general: whether there is a need for online courses and what institutional goals and objectives might be met through online course offerings. The selection of appropriate courses will be linked not only to the curriculum but also to the particular desire or skill of faculty members. In determining initial online course offerings it may simply default to the techno-geek faculty member who is keen and able to use electronic media in teaching.

Analysis is also required of learner characteristics: who they are and what they can do. Obviously, we cannot know who students are individually before they enroll in a course. However, we can form a generalized view of the students that the course might attract by asking a number of questions, such as: Are they older adult learners with considerable life and ministry experience, or are they fresh out of their undergraduate degrees? Are they generally full-time students, or are they likely to be taking a course or two while balancing other life activities such as work and family? What problems or situations are they likely to be facing that will cause them to need the knowledge and skills offered through a particular course? An important consideration for online learning is an assessment of their technological skills. Are the learners likely to be Web savvy, or will they be "newbies?" Will they be able to download shareware like Adobe Acrobat Reader? Will they have high speed Internet connections, or will they be using slower modems and outdated computer equipment? The latter questions are important as one makes choices about the level of technology to be used in the course. Streaming video is great, unless one has a 28.8K modem, in which case it is painfully and frustratingly slow to download.

A final piece of the analysis involves the instructor looking at her or his own characteristics and style. We all teach differently and have different comfort levels with the variety of pedagogical styles. While some prefer to read carefully constructed lecture notes in class, others might lean towards free ranging discussion. Some of us employ different styles in different contexts. However, it is important to know one's own preferred teaching style. Most of us gain some satisfaction from our professional lives as teachers, and, if I am to be honest with myself, much of my own satisfaction comes through the affirmation I receive from students. Entering into the online teaching environment will not necessarily lessen this satisfaction, but the feedback one receives is different. I have heard other teachers proclaim that when students enter their classroom they do not just get information they get an experience of *me*. While this is also the case online, if the *me* in the classroom setting involves physical presence, then in the online environment there

may be some instructor dissatisfaction with the course. While the model of "sage on the stage" might still be necessary in some instances, effectiveness in the online environment is more likely if an instructor is comfortable being a "guide on the side" (cf. Palmer 1998; Grow 1996).

The foregoing analyses are not necessarily linear, and one analytical move might cause the reevaluation of another area. However, once there is a clear understanding of the types of students who will be enrolling in the course and an awareness of an instructor's own preferred teaching style, one can then set the course goals and objectives. These can often be determined by asking some key questions:

- What do I want my students to know?
- What do I want my students to think?
- What do I want my students to be able to do?
- What do I want my students to feel?

Not all of these questions are appropriate for all courses. Nevertheless, those that are appropriate should be answered in light of the learner analysis. That is, knowing the characteristics of the students involved in the course will allow for the setting of goals and objectives that build on their strengths while stretching them into new areas that have relevance for them.

Having set the course goals and objectives, the next step involves choosing the appropriate teaching strategies. It is at this point that the characteristics of online pedagogy have the most significant impact on the teaching process. Indeed, before proceeding any further it is worthwhile reflecting upon the goals and objectives of the course and asking "can it be done online?" If the answer is "no" then there is no point further designing the course. This might seem like a somewhat inconsequential question, perhaps one that should have been asked earlier, but it goes to the heart of good online pedagogical practice. Too often the delivery of online courses is driven by what the technology can do. For example, because we have the technology to stream video clips to students we somehow should do that. In such cases the technology is driving the pedagogy. What I am suggesting is that we need to put pedagogy before technology. The computer and all that it can do should be at the service of the teaching process (Patterson 1996). Think of the use of the chalkboard in the class, itself a piece of technology. Although it is always present we do not always use it; we use it when it becomes a help to the teaching process. In-depth analysis of student abilities and needs and the clear articulation of goals and objects will allow for reasoned decisions about the aspects of the technology to deploy in any given course.

