Review of Literature: Distance Education
Association of Theological Schools
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"The future is outside the traditional campus, outside the traditional classroom. Distance learning is coming on fast." Peter Drucker

Distance Education: A Concept in Search of a Theory[1]

A coherent review of the literature on distance education is hampered by a bewildering range of definitions, multiple opinions concerning purpose, varying perspectives on the relationship between distance learning and traditional modes, and the lack of a consistent theoretical framework. The trajectory from correspondence study to more contemporary, computer enhanced modes of education-at-a-distance is relatively easy to trace. However, the issues affecting the future of distance education are complex. Questions concerning accreditation and standards, evaluation and assessment, instructional requirements related to academic credit, admissions criteria, and control of instruction, present a mine field of difficulties for decision makers. Issues of access, especially for persons in developing nations, the role of faculty and their development, the nature of the learning community in distance education, the internationalization of education, the role of libraries, the nature of instructional design and course development, the effects of technology, are among an increasing number of issues that preoccupy the literature.

Institutional and program patterns are also complex. Examples are given of universities that are solely Distance Teaching Universities, or Dual Mode, or somewhere in between. Various forms of consortia are emerging--not only between schools, but between schools, corporations, and public agencies. Faculty appointments are described in terms of extracurricular overload, joint appointments with a distance learning program, or specialized faculty assigned to distance education. The curriculum is seen as specialized adult education programs offered off campus, traditional curriculum simply transported to another location, individualized study, computer-driven interactive experiences, and/or various combinations of residential and distance offerings. It is also clear that the shifts to distance learning are forcing a debate about the nature of teaching and learning. As the field of distance education searches for a theory that will guide its development, descriptions of experiential learning, cognitive processing, transformational versus transmissive modes of learning, and lifelong learning demonstrate that the only clear trend in this debate is that some form of an Instructional Paradigm is inexorably shifting to some form of a Learning Paradigm.

This review is to provide a basis for the discussion of distance education in relation to theological education; and the role and responsibility of accreditation agencies in relation to the rapidly developing programs of distance education in seminaries. The opportunity for pro-active decision making and facilitation is long past in the Association of Theological Schools (ATS). Seminaries are proceeding with distance education (often described as extension education) and creating substantial systems to manage it. Some schools are investing in the technological infrastructure to support multiple forms of distance education--forms that will ultimately raise the question: “Why should students have to come to campus at all?” Already, distance education enterprises in some seminaries are equivalent to big business and stretching the interpretation of ATS Standards. It will be increasingly difficult for ATS to systematically accredit these

[1]See Keegan (1988)

enterprises as they develop a substantial infrastructure with the corresponding financial investment.

In each institution, distance education will simply be the transference of old models to new sites, or it will die from the inattention of administrators and the disinterest of faculty, or it will flourish and be a productive impetus for new questions regarding educational process. These questions will inevitably expose fissures of difference within theological education related to the nature of teaching and learning. Traditional programs and distance learning programs are interfacing more frequently, especially as issues of organizational survival, the desire to accommodate the realities of today's student, and pressure from competing agencies are straining formal programs and leading institutions to look at alternatives. Differences of perspective with regard to learning, control of educational process, nature of curriculum, role of faculty and learner, and patterns of instruction will become more obvious; the debates concerning accreditation and standards more intense.

If ATS sees distance education initiatives running "out of control," how will it "pull the plug?" What pressure can an accrediting association exert on theological schools that have substantial precedent from the field of higher education in general for multiple formats in distance education--some of which challenge existing standards? If institutions see ATS guidelines as restrictive, and if they feel that accreditation from regional agencies is sufficient, the challenges occasioned by the experiments in distance education may fracture ATS--perhaps not fatally, but certainly seriously. Further, as theological schools discover the mechanisms and invest in the technology to connect students, programs, faculty, and resources internationally, accreditation agencies will be forced to interact at an international level. How can standards designed for institutions in one region of the world be applied equitably in the global network?

The succeeding sections of this report will give attention to the historical development of distance education, the problem of definition, the role of technology, the shifts in teaching and learning perspectives, institutional and instructional challenges, and implications for theological education. The literature presents an exhausting array of questions and issues. In order to focus this report around matters that would be relevant to accreditation association concerns, the following questions were used to guide the research:

- What conceptual variabilities are suggested by the range of definitions commonly used as synonyms for distance education?
- What commonalities and differences between distance education and traditional instruction are suggested in the descriptions of distance education? Is distance education applicable only to particular disciplines, courses, issues? How is distance education described in relation to particular media and/or approaches that may or may not be seen in traditional modes of instruction? Should distance education and formal education be seen as separate entities, or as collaborating modes within a common frame of reference or theory.
- What administrative issues important to theological education are identified in the development of distance education (e.g., finances, faculty deployment and development, standards, resource allocation, coordination, communication, accreditation, and so on)?

