This paper discusses the implications for technology and distance education of the following value statement: "The world's resources are not infinite and they are not distributed equally on a global basis. Continued resource consuming growth and maldistribution of ever more scarce resources will increase conflict and poverty as well as undermine an ever more fragile ecosystem. Therefore, technology and distance education should be prioritized in ways that reduce waste and enhance equitable resource distribution." The author's basic expectations in developing the first telecourse at Middle Tennessee State University are summarized as follows: (1) the course needed to be, at least in a significant part, visual; (2) the course needed to have a story-based emphasis in what was communicated; (3) whatever was being taught, the student needed to appreciate that an individual could and should hold in their mind more than one way of viewing reality at the same time; (4) the material presented needed to be seen as relevant to the student's own personal life and seen as useful for their personal growth; and (5) the course must, to a significant degree, be experiential and interactive. Lessons learned from creating the telecourse are considered. (Contains 26 references.) (MES)
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BACKGROUND: Before Developing the Telecourse

A review of the literature on the utilization of technology and distance education and/or a review of the proceedings of the growing number of conferences either dedicated to or focusing on technology and distance education can quickly lead you to the conclusion that technology and distance education add up to the wave of the future. The wave is already moving and building substantial strength. However, what tends to be lacking is an appreciation of: the costs related to the wave, the damages the wave is likely to cause, and the almost total failure to place the wave within a value system consistent with the optimistic rhetoric that usually accompanies pronouncements about the wave of technology and distance education.

Although some efforts are being made to alert us to the costs and potential damages (Kreuger & Stretch, 2000; Gibelman et al, 1999; Orivel, 1996), while others have helped establish its effectiveness and ability to do things we cannot accomplish in traditional classroom settings (Freddolino & Sutherland, 2000; Coe & Elliott, 1999; Fitzgerald & McNutt, 1999), I have yet to find any coherent value system developing. Therefore, let us begin with a brief value system:

The world's resources are not infinite and they are not distributed equally on a global basis. Continued resource consuming growth and maldistribution of ever more scarce resources will increase conflict and poverty as well as undermine an ever more fragile ecosystem. Therefore, technology and distance education should be prioritized in ways that reduce waste and enhance equitable resource distribution.

Although additional values are inherent in the above statement and others could be brought into the discussion, due to limits of time and space (resources), I am going to limit myself to the above statement. Although you can't find this value position presented in the distance education literature, at least some awareness does exist as to the importance of such a global perspective (Johnson, 1999; Tiffen & Rajasingham, 1995).

What are the implications of this value statement? Should all universities, worldwide, start behaving as follows?

a. Stop building new ego-edifices? Actually start tearing down, selling off existing buildings? At Middle Tennessee State University (MTSU) "we" take great pride in the new library (a lovely building with increasingly little use) and an equally new and magnificent football stadium (to help ensure a win-lose mentality among students which is at odds with both biology and economics where win-win models are essential for survival (see Robert

http://www.mtsu.edu/~itconf/proceed00/frost.html
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Wright's *Non-Zero: The Logic of Human Destiny* for how win-win works). When the State of Tennessee threatens MTSU with funding cutbacks, we threaten back with plans to serve fewer students and raise tuition fees. Might we not see this challenge as an opportunity to do more with less via technology? The State of Washington is now thinking in these terms (Carnevale, 2000).

b. Start making our courses available without cost to developing nations? This does not assume that we have something they need to learn as much as it assumes they want to learn what we are learning/teaching so that they can take from it what will help them obtain a more equitable share of the world's resources. Some professors are already doing this on an informal basis. Might we not want to encourage this type of sharing? (Frost, 1998).

c. Increase the availability of free college courses to high school students for a variety of reasons? For example, students at the high school level who currently have such access discover their academic strengths and weaknesses early on—and may, therefore, decide to go or not to go to college and prepare accordingly. One of the greatest wastes in higher education is where students drop out during their Freshman year, often due to their not being ready to handle the demands of a college education. This not only drives costs up but it also undermines the incentive and self-esteem of students. Also, such courses could easily act as a far more effective way of determining a student's abilities than the current Scholastic Aptitude Test. What counts, ultimately, is not aptitude but ability to perform, which can be powerfully linked to attitude, commitment, and perseverance.

With a little effort on the reader's part, you may well come up with a variety of other questions the value system raises. My point is simply this, although a growing number of universities are investing in technology and distance education, little thought is going into the value system that should be guiding that effort.