One of the most significant aspects of computer-mediated education is the ability to design for interaction: instructor-to-student interaction, student-to-student interaction, and student-to-content interaction. Such a wide-range of interaction allows for the creation and synthesis of knowledge. Indeed, the collaborative process of online interaction through exploration, reflection, and discussion will lead to deeper student learning. As the research of Glasser has shown (see Nicholl 2001), people generally remember:

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear
- 70% of what they discuss with others
- 80% of what they experience personally
- 95% of what they teach to others

As with face-to-face instruction, the learning environment can be designed in such a way as to maximize the potential for student learning. However, engagement and motivation must deliberately be built into course design (Gagne, Briggs, and Wager 1992). Unfortunately, also like the classroom environment, courses can be designed to insure the minimal levels of learning through reading and hearing. In online settings this is referred to as ''shovelware.''

The fourth and final step in online course design involves evaluation. Formative evaluation should be carried out throughout the duration of the course. This can be done by inviting student feedback, either informally or through some feedback delivery mechanism. It can also be carried out by allowing a peer to lurk in the online environment for a week or two and provide feedback about how it is proceeding (in such cases, for reasons of confidentiality, students should be made aware of the accessibility of their postings to another instructor). In one online class that I taught, unsolicited formative feedback appeared throughout the course. Although much of it was positive, some comments allowed me to refine the course as we proceeded. At one particular juncture there was almost outright rebellion as one student complained about the amount of time spent on the course and was soon joined by others. I had told them to expect about ten hours a week of work. However, a number of them were putting in much more time and were becoming tired and frustrated. After some discussion I was able to help them see that despite repeated calls by me they insisted on posting discussion messages longer than the suggested one or two paragraphs (some were up to ten computer screens long!). Indeed, it was this aspect of the course, the composing and reading of long messages, which was adding the extra time to their course participation.

While I did not ban the continued practice, I pointed out the consequences of long postings (the absorption of a lot of time and the risk of being ignored). I also suggested strategies for reading and posting and tried to be more focused in my posing of discussion questions for each unit. This formative evaluation moment allowed me to change the pace of the course but also allowed the students to claim ownership of their own learning.

Summative evaluation is essential at the conclusion of the course. The overall course design needs to be assessed, and a record of what worked and what did not will help in revising the course in the future (I recommend keeping some type of instructor's journal week to week in which the flow of the course is recorded). Student evaluations are also important. Most institutions use some type of quantitative and/or qualitative tool to assess face-to-face courses. As far as possible, the same tool should be used to assess online courses. By asking the same questions of online courses as face-to-face courses an institution can amalgamate comparative data about online course delivery. At the same time, the online course evaluation might also include some questions specific to the online environment. In developing my own online tool I added questions such as these:

- Relative to a face-to-face class in this discipline the workload expectations of the instructor were: (Much higher; Higher; About the same; Lower; Much lower)
- In your opinion, did the course design facilitate the development of a community of learners? (Yes; No)
- In comparison to a face-to-face course in New Testament, how did this course address your own spiritual development needs? (More so; The same; Less so)

I also allowed space within each question for comments. The surveys were posted online and returned to the college administrator. She stripped any identifiers from them (e.g., names; e-mail addresses) and, after all were submitted, sent them on to me and to the department head. The data received was helpful. It not only helped assess student learning compared to face-to-face classes but also allowed for evaluating specific aspects of the course.

The second and third questions above were included to gather data about community development and spiritual formation online (Reissner 1999; Palloff and Pratt 1999, 21–45; Kelsey 2002, this issue). In part, I was interested to get some hard data around an issue that surfaces frequently within theological pedagogy, usually in a form that denies that community and formation are possible in a computer mediated environment (Cannell 1999, 15–16). Of thirteen returned evaluations in my

online class on Luke-Acts all thirteen indicated that the course design facilitated a community of learners. In response to the question about spiritual needs six students indicated that this course met their own spiritual needs more than a face-to-face course in New Testament, five indicated that it was the same, and two indicated that it was less. I do not want to claim much for these numbers. The database is small and the questions broad (one could ask what is meant by "community" or "spiritual development needs"). However, it is a start. For theological educators to go further it is desirable that more comprehensive study of this issue be undertaken (Di Petta 1998).