- What instructional issues important to theological education are identified in the development of distance education modes (e.g., the integration of distance education with formal programs, challenges inherent in rethinking instructional design and motivation in relation to experiential learning, lifelong learning, nonformal education, faculty willingness to design new models of curriculum and instruction, and so on)?
- How will the internationalization of distance education affect theological education?
- In what ways, if any, is distance education reported to enhance or enrich ministry development? How will the development of distance education modes in theological education affect relationships between church and school?

Historical Development

Isaac Pitman offered shorthand by mail to students in England in 1840 (Holmberg 1960, 3). Charles Toussaint and Gustave Langensheidt initiated language teaching by correspondence in Germany in 1856 (Delling 1979, 13). "Cambridge University is generally credited with developing a formal university extension through the establishment of an extramural teaching program in 1873" (Rohfeld 1990, 1). Significantly, much of the development and growth of extension studies in England and Europe was in response to "demands from workers and from women" (Rohfeld 1990, 1; see also Wiesner 1983).

Through the 1800s, American universities and community groups adapted and created their own forms of distance learning. Distance education has precedents in the Chautauqua movement and the British Lyceum movements of the 19th century, where university professors, among others, found a ready market for their lectures in local communities across the nation (Rohfeld 1990, 2-3; Rossman 1995, 62). These movements made it possible for people to nurture an intellectual life based on touring outside lecturers and musical and theatrical presentations (Bender 1994). The establishment of a national postal service in the late 1800s provided university administrators and community leaders with another vehicle for reaching large numbers of people.
William Rainey Harper, the founding president of the University of Chicago, while preparing programs for Chautauqua, proposed a program of correspondence study for the university. The American people were ready for a system of education flexible enough to accommodate the frontier settlements of a rapidly developing nation. For Harper, correspondence study was the ideal organizational structure (Rossman 1995, 62). In 1892, Harper organized the university around "five coordinate colleges, one of which was the Division of University Extension. This division offered courses for college credit by lecture study, class study, or correspondence study. Hence, at the University of Chicago, extension was integral to the university's structure and mission from its beginning" (Rohfeld 1990, 10). Rossman suggests that the "claim that he is the father of distance education in the United States is credible" (Rossman 1995, 61). However, Harper was adamant that correspondence study was not a substitute for "oral instruction." He emphasized the inferiority of the correspondence model and the priority of the classroom and the direct encounter between the teacher and student. Not surprisingly, the correspondence program at the University of Chicago was disbanded in 1933 (Rossman 1995, 63). Unfortunately, some of Harper's attitudes and organizational strictures related to maintaining the superiority of the formal

program over education-at-a-distance persist as constraints on the continuing development of distance education.

Harper's vision and energy notwithstanding, the land grant universities were probably a more significant factor in promoting extension education throughout America. The signing into law of the Morrill Land Grant Act of 1862 guaranteed land for the establishment of universities in each state. By 1863, thirty-one states had provided land for universities. ". . . the main object of the colleges was to teach subjects related to agriculture and the mechanical arts, 'in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life'" (Rohfeld 1990, 12). The genius of the land grant system was, and is, service. As service institutions they could not escape their mandate to take knowledge to the people. This took various forms: expert consulting services to the State, public discussions, municipal reference bureaus, educational exhibits, conventions, and agricultural extension (Rohfeld 1990, 30-32).

> That the uniqueness of the American university rests in its threefold commitment to the English collegiate ideal of undergraduate teaching, the Germanic ideal of scholarship and research, and the American ideal of public service has been a widely accepted axiom among students of higher education. Public service requisites, originally engendered by the peculiarly American concept of state universities as beholden to their constituencies, were given both sustenance and soul by the Morrill Act of 1862. Through that marriage, a popular dimension was added to the elitist functions of disseminating knowledge to select groups and the pursuit of knowledge and truth for their own sakes. (Rockhill 1983, vii)

World War II forced an upsurge in the need for adults trained in specialized knowledge, linguistics and knowledge of cultures. In partnership with the military, universities established special classes and correspondence studies (Rohfeld 1990, 79). Following the war, the G.I. Bill made it possible for thousands of returning service personnel to go to college and changed forever the face of higher education. Through the 1950s, the demand for continuing education in the professions led to the construction of university residential centers, and the development of conferences on a variety of themes related to professional development. "The Kellogg Center for Continuing Education at Michigan State University in East Lansing was the first such facility and opened in 1951. During the 1950s funding cycle, the W. K. Kellogg Foundation provided funding for a total of nine residential centers" (Rohfeld 1990, 87).