Now let us assume that we have developed the value system, that we are downsizing our educational system and making our distance education courses available to everyone, world wide, all ages, either free or at significantly reduced costs. It is also assumed that we are doing this in a manner that makes it relatively easy for working people to take the courses and that enough courses are available that you can complete a degree in any field through distance education. Clearly we are not there yet, however, the potential to quickly reach this point exists and some organizations are already moving in this direction. The University of Utah is now advertising its distance education Ph.D. program (www.socwk.utah.edu), private Nova Southeastern University with 17,000 students brags that its total enrollment has doubled in the last 10 years and Nova is recognized as a pioneer and innovator in distance education (www.nova.edu), Walden University pushes its online graduate distance education courses (www.waldenu.edu), while such "bastions of the liberal arts" as Amherst, Brown, and Williams are considering a deal with a private company to offer their courses online (Carr, 2000, Jan. 28)---and these are only a few of the ever increasing examples of the wave beginning to crash down upon higher education.

What is now missing from this picture? How do we ensure that what we will be teaching is of a higher
quality than what we are now teaching? This question assumes that what we are now doing needs to be done better. A lot of educators fear that distance education will undermine the quality of education. That fear is a reasonable one and steps need to be taken to ensure that a dumbing down of education does not occur. To ensure that this does not happen, as Quam (1999, p. 325) suggests, after she cautions us to find an effective blend of technology and traditional teaching: "We need not fear the future if we are a part of shaping it." But, let's get honest here! In general, the quality of education is dismally low! A significant number of the students we are currently "growing" are marginally literate, often have a shallow understanding of the world beyond their backyard, and are, in many ways, ill equipped to effectively understand, support, and participate in the type of world the above value system outlines. Therefore, we should be more concerned about how to use technology to enhance quality, rather than simply using it because it is growing in popularity. This is especially true given that the questions of cost efficiency and effectiveness of technologically driven teaching are still very debatable (Jaworski, 1996; Orivel, 1996). However, even given this debate, the best way of ensuring quality is through embracing technology and distance education and placing quality issues as the number one priority. Obviously, this requires that we rigorously evaluate the teaching that we do whether it is technologically sophisticated or relies upon traditional forms of pedagogy that go back some 4,000 years. This concern with evaluation is, fortunately, a growing one (Knott, 1994; Connick, 1997; Smith, 1996). Also, a substantial body of literature is now available to provide guidance in our efforts to effectively employ technology and to assist us in developing models that address a significant number of the concerns raised (Plomp & Ely, 1996; Wagner, 1997; Potts & Hagen, 2000; Forster & Washington, 2000).

DEVELOPING THE TELECOURSE

All of the foregoing was playing through my mind as I prepared to create the first telecourse produced by MTSU. Also, my belief system, as I sat down to plan the telecourse, was one in which:

- although I teach and have taught via interactive satellite transmitted technology, I do not believe it to be the wave of the future.

- although I have a website for my telecourse, I do not believe that Internet courses are the wave of the future.

What I felt was the wave of the future had to meet certain basic expectations:

a. The course needed to be, at least in a significant part, visual. Certain people learn best through visually supported messages (Cyrs, 1997, pp. 27-32).

b. The course needed to have a story-based emphasis in what I was trying to communicate. Most people retain concepts for a longer period of time if they are linked to stories.

c. Whatever was being taught, the student needed to appreciate that an individual could and should hold in their mind more than one way of viewing reality at the same time. Dichotomous thinking where ideas were presented as yes/no, right/wrong, tends to distort the diversity that naturally occurs.
d. The material presented needed to be seen as relevant to the student's own personal life and seen as useful for their personal growth.

e. The course must, to a significant degree, be experiential and interactive. The material needed to be presented in a manner that actively involved the student, even the distant student.

Creative teachers have long believed in and practiced the above as essential elements in their pedagogical approach. As Wagner (1997) notes, the key to successful teaching at a distance is still the active participation of the learners. This interactivity needs to be on three levels: teacher/student, student/student, and student/content. Obviously, this was a substantial and very demanding set of expectations for a telecourse as it is for any course. The task for the telecourse production is more complicated because the teacher that is skilled in the traditional classroom setting cannot expect to successfully transfer those skills over to the distance education environment (Cyrs, 1997, pp. 15-18; Jaworski, 1996; Simonson, 1997). Also, telecourses can expect a higher dropout rate than comparable traditional courses if they do not create a structure to minimize attrition (Carr, 2000, Feb 11). Keeping in mind that the level of support for this course by the university was marginal, the challenge was, therefore, even more demanding. All the university was prepared to provide was a studio in which the course could be taped. The university offered no release time to prepare the course, no resources for shooting scenes outside the studio, no funds to enable me to pay guests to come to MTSU and participate in the course, no time for sophisticated editing of the course so as to enhance the quality of the product. (On one level, this lack of resources fits very nicely into the value system noted earlier. It should not take large sums of money to create effective distance education courses.)