That being said, some interesting studies are being pursued. For example, in 1998 Robert Kraut, professor at Carnegie Mellon University, released a study that suggested that Internet users reported increases in loneliness and depression and saw the size of their social networks decline over time. However, in May of 2000 a Pew Internet and American Life Project report concluded that the Internet might not be so isolating after all. Indeed, in a fresh study that follows up the subjects of his first study, Kraut has found that the symptoms of depression had declined and that loneliness no longer appeared to be significantly associated with Internet use (2001). Kraut suggests that the shift may be due, in part, to the changes in the Internet and the types of users since his first study in 1995. In fact, although a small portion of Internet users report having spent less time with family and friends, the majority report no negative social effects and in many cases credit the Internet with enabling more social interaction.

Possibilities: What Can One Do in the Online Course Environment?

At this point I want to shift from the theoretical to the practical and focus on some of the online teaching strategies afforded by the technological capabilities of computer-mediated education. These are meant to be representative, and it is hoped that they will stimulate further thought about online course design. In many cases, the activities could also be adapted for Web-enhanced classroom courses. After a brief note on the types of communication possible and some suggestions for student orientation, I will offer some thoughts on student activities that allow for the generation of ideas and the creation of connections and extensions within each student's learning (Young and Wilson 2000).

The Internet and World Wide Web have afforded a number of communication tools for written instructor-to-student and student-to-student interaction including e-mail, list servers, and chat rooms. Any of these are readily available to anyone with a connection to the Internet and an e-mail address. However, course

delivery software such as WebCT and Blackboard have made these features more easily accessible within the confines of a password protected course site. Such courseware creates a virtual space within which course material can be posted, discussion groups created, e-mail exchanges facilitated, tests and assignments given, student homepages created, and evaluations administered. While these tools are often available free of charge for a one-time course offering, an institution that has committed itself to teaching online courses will do well to subscribe to one or another of these programs (for an evaluation of the various courseware programs see < *http:// www.marshall.edu/it/cit/webct/ compare/comparison.html* >). It is within such a virtual classroom space that the following suggested activities might be developed.

At the core of the online learning experience is the ability for students to regularly participate in ongoing threaded discussions (Palloff and Pratt 2001). More than any other aspect of the online environment, the asynchronous threaded discussion areas are a means to insure student-to-student interaction. Threading refers to messages that concern the same topic and have the same subject line. A single thread lists all messages for that subject in a format in which replies are indented to show responses to the original message. Separate topics are discussed in separate threads. This helps organize discussions and allows for ease of navigation through a particular subject. Individual forums can be created for particular units or assignments of a course within which a number of threaded discussions can take place. It is within these discussion forums that students can truly engage the subject, the instructor, and one another at a deep level. For discussion groups to be effective it is helpful to appoint a moderator/summarizer who will initiate the discussion, keep it on track, and summarize the important points at the end of the unit. While the instructor could do this, it is perhaps more important that the students take ownership of the group for themselves. It is also important to be clear on the requirements of the remainder of the group, those who will respond to assigned topics. For any given activity my minimal level of participation required two substantial postings and two substantial responses to the postings of others ("me too" did not count as a substantial response!). This insured the participation of all students in the discussions.

In the online course environment it is important to orient the students. One essential aspect is the early distribution of clear directions for logging into the course site and finding one's way around it. For students not particularly comfortable with computers this can be quite daunting and could even cause them to drop out early. The clear directions should also be tied to a specific activity. It might be as simple as

asking each student to post a simple greeting in a specific discussion forum. This not only gives them some experience with the courseware on a non-substantive posting; it also allows the instructor to monitor who has logged in (although most courseware also has such data readily available to instructors). It also is helpful to create a forum in which students can ask questions about the online environment and can share frustrations and triumphs with one another. In my online Luke-Acts course a few of the sixteen students were struggling with various aspects of posting and were expressing much frustration. This was dispelled by the admission by another student that she had managed to navigate her way around despite being blind. Needless to say, the sighted students were inspired by her determination to overcome the challenges of a predominantly visual medium.