Community development emerged as the theme for the 1960s as universities sought ways to have an impact on urban environments. Finally, in 1965, Title I of the Higher Education Act, provided federal funding for continuing higher education, offering states a way to support efforts to encourage lifelong learning (Rohfeld 1990, 125). The various educational experiments spawned during the foment of the 1960s gradually consolidated into such programs as Walden University (1970), New College (1973), and the University without Walls (1974) (Rossman 1995, 3). Through the 1970s, a declining 18-22 year old college population, and an increase in adult students, "supported the development of non-traditional educational and credentialing programs . . . These programs sought to recognize the learning acquired by adults as a result of life experience and to respect the complexities of their lives and schedules" (Rohfeld 1990, 153).

Charles Van Hise, president of the University of Wisconsin in the early 1900s, "declared a consensus among university leaders regarding the three functions of the university: instruction, investigation, and extension service" (Rohfeld 1990, 37). This effort was driven partly by the feeling of extension leaders that their programs were marginalized in the university. Consequently, they sought to link extension education with what were generally recognized as the indisputable functions of the university: teaching, research, and community service. It would be 80-90 years before institutions of higher education would recognize, more substantially, the need for, or value of, distance education.

Factors Affecting the Contemporary Developments in Distance Education

Advances in technology, the demands of an increasingly mobile and diverse population, economic realities, emphases on the democratization of education, dissatisfaction with traditional modes, concerns for institutional growth and/or survival, are among the issues that have sparked renewed interest in distance education through the 1980s and into the 1990s. Factors of schedule conflicts, costs, family responsibility and professional commitments have encouraged the development of distance education options, especially as adult students are less willing to be uprooted from their jobs or families for extended periods.

Distance education, and its accompanying technology, is attractive to higher education because it seems to address the challenges of declining enrollments, increasing costs, the potential market of adult professionals, pressure from corporations, institutional competition for faculty or increased sharing of faculty, and increasing global access to technology. Clearly, the emergence of the university without walls has been one of the more dramatic changes in higher education since the 1990s. "What is truly unique about distance education is the site of learning is transformed from a place to a process" (Rossman 1995, 9). The tyranny of time, place, and curriculum is gradually being broken. Today, hundreds of thousands of students are enrolled in Internet courses, universities are offering entire degree programs through the Internet, students from different universities are interacting with each other and with a variety of professors through technology. The Internet is opening education to all ages and groups of persons. "From 1870 to 1970 most of the systems were proprietary and the field was known as 'correspondence study' or 'home study' or 'external studies.' Hostility from the education establishment was rarely far from the surface. Today, most governments in the world are supportive of providing or considering introducing distance education and are studying its role as a complement to conventional provision" (Rossman 1995, 6). Distance education has become "a valued component of many education systems and has proved its worth in areas where traditional schools, colleges and universities have difficulties in meeting demand" (Keegan 1996, 4). As data services become more sophisticated and user friendly, distance learning services can only increase in scope and variety.

The growth of distance education reflects the persistence of social change in relation to the excluded learner, the decentralized learner, the professional in the field, the growing insistence on different forms of education, networking, the growing familiarity with electronic forms of communication, global interconnectedness, the pressure of business, church and professional sectors that schools do better, the proliferation of resources and information, the postmodern

insistence on community and pluralism. The pattern of collecting individuals in places where work, shopping, banking, school, and worship can be collective, is shifting to decentralization--to degathering (Martorella 1996, 35). As a consequence of the phenomenon of degathering, schools could become smaller and more specialized; students will be able to "shop" at several schools, combining options from the degree programs of several schools to make one degree; and learning modes will become more various--including various modes of distance education. Gates envisions that learning will be found in the connections among all the agencies that can contribute to learning (in Martorella 1996, 37).

Certainly, as information becomes more readily available, seekers no longer have to go to one agency that is postured as the source and controller of knowledge. Seekers can become shoppers (Patterson 1996, 61). We have witnessed in the past few years, a substantial proliferation of knowledge based industries: training and development, market research, software development, consultant services, research and development companies. Institutions of higher education do not have a monopoly on knowledge. The increasing interconnectedness and the developments in distance education mean that there will be an increase in the variety of things to be learned, an increase in the variety of ways to learn, and an increase in the variety of learners. To the extent that schools and faculty no longer enjoy a monopoly on knowledge and instructional services, and as a variety of agencies become involved in education, the roles and functions of educational providers are increasingly blurred. Traditional modes of higher education can no longer "claim the full-time commitment of students" (Morrison 1989, 7). Even a casual visitor to today's campuses can see that less than half of the student body is young. Conversations with these students would reveal that few are full time and many, if not most, are not in residence. Morrison (1989, 8) asserts that there are 6 challenges facing distance education in light of these factors:

1. The need to broaden the concept of distance education in order that it can enhance not only access to but success in learning
2. The need to move from an institutional to a systems level in planning, needs assessment and delivery
3. The need to develop a learning approach to organizational ethos and management
4. The need to develop a model for the appropriate use of technology
5. The need to globalize its vision
6. The need to balance quantity with equity in its contribution to development.