It was up to me to innovate, to scrounge up resources to supplement the course, to figure out ways to meet my expectations. Fortunately, a talented drama professor at MTSU, Dr. Jette Halladay, was willing to participate in the telecourse by directing a group of students who would do a role-play for each of the 13 segments. Also, the role play actors would do a scene, and play the same scene over again up to four times, all live on-camera, so that the audience could observe how people might approach a problem from more than one perspective. I was also fortunate in enlisting the participation of Belleruth Naparstek, a nationally recognized expert on visual imagery exercises. Thanks to her willingness to release her copyrighted material, I was able to end every telecast with a different one of her vivid imagery exercises, which lent a powerful participatory element to all of the lessons. The third element for the videotaped portion of the course was myself. I had to make sure that I role modeled the behavior that I was expecting from my students. Therefore, a significant part of what I had to present was based on self-disclosure, my own life experiences related to the content of the course. If I really believed that what I was teaching was relevant to the student's life, then I surely must have been using the concepts in my own life and relating the material to the various life experiences I have had.

The other parts of the course needed to fit into my model as well. The written content supporting the course was located on a website designed for the course. Hundreds of pages of material could be found by the student on this website. Included in the material is three papers done by students who took the course during its in-studio stage when it was being taped in front of a live audience of students. The papers demonstrated how the students were able to incorporate the course content into learning in their own lives so that the students could see specifically what would be expected of them in the two papers that they would be required to write. (They are also required to take two tests based on the written material they find attached to the website.)
However, one of the most exciting parts of the course, is the interaction between professor and students via e-mailed questions and answers. Students can earn extra-credit points by simply asking questions via e-mail. Or, when I send out a question to them via e-mail, if they elect to answer it, and the answer is worth sharing, they can earn extra-credit points this way as well. I plan on including the best questions and answers (mine and student) on the website so future classes can benefit from this dialogue.

LESSONS LEARNED FROM CREATING A TELECOURSE

In no way does any of the foregoing mean that my telecourse is flawless. Lots of limitations exist due in large measure to the limited resources I had to call upon. This limitation, when compared to the limitations of traditional courses is not in the least unique. In fact, I "modestly" contend that this is both the finest telecourse dealing with this topic to be produced and superior to a traditionally taught class in a number of ways. One of the reasons I make this contention is my hope that someone will identify for me a better course on this topic and then I will be able to learn from their efforts and improve upon my own. I deeply believe that this is the most important dimension of telecourses. Through them we hopefully will learn what others are professing and either learn from that or challenge their content. In fact, I hope to see in the future, telecourses that utilize more than one professor, more than one set of ideas---courses that challenge students to come to their own conclusions because the conclusions of the two or more professors that are presenting their ideas are at odds with one another. This, in fact, is the design I hope to implement in the next telecourse I produce. As I expand the number of distance education courses I offer, one of the unfortunate complications I may encounter is from accreditation organizations. Although these organizations tend to profess an openness to technological innovation, such claims often are used to hide their reluctance to change (Wilson, 1999). I hope, as I engage in accreditation processes, to assist my colleagues in seeing a vision of the future wherein technology is embraced without reluctance WHEN it is designed to create greater quality.

An old but very relevant quote by Gertrude Stein reminds us that: "Everybody gets so much information all day long that they lose their common sense." If technology is to be effective in assisting education in its efforts to teach effectively, it must not be used simply to create more information. Our goal should be to create ever greater quality, not just more of the same old material dressed up in new techno-garments. As Connick (1997) notes, the shift will be toward measuring outcomes and doing more with less.

In his effort to envision the university of the future, president emeritus of the University of Michigan, James J. Duderstadt (2000) states that: "Faculty members and administrators should work together to provide an environment in which change is regarded not as threatening but rather as an exhilarating opportunity to engage in the primary activity of a college or university: learning, in all its many forms...Given the current pace off change, colleges and universities may be virtually unrecognizable in the future" (B6). I hope that he is right, because the need exists for both higher education and the world at large to change dramatically and quickly toward a more cooperative world society that is less consumption oriented and more equitable in the sharing of resources. Technology holds the promise of assisting and expediting that needed change if we employ it in a manner consistent with the highest values of our democratic society.

REFERENCES


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