One of the key features of establishing a community of learners in an online course is the employment of activities that will allow students to get to know one another better. In the face-to-face environment I often go around the room asking students to give their name and the reasons for taking the course. Depending upon the course I might ask a more specific question, what they like or dislike about the apostle Paul or which disciple of Jesus they find most intriguing. Online this is possible by creating discussion forums in which the students can post brief introductions and learning goals (I set up a separate forum for each). One minute biographies (i.e., notes that can be read in sixty seconds or less) work well as they force students to be brief. It is also important to create informal spaces for socializing. In online courses these can be variously named "Water Cooler" or "Corner Café" or some such social designator. This type of forum is a non-required component of the course, and I suggest that students use it to talk about social aspects of their lives – movie recommendations, novels to read, places to travel. Interestingly, this is the space in which some of my students chose to share at a deeper, more personal level. Questions about the course or about the technology are relegated to yet another forum. Setting up different forums allows greater organization of the course content. This is even more important as course unit discussion forums are added.

A number of activities can be employed to deliver course-related information and to stimulate students at the level of ideas or, using Bloom's taxonomy, knowledge and comprehension. The most obvious means is via Web page documents, such as syllabi and text materials. Although I would recommend against simply uploading course notes, a few screens of material describing some basic background can be helpful as each course unit is introduced. It may describe the topic of the unit, the key concepts, and the readings. Hyperlinks can be used to link students to other material such as online readings or a description of assignments and activities for the week (for an example see < *http://post.queensu.ca/˜rsa/de/ Unit_3_Background.html* >). Other content delivery mechanisms can be built into the course site such as the incorporation of PowerPoint presentations (with or without voiceover) and video lectures and demonstrations. Required and supplementary readings might be an important part of the course, and a decision will need to be made as to whether print texts will be used or whether all readings will be available online. Online delivery is difficult if copyrighted material is to be used. However, in some cases enough material is already available online to render a print textbook unnecessary. In my Luke-Acts course I decided against a print textbook as it would require my visually impaired student to rely on others to read the material to her. A few hours of Web searches convinced me that there was enough material online. This meant that the visually impaired student could click on the hyperlink and have her computer's text reader read the material aloud to her. When readings were required I often also requested that the students post a brief summary or analysis within the discussion forums as a means to insure not only that they read the material but also to allow them to read other students' understandings of that same material.

Other possibilities for the dissemination of content material could come through a question and answer forum with the instructor. This might be done through asynchronous discussion threads or in a live chat room. The difficulty with the latter is the need to find a common time when all students can login simultaneously, a problem compounded if students are distributed across a number of time zones. A similar format (synchronous or asynchronous) could also be set up with a guest expert. Although it can be expensive and logistically difficult to fly in an expert for a class period, arranging for the expert to participate from his/her own office can be much easier. Even in face-to-face classes, the virtual presence of the textbook author via phone or computer can add an exciting dynamic to the class. Online field trips can be great educational experiences and many museums and art galleries have already set up a number of great sites on the Web for exploration. Field trips in the real world can also be incorporated into the course, particularly if students report back their varied experiences to the class.

Students can use Web search engines to compile a set of resources for the course. This not only gives them a ready reference for research but also helps them develop Web searching skills and an ability to evaluate Web sites. Tutorials for such skills are available online. In my face-to-face New Testament Introduction class I assigned the students the following:

Use the World Wide Web to find online resources that discuss the historical Jesus. Compile a resource page that includes ten (10) entries – seven (7) that you consider to be of good quality and three (3) that you consider to be of poor quality. For each resource list the URL (full web address), the date accessed, a 2–3 sentence description, the process by which you found it, and your evaluation of it including the evaluation criteria that you used in establishing whether or not it is a good resource. The objective of this exercise is to introduce you to the vast array of web resources available, the tools used to find these resources, and the criteria used for determining the relative worth of these resources.