Amid predictions of availability of best faculty to everyone, networks of interdependence, democratization of education, global learning communities, universal information access; and despite the long history of distance education, the field of distance education is still emerging. Distance educators still feel marginal in institutions where the priorities tend to focus on classroom based models, preparatory modes of instruction, and the expectation that students and faculty will be full-time. As the numbers of adult professionals in education increase in the institution as a whole, as institutions become more interdependent, as faculty roles change, programs will change, and lines between traditional modes and distance education modes will blur. In a pragmatic environment where suppliers of instructional technology want to serve the

learning enterprise and where institutional planners are competing for students, quality issues and the need to develop a guiding theory for distance education will become increasingly important.

Definitions and Characteristics

Keegan credits a group he called "The Tübingen Group" (Keegan, 1996, 13-14) with clarifying the problems pertinent to the emerging field of distance education. Members of this group published over 60 research studies that reputedly laid the foundation of the field. The group dispersed in the mid-70s (Keegan 1996, 14), but the problems of definition and theory remain. Keegan (1988) admits that distance education remains a field without a theoretical framework. It would seem reasonable to assume that there are linkages between distance education, experiential learning theory, nonformal education, and the various efforts to define adult learning theory. However, it is more difficult to define distance education as a separate field that has more in common with other nontraditional modes of education. As early as 1988, Keegan called attention to the possibility of the blurring of the boundaries between traditional and distance education (Keegan 1988, 4). More recent literature suggests that a longstanding Instructional Paradigm (teacher and institution centered) is shifting to a Learning Paradigm (student and learning centered). If true, distance education and traditional education are more appropriately understood as modes within a more holistic theory of education that embraces a rich array of learning outcomes and contexts: from information acquisition to information processing, from assimilation to inquiry and decision making, from the development of cognitive ability to the maturing of the whole person, from individual to collaborative experiences, from classrooms to community centers, from regional to global interactions. Conceivably, as the boundaries become less distinct, both traditional education and distance education will be changed. Much of this development is predicated on the reality that students are at the center of the learning process, that learning is social and not just intellectual, that all of life is involved in learning.

Relatively little space is given in the literature on distance education to the issue of theory building. The shift from an Instructional Paradigm to a Learning Paradigm is variously observed and described; but the theoretical grounding is not well developed. Perhaps this contributes to the evident and considerable confusion over terminology and definition in the literature. Many terms are used, some claiming they are interchangeable, others claiming there are subtle but distinct differences between them: distance learning, distance education, open studies, remote instruction, correspondence study, home study, extension education, independent study, teaching at a distance, off-campus study, open learning, flexible learning, continuous education, distributed learning. "In the usage of the 1980s the term *distance education* covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless benefit from the planning, guidance, and tuition of a tutorial organisation" (Holmberg 1989b, 127). In 1982, at the Vancouver conference of the International Council for Correspondence Education, the term distance education was adopted as a universal term indicative of a recognized field of theory and practice (Thorpe 1995, 154).

If it were just a matter of synonymous terms, one could simply chose one. However, there are claims for subtle differences in usage that make each of these terms slightly different in application. These differences are affected by the relationships of the institution with the learners, the relationship of the faculty with the learner and the institution, the focus of the program (rural development, university without walls, corporate training), the types of material used (print media, computer based, Internet based, satellite delivery), the context (home, workplace). While Kaye feels that the terms need to be disentangled, "One thing is certain: the enormous diversity of systems , projects, and institutions that teach 'at a distance' makes it very difficult to furnish a definition other than in terms of a contrast to conventional face-to-face, classroom-based instruction" (Kaye 1988, 45). The following attempts at distinction illustrate the complexity and tension that still exist in the field.

- Holmberg notes that contrary to established perception, distance learning and open learning are not synonymous. Distance learning can, in fact, be closed learning--where choice and control are exclusively in the hands of the institution. Distance learning is generally based on two factors: pre-designed courses, and noncontinuous contact with professors and students (Holmberg 1989a, 2-4; 1989c)[2]. Open learning stresses learner autonomy, learner contracts, and learner controlled instruction. Open learning technically implies freedom from restrictions related to goal setting, access, and assessment.
- Distance education and open learning are described by Maxwell as two different concepts. "Distance education refers to a mode of delivery with certain characteristics that distinguish it from the campus-based mode of learning. Open learning refers to a philosophy of education providing students with as much choice and control as possible over content and learning strategies" (Maxwell 1995, 45). The burden of Maxwell's article is that distance education is often not student centered (evaluation and attendance policies managed by the institution and preplanned courses) and should be. By incorporating the open learning philosophy a stronger model could be created.
- Correspondence education is generally defined as the relationship of an institution with an individual student who receives print material at home. Remote instruction, on the other hand is defined as the relationship of an instructor with groups of students not necessarily in the same location.
- Garrison (1989) reviewing the variety of definitions that existed for distance education proposed three criteria that would define the field but also allow sufficient flexibility should the field develop. "(1) Distance education implies that the majority of educational communication between (among) teacher and student(s) occurs noncontiguously. (2) Distance education must involve two-way communication between (among) teacher and student(s) for the purpose of facilitating and supporting the educational process. (3) Distance education uses technology to mediate the necessary two-way communication" (Garrison 1989, 222).

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[2]Asynchronous communication: a term that designates that teacher and student are separated in time and distance; Synchronous communication: a term that designates face-to-face communication with instructor.

- Swift (1992) proposes that distance education can be described in two modes: the "industrial model" based on pre-designed materials (print) and mundane technology," (broadcasting) and a model that uses sophisticated technology (telecommunications and computers) and encourages interactivity.
- Filipczak defines distance learning as "an event or a process that involves direct two-way communication between people; it doesn't include traditional correspondence courses or the CBT [computer-based] software you got in the mail. It *does* include audioconferencing, videoconferencing and docu-conferencing, a relative newcomer to the distance-learning arena that allows many people to collaborate on a shared document via computers separated by a few feet or several time zones" (Filipczak 1995, 111).
- ATS (Standards, June 1996: 10.2.1.4) defines extension education in relation to independent study: "This type of extension education provides for-credit courses for individuals engaged in external independent study . . . where regularly scheduled, in person conversations with faculty or other students are unlikely to occur. Such courses typically employ printed, audio, video, computer, or electronic communication as primary resources for instruction. . . . [Not more than one-third of the total credit required for completion of an ATS-approved basic degree can be earned by external independent study]."
- Keegan's preliminary effort to define distance education included factors such as (1) the semi-permanent separation of student and teacher; (2) planning, materials preparation, and student support services still under the auspices of an institution; (3) the use of technology to convey the content; (4) provision of two-way dialogue; and (5) the more or less absence of the learning group (Keegan 1988, 10). Rumble (1989) objected that Keegan's definition was too narrow, citing that the issue of separation is not necessarily a true distinction, technology is not the only delivery system, and the institution is a potent factor. In traditional education the teacher teaches, in distance learning the institution teaches. The materials, he argued, are prepared by a collective (Rumble 1989, 13-14). Rumble did agree with Keegan that distance education must have two way communication in order for there to be integrity in the educational process (Rumble 1989, 15).
- Rumble offered a new definition: Distance education must involve a teacher, students, materials, and a contract that defines roles between teacher and students and the institution. Distance education can involve face-to-face (video in real time) or independent instruction; the student is given guidance, access to instruction in a two way communication; learners are separated from the sponsoring institution; materials can take several forms--not necessarily designed exclusively for distance education--the requirement is that they be suitable for the learning event (Rumble 1989, 18-19).
- Keegan's subsequent attempt at definition (1996) was based on his study of how the various terms have been used, a search for common linkages, present usage and concerns, and historical precedents. He favored the term "distance education" and called for a more precise definition characterized by the following:
  - the quasi-permanent separation of teacher and learner throughout the length of the learning process (this distinguishes it from conventional face-to-face education);

- the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services (this distinguishes it from private study and teach-yourself programmes);
- the use of technical media--print, audio, video or computer to unite teacher and learner and carry the content of the course;
- the provision of two-way communication so that the student may benefit from or even initiate dialogue (this distinguishes it from other uses of technology in education); and
- the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals rather than in groups, with the possibility of occasional meetings, either face-to-face or by electronic means, for both didactic and socialization purposes. (Keegan 1996, 50)

Implicit in this definition is the assumption of teacher-learner separation--but not permanently; the assumption of individual learning and autonomy, but not exclusively; and the use of technology--but not exclusively, with increasing variety and more often than not, interactive. There are also factors to be considered such as the degree and locus of control and authority (faculty, institution, or student); purpose (individual or social development); centralized or decentralized curriculum; loosely integrated into the university or an integral part; residential component required or not required. Rossman adds to the complexity by observing that "No longer can distance education simply be referred to as education that takes place when there is a distance between the learner and instructor. In this definition, the distance being referred to is geographic, but distance might just as easily be cultural or emotional, with quite different pedagogical implications" (Rossman, 1995, 3-4). Bewildering indeed.