While the assignment fulfilled my immediate purpose for assigning it, it had the added and unexpected benefit of insuring that by the time the class arrived at the section on the historical Jesus the students had read a vast array of material on the topic. Not one of them was unfamiliar with the Jesus Seminar before I even began to lecture!

Moving beyond the conveyance of ideas, a number of online activities can also facilitate students making connections with their learning and extensions to other areas of learning (Bloom's categories of application, analysis, synthesis, and evaluation). At a basic level, keeping a personal journal allows a student to wrestle with material that is personally challenging. Small group brainstorming sessions around a topic can be effectively done within the chat rooms, particularly if groups are left to determine their own meeting time. The creation of a study guide has a similar function and students can create a presentation and share it with the rest of the class. Course software such as WebCT is equipped with "student presentation" areas that allow students to create and post simple Web-based documents for their peers to see (very little HTML is required; as an alternative, word processing documents can be posted as attachments).

Student peer feedback can play an important role in online courses. For example, in attempting to demonstrate the form-critical method of miracle analysis I assigned the following:

> Having read my notes on "Jesus the Miracle Worker" and Neyrey's article on "Miracles," examine the miracle you are assigned below. In a posting to your group forum list the features of the miracle according to the categories of form criticism and briefly describe how each feature functions in the story (be sure to note if it does not fit the pattern or deviates from the pattern). Also, make a suggestion as to why this particular miracle of Jesus was preserved in the oral tradition (its *Sitz im Leben*, or "what it 'did' for early Christians") and why you think Luke chose to include it in his gospel. By the end of the week provide a response to the analysis of another person according to

the chart below. In your response evaluate how compelling you find their suggestion for the *Sitz im Leben* of the story. You may respond to more than one other person if you choose.

Students were able to read the analyses of their peers, although they were assigned one specific person whose analysis they would review. With sixteen students in the course the presentations alone in this type of exercise could potentially take up hours of class time. Undertaking it online streamlined the delivery and insured the full participation of all students.

Role-playing is one way in which students can enter into dialogue with the material. During the first online unit of Luke-Acts I described briefly the role of patronage in antiquity and then asked the students to take on the persona of Theophilus:

> Put yourself in Theophilus's shoes. You have gone to great expense to feed and clothe "Luke" while he has brought together a number of sources to create an "orderly account" of the story of Jesus and the growth of the Jesus-movement. Luke has now submitted to you the finished manuscript and asked for your response. In a letter to Luke of no more than 400 words give him your reaction to your reading of Luke-Acts (read it in one sitting, if possible). What did you like about the story? What did you dislike? What questions or issues were raised for you? What passages in particular did you find intriguing?

Of course, this told me much more about the students than about Theophilus, but that was the intention. Nevertheless, a number of students enjoyed attempting to become a person in antiquity, and some did some significant exploration to try to discover more about Theophilus.

In a course on Paul I employ a similar role-playing assignment, although one that is more substantive. I ask students to write a letter from Paul addressing the following situation:

> The members of the Corinthian Christian community have recently healed their rifts and become a unified congregation. According to the last report worship is proceeding in an orderly, Spirit-filled manner. However, Claudius Hostilius Philadelphus, who has been a member of the congregation along with his household for some time and is a generous benefactor, has also started attending the biweekly meetings of the association of garment makers. At these meetings there is much drinking along with libations poured out to Dionysos. The Corinthians have written to Paul to ask how they should deal with the situation. Paul considers Claudius a friend and stayed at his house for part of his time at Corinth. Your letter should show how Paul would react to the situation, who he would address, and what he would recommend. The letter should also

include the features of a typical Pauline letter and must take into consideration the social context of the recipients in their particular first-century socio-cultural context.

The letters written in response to this situation vary in their approach to the problem. However, in both cases the role-playing allows for students to enter into the world of those we are studying and much substantive discussion ensues, both during and after the completion of the exercise.

Interactive case studies are also a means whereby students can connect with the material. Already there are some very good Web sites available and more are in the works. For example, Scott Cormode is creating a comprehensive, interactive Web site that currently includes twenty-two episodes from the life of Charlotte Robinson, the newly appointed pastor of the (fictional) First Church of Almond Springs, California (<*http:// www.christianleaders.org/Almond_Springs/ index.htm*>; see Michael Jinkins's review in this issue). Each episode includes a description of a pastoral situation and links to background information, Charlotte's journal, expert voices of experienced pastors who reflect on Charlotte's actions, articles that provide theoretical underpinnings for good pastoral practice, and interactive tutorials. Although the site is still under construction, it already provides a comprehensive pedagogical tool to all who use the Web. For profit companies are able to create audio-visual simulations of common situations in which learners make choices within a given scenario and then see how it unfolds (see, for example, <*http:// www.skillsoft.com/ ns_products_frames.html*>). At present such sites are focused primarily on business applications, but the model opens up some intriguing possibilities for online delivery of courses focused upon developing pastoral skills. Using such sites takes advantage of the expertise of the designers and lessens the workload of the course instructor.

One of the most challenging activities for the students in Luke-Acts was the "Great Debate." Two groups were set up to discuss the following situation:

> In his depiction of women throughout Luke and Acts does Luke indicate that women should have leadership roles in the church or does he indicate that women should not have leadership roles in the church? Two key texts to pay attention to are Luke 8:1–3 and 10:38–42, although other passages are important.

They were informed that after two days of private internal group discussion they would be assigned a position to argue in a public debate forum. In order to prepare they were required to come up with compelling arguments defending both positions. By midnight

(EST) of the third day their moderator was required to post their argument defending the group's position. Two days later their group was to post a response to the position taken by the other group. Finally, personal rebuttals to any aspects of the argument were allowed. Since students were compelled to take a stance with which they might not have been comfortable, they were forced into a position of reflecting upon both the exegesis of the texts and the hermeneutical implications of particular readings. There were frustrations, but in the end all agreed that it was a worthwhile, if difficult, exercise. The spacing of the debate over a week allowed for reflection and interaction at a level not often seen in face-to-face class settings. At the end of the week I, as instructor, summarized both sides of the argument within the context of current biblical scholarship and then adjudicated the debate. Although one student had already declared a "tie" I sent the following message:

> If this were a competition we might declare a "tie." However, I would prefer to say that, based on my readings of your substantive arguments, rebuttals, and responses, we are all winners!

The foregoing suggested activities represent only a small part of the myriad of possible activities that can be created in the online course environment (see further examples under course design resources below). The key is to insure that activities are selected on the basis of their ability to help students to meet the goals and objectives of the course itself.

Pitfalls: What Can Go Wrong?

We have not discussed the specific "how tos" of setting up an online course site, but there are a number of very helpful manuals available that describe the process in detail (see W. Horton 2000; S. Horton 2000; Driscoll and Alexander 1998). These manuals also discuss in detail some of the major pitfalls that can undermine the online delivery of courses. We will highlight only a few of these pitfalls here.

First and foremost, a poorly designed course will not only frustrate both the instructor and the learners; it will not serve the institution well in terms of attracting students to courses, online or in class. One of the most tempting, but potentially devastating, practices of online learning is the delivery of too much content. The ease with which one can upload course notes and link to online readings can lead to a feeling of information overload on the part of the student. Often less is better. Rather than cover everything superficially, deep learning can occur when one or two issues are tackled through selected readings and interactive strategies. Another design flaw is single

medium thinking. Discussions work well, but if students are required to discuss articles week after week for the entire semester they can grow weary. Varying the types of activities in the course will not only alleviate boredom but will also challenge different student learning styles.