Traditionally, distance education has been characterized by the separation of the teacher from students throughout most if not all the learning experience, the use of technical support media, the presence of an institution that prepares materials and establishes student services, and the general absence of a learning group (Curran 1992, 55-56). But is distance education a unique form of education in its own right, or is it a variation of the traditional mode? Holmberg suggests that if it is unique, it can operate on different principles and develop courses that fit the medium and greater diversity in target groups. However, if it is just the same as having students in a class, no matter how that class is organized, then that which applies to a formal class can apply to distance education (Holmberg 1989b, 128). Complicating matters further is the fact that distance education no longer has a distinct pedagogical format (typically correspondence study). The multivariate technological possibilities have greatly expanded the options available to distance education. A definition of distance education as a collection of e.mail correspondence courses clearly won't do. Most definitions of distance education stress the importance of mediated communication (technical support, print media, audio technology) between instructor and students. Distance education is no longer just a distribution of materials. It involves two way communication of some form--forms that are increasing in variety. Nor is distance education simply a teacher driving 100 miles to teach a course. There is some hope that it will be characterized more and more by active student involvement, quality design, appropriate administrative support, and effective teaching and learning strategies (Laabs 1997).

Wilson suggests that a new paradigm that is emerging around distance education. He uses the term "Continuous Education" to describe this trend and, in so doing, links distance education with lifelong learning (Wilson 1997). As business and industry recognize the need for a life long commitment to learning and development, the notion of 2,3 and 4 year degrees may become obsolete–reserved for those fields where continuing education is not mandated–fields such as pastoral leadership, or theological education. "For 'Continuous Education' to be successful, it will have to replace the traditional modes of distance learning such as satellite video, teletraining keypad response systems, and interactive video-conferencing with a much more robust educational model. The goal is to provide the distance learner with as much of the classroom experience as possible. In this model of interactive multimedia distance learning, one creates a virtual classroom with students connected together over a network that carries data, voice and video to the students' computers. Each student has access to multimedia materials created for the course and delivered via CD-ROM or across the network (Wilson 1997, 13).

In summary, common components of distance education, variously defined are: the majority of communication is noncontiguous, there is two-way communication between teachers and students; education is usually technologically mediated; the patterns of institutional control over the learner are changed; reflection is at the heart of the process; self-assessment of personal or professional development is expected; learners, in varying degrees, have a stake in the planning of their programs and the nature of the learning experiences undertaken. Of greatest importance is the fact that the current definitions of distance education all affirm the requirement of interactivity, the presence of a learning community, the presumption that learning is lifelong, the break from behavioristic models of course design and teaching,[3] and the central role of technology.

But we're not done yet. Chris Dede (1996b), an educational technology futurist, suggests that distance education in all its various terms is shifting to a new model called distributed learning which he describes as "the use of information technologies outside the school setting to enhance classroom activities" (Dede 1997a, 13; also Dede 1997b).[4] The definition assumes that no one institution can manage or afford the sophistication now possible in distance education. Course development and access to resources now requires a distributed network of agencies. One supposes that collaborating institutions would provide quality resources, share costs through monthly fees, help with marketing, share existing clients, deal with copyright issues as a consortium. However, higher education in all its forms is notoriously competitive. Consortia of

[3]To counter criticisms of superficiality and lack of precision, distance educators attempted to design materials and delivery systems based on the more rigid programmatic approaches common to behavioristic theory. Some of these efforts are still evident in the practice of distance education. But, in Thorpe's judgment, behaviorism has not delivered and has "limited value where understanding of complex subject areas is concerned" (Thorpe 1995, 155).

[4]Eleey and Comegno (1999) describe how University of Pennsylvania uses collaborations with external agencies to enhance its distributed learning programs.

seminaries, for example, are emerging; but, for the foreseeable future, there will likely be greater collaboration between faculty and departments than institutions.

Dede argues that at least three developments are driving the emergence of distributed learning: (1) knowledge webs that allow widespread access to information and contacts; (2) virtual communities, virtual libraries, virtual classrooms, and virtual exhibits (e.g., virtual museums); and (3) opportunities to apply information learned in synthetic or simulated environments to real-world settings. Further, the literature suggests that this particular nomenclature implies both a structure (networked agencies) and a learning process.