Institutions intending to undertake online course delivery need to consider seriously the analysis stage. Online distance courses can quickly disintegrate if the students enrolled in them are not particularly suited to the learning medium. Likewise with the choice of faculty to teach online courses. Since online course delivery is still very much in its infancy, particularly in theological schools, it is important that the faculty member(s) appointed to teach online seriously consider what it takes. At the very least, it takes extra time and effort to design and deliver an online course. Some suggest that it is at least fifty percent more work than teaching in the classroom; some put the figure at three times more work (my own experiences suggest the latter figure is more likely the case at first). While this should not discourage faculty from accepting online course teaching assignments, they should be cognizant of the effort required (and hopefully compensated adequately).

Prerequisites: How Do We Prepare?

In this penultimate section I want to touch briefly upon some of the prerequisites necessary for faculty, students, and institutions to participate in online distance education courses (see further Harasim, et al. 1995). Faculty members require basic teaching skills at the very least and, more importantly, an ability to reflect critically upon their own teaching practices. Good design principles should be employed. If at all possible, faculty members will benefit enormously by becoming online students themselves, even if just in a short online workshop. The experience will give a sense of what it is like to learn online and might even inspire some practices that can be adopted in their own courses.

Although they need not be computer wizards, online teachers should have some familiarity with the computer and facility with the Internet and the World Wide Web. Since online courses are delivered through the Web, some training in designing Web pages can be helpful. In an ideal setting there will be a Web designer available to insure the proper coding of documents with HTML (Hyper Text Markup Language). However, in a less than ideal setting some HTML training may be necessary, although a number of inexpensive programs on the market allow for the easy creation of Web documents with a minimum of HTML knowledge (see Horton and Lynch 1999 and the online resources listed below).

Faculty members also need to be familiar with accessibility issues around online course delivery. The Web is predominantly a visual medium, but Web pages can be designed in such a way as to allow for those who are visually impaired to participate in courses. A number of Web content guidelines have been developed around accessibility issues (*<http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990505/>*), and there are even places that will test Web pages to insure they are fully accessible (e.g., *<http://www.cast.org/bobby/>*). Copyright issues are under great debate at the moment. When placing course materials on the Web, copyright must be respected. However, the more pressing faculty issue is focused on ownership of a course designed to be delivered online; once a faculty member has been paid to design a course, can it then be turned over to an adjunct for delivery? A recent report by the American Association of University Professors recommends that faculty have intellectual property rights (*<http://www.aaup.org/govrel/distlern/deipdocs.htm>*). However, this should be negotiated clearly within one's institution.

Student skills necessary for online learning are not dissimilar from those requisite for classroom learning, but particular components are essential. First and foremost, students need to be self-motivated and disciplined learners. Good time-management skills are important and the learners need to be able to work within tight deadlines. As with the faculty members, students should be prepared to undertake as much work, and perhaps more, as in a face-to-face course. Although course participation may be required in online courses, students often find that it is difficult to carve out quality time for logging into the course Web site and participating in course activities. It is easy for other circumstances to edge out the online learning experience. This, above all, probably explains the higher attrition rates in online courses when compared to face-to-face courses. Online students should also prefer to learn independently, rarely needing an instructor's guidance or assurances, although willing to contact the instructor when in need of help. Online students should also enjoy interacting with others and responding to discussion questions. Many online self-check tools are available to students as a means to assess their own readiness for enrolling in an online course (see the reference list below).

Computer-mediated learning is not just for "techies" but students will need some familiarity with the computer. The necessary hardware and software should be procured long before the beginning of class, and their primary use computer should be connected to the Web through an Internet service provider (ISP). At the very least, the student needs to be familiar with a word processing program and e-mail and be able to navigate the Web. Online tutorials are available for those without the requisite Web skills, for example, Ohio State University's netTutor (*<http://gateway.lib.ohio-state.edu/tutor/>*) or Queen's University's Web Search Guide (*<http://library.queensu.ca/inforef/guides/www.htm>*).