> Distributed education is not distance education, because it is based on the creation of a learning dialogue between participants in collaborative learning groups--no matter the participant's locations or time in which they choose to interact. The method is based on creating and sharing documents among a learning group. While currently text based, it still incorporates multiple learning pathways, through the use of higher level activities, visually pleasing presentations, use of small group interaction, and multiple conversational opportunities (the 'Classroom'/the 'Cafeteria'/the 'Office', etc.). The course material is set out in modular form, each module with a set of readings, questions and assignments requiring response from individual students or from small groups. Students write their response and send them to the virtual class meetings by a process of database replication which distributes all documents to all class members, including the teaching staff. Each student is expected to comment constructively on approximately 20% of the other group members (sic) presentations as a means of promoting interaction and maintaining the teaching dialogue. (Seagren and Watwood 1997, 319)

Dede adds,

> How a medium shapes its users as well as its message is a central issue in understanding the transformation of distance education into distributed learning. The telephone creates conversationalists, and the book develops imaginers who can conjure a rich mental image from sparse symbols on a printed page. Much of television programming induces passive observers . . . . As we move beyond naive 'superhighway' concepts to see the true potential impact of information infrastructures, society will face powerful new interactive media capable of great good or ill. Today's 'couch potatoes' . . . could become tomorrow's 'couch fungi,' immersed as protagonists in 3-D soap operas while the real world deteriorates. The most significant influence on the evolution of distance education will not be the technical development of more powerful devices but the professional development of wise designers, educators and learners. (Dede 1996b, 30)

Distributed learning advocates stress the need for educational experiences that will move students through the processes of access, assimilation, and appropriation. Learners must be helped to "make sense of massive, incomplete, and inconsistent information sources. Weaving constructivist usage of linked, online materials into the curriculum and culture of traditional

educational institutions is the next stage of evolution for conventional distance education" (Dede 1996b, 26).

The catalogue of definitions suggests that, though the field is not coherent, there is nonetheless activity and development in distance education. However, it still remains, for the most part, the "Cinderella" of higher education.

Persistent Criticisms of Distance Education

Primary criticisms of distance education are the lack of face-to-face interaction, reliance on technology, and superficial learning experiences. The persisting belief is that the only valid education is that which takes place on a campus "under the teaching" of a professor. "The common perceptions of extension education, whether called by its older name or by the newer categorical nomenclature, *distance learning*, are too often condescending. 'How can we make our extension courses as close as possible to the high standards we have on campus?' is a seemingly benign question. But it reflects an often uninformed presupposition that the campus standards must surely be superior" (Ward 1994). The literature shows the continuing frustration of distance education organizers concerning:

- Faculty. There is no good reason for faculty to be invested in distance education; they have poor understanding of what is required in distance education; faculty are less than enthusiastic for off campus students and education at a distance.
- Administration. The administrative procedures remain bureaucratic and therefore hard to manage from a distance. In many instances, distance education is not well supported by the general institutional administration.
- Student Services. Institutional services are still oriented to the student on campus. Communication about programs assumes that students are on campus to receive that communication.
- Lack of creative funding. If the program relies on technology, the up front costs in distance education are considerable.
- Purpose. The mission of distance education is not clearly understood. Do distance education programs exist to support the university, to serve the public, to bolster an academic elite?
- Lack of quality control and inferior programming. Formal modes may simply be exported to distance education sites. Technology may be used badly.
- Internationalization. Lack of understanding of the importance and the implications of the global reach of distance education.
- The university's criticisms of superficiality. The image of nontraditional education is that students in distance education are "experience rich but theory poor; while students in traditional programs are theory rich, experience poor" (Miller 1987). Since many assume that one has to choose, the resources and time are given to the theory rich modes.
- The effects of program proliferation. Administrators may see distance education as forcing the university to extend itself too broadly and to lose its sense of identity as an elite center for those most capable.

The literature also shows the criticisms of formal education by distance education proponents, and the differences in perspective the criticisms reflect:

- Formal education focuses on teaching rather than learning. Universities are criticized for focusing on research rather than teaching--and learning.
- Formal education focuses, somewhat naively, on younger students while lifelong learning targets older, part time learners.
- Formal education typically targets the audience that can afford the tuition. Distance learning offers universal access.
- Formal education relies on teachers transmitting knowledge. Distance education is more learner centered and participatory.
- Formal education persists in the belief that it has a monopoly on knowledge. Distance education is seen as more flexible and able to interact with business and government and other agencies in the construction of learning options.
- Evaluation procedures are taken more seriously in distance education than in formal education. It is believed that distance education is more responsive to program critique and more adaptable.
- Though the criticism can be made that distance learning distances the student from the faculty, the criticism can be made equally of formal education that faculty are out of touch with students. In distance education, interactivity is seen as a requirement, not an option.