Institutional requirements include the proper infrastructure for the delivery of online courses (see further Ryan et al. 2000, 162-69). This is not just a matter of providing faculty with the necessary hardware but includes adequate support for faculty development and student learning (for sources of institutional funding opportunities for distance education initiatives see Krebs 1999). One of the most difficult, but necessary, commitments is technological support – a live contact at the institution who can address technological questions quickly and effectively. The ideal is 24/7 support: twenty-four hours a day, seven days a week. Since online students often do their course work at odd hours they may run into problems at three in the morning! Above all, the institution must develop a strategic plan that rationally and realistically moves forward in the implementation of online course delivery (Institute for Higher Education Policy 2000; Cormode 1999).

Predictions: Where Are We Going?

Many people are comparing the pedagogical shift brought about by the rapid evolution of computer networks to the challenges to traditional pedagogy inaugurated by Guttenburg's invention of the printing press. Whether this is a valid comparison or not is difficult to assess. What is clear is that computers play a central part in society and that they have already impacted many aspects of education. Developments in computer technology make it difficult to predict what lies ahead, although it does seem clear that people will increasingly interact online using all their sensory modalities. This makes it a challenge to design online courses that will use current technology but will also be adaptable to the newer technologies of the future.

If nothing else, the rise of online education has caused many of us to rethink our own pedagogical models. The creative teaching afforded by the online environment and the high quality dialogue among students in online courses suggests that computer mediated courses will play a significant part in improving theological education in the future. However, the effectiveness of online courses depends not upon technology but upon an understanding of the medium and the application of sound pedagogical principles in using that medium (Dede 1996). Sound pedagogy is essential to the effectiveness of all of our teaching, no matter what the content or mode of delivery.

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Resources:

Web/Course Design

Web Design Principles: *< http://trace.wisc.edu/world/ >*

Yale Web Style Guide: *< http://info.med.yale.edu/caim/ manual/ contents.html >*

WBT Development Process: *< http://www.filename.com/ wbt/pages/ process.htm >*

WBT Design Rules: *< http://www.filename.com/wbt/pages/ rules.htm >*

How to Design a Virtual Classroom: *< http:// www.thejournal.com/ magazine/vault/A2231.cfm >*

Effectively Using Electronic Conferencing: *< http:// www.indiana.edu/~ecopts/ectips.html >*

Online Learning Activities: *< http://virtual-u.cs.sfu.ca/ support/ maxEN/techniques/activities.html >*

Over 790-plus examples of how the Web is being used as a medium for learning: *< http://www.mcli. dist.maricopa.edu/tl/index.html >*

Web Content Accessibility Guidelines: *< http:// www.w3.org/TR/ 1999/WAI-WEBCONTENT- 19990505/ >*

Accessibility Test Page: *< http://www.cast.org/bobby/ >*

The "No Significant Difference" Phenomenon Database: *< http:// teleeducation.nb.ca/nosignificantdifference/ >*

Faculty Help

Teaching Styles Inventory: *< http://www.fcrc.indstate.edu/ tstyles3_instructions.html >*

University of Texas Faculty Tutorial: *< http:// www. telecampus.utsystem.edu/tutorial/access.html >*

Developing a Successful Information Technology Competency Strategy for Faculty and Staff: *< http:// horizon.unc.edu/TS/ development/1999-01.asp >*

Student Help

Student Self-assessment (Wake Technical Community College): *< http://www.wake.tec.nc.us/dist_ed/internet/ assessment.html >*

User Characteristic Checklist: *< http://mime1. marc.gatech.edu/ MM_Tools/UCC.html >*

Learning Styles: *< http://snow.utoronto.ca/Learn2/mod3/ index.html >*

Learning Styles: *< http://www.chaminade.org/inspire/ learnstl.htm >*

Other Select Resources

DECP WWW Professional Development Center (University of Wisconsin): *< http://www.wisc.edu/depd/html/ resource.htm >*

Illinois Online Network: *< http://illinois. online.uillinois.edu/ index.html >*

Resources for the Association of Theological Schools' Distance Education Conference "Building Theological Learning Communities at a Distance" (March 2001): *< http://www.blackboard.com/ courses/DOTE101/ >* (login as a guest and click on "Course Documents")