In spite of the difficulties and often justifiable concerns for quality, Ward argues that:

> In many situations extension education can provide learning experiences that are superior to the equivalent experiences on a campus. Distance learning can provide learning opportunities that are closer and more intimately linked to the practical applications and the realistic contexts which make learning more meaningful. Those who plan and manage distance learning should generally start with the assumption that what is intended is a superior and more intense learning opportunity--certainly not some make-shift substitute. (Ward 1994)

Dillon and Cintron (1997) cite studies that suggest that the mode of instruction does not substantially influence learning. However, they add, the conventional modes of education are limiting in that they are not as responsive to individual learners, they are bound by space and time restrictions, they limit access to international resources. An inference from these observations is that educational experiences can be situational experiences. The argument is not which mode is better, but which mode will do the job in this situation? It is not the traditional over against the nontraditional. It is more a question of: Is the approach I am using the best approach for this subject matter, these students, this context, and these outcomes? The question: Can distance education deliver the same quality of education as classroom based models? is unanswerable, and probably irrelevant. The real issues are found in what distance education is responding to that is challenging longstanding notions of the nature of education and educational process.

What is the larger frame of reference which embraces both formal and nontraditional modes as part of a whole ecology of education? It is important to understand how distance education cuts

across traditional notions of education; how, unless it is simply a duplication of the formal in a nonformal setting, it will challenge traditional notions. Paying attention to distance education in theological education is paying attention to a minefield, because many faculty in theological education operate in ways that suggest little appreciation for the complexities of learning, and the possibility that the "key" in education is really what students do, not what teachers do.

Shift from An Instructional Paradigm to a Learning Paradigm

> Higher education is facing a paradigm shift of historic proportions. The extensive development of the world's telecommunications infrastructure . . . has placed powerful tools in the hands of educators, to access incredibly diverse global sources of textual, visual, and audio-based information on virtually every subject. Perhaps more importantly, the World Wide Web is beginning to provide a medium for faculty to offer their own expertise and create Web-based courses for students anywhere in the world. (Barnard 1997, 30)

In spite of the criticisms and resistance, higher education institutions are accommodating distance education. However, they tend to do so from within an "instructional paradigm." One apparent effect of the emerging confidence of distance education is the shift in orientation from teaching to learning. Even the debates about delivery systems are increasingly oriented around the notion of learning. Adults who come with different life experience and professional backgrounds bring with them different expectations about teaching in relation to learning.[5] With an emphasis on learning, comes an increased understanding of the role and purpose of experiential learning, the value of nontraditional and nonformal modes of learning, and prior learning. "The conception of distance education as product, where the teacher's primary activity is to 'package' knowledge as course curricula, is firmly rejected in favor of a conceptualization of distance education as a process which facilitates self-directedness and perspective transformation" (Gibson 1992, 170).

The concern in much of formal education is expressed less in terms of these factors and more in terms of how to ensure successful transfer of knowledge, and concept formation. Until recently, higher education institutions and faculty could see themselves as the sole providers of the kinds of knowledge required by a discipline or service. However, "In the information-communication age,

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[5]Alley (1996) outlined 10 features of student learning as opposed to instructor centered teaching: (1) Student discovery of knowledge rather than faculty transference of knowledge. (2) Continuous assessment of both student performance and the course. (3) Learning includes student episodes, not just scheduled class lectures. (4) "Student performance is observed by others versus private assessment by instructor." (5) Students and faculty work together to define the questions that shape the instructional process. (6) Students are active participants rather than passive recipients. (7) Students learn collaboratively. (8) Fulfilment of responsibility in the academic environment is a function of student learning, not just faculty workload. (9) Faculty guide students in the processes of discovery and problem solving through both helping them to structure pertinent problems and questions, and coaching them in how to address problems and questions. (10) The university support systems undergird and create all learning environments–within and beyond classroom.s.

students must apply knowledge to solve problems instead of regurgitating memorized facts. For one thing, there is already too much information available to remember most of it. Faculty and students will need to know how to locate, retrieve, and analyze vast data made accessible through interconnecting networks" (Howard-Vital 1998, 196). Many of the models of choice for contemporary educational practice stress the importance of meaning making and reflection on experience, concept formation and critical thinking and, in turn, signal a shift from behaviorist notions of teachers as dispensers of knowledge and students as passive recipients.

Distance learning can force a shift in thinking about educational design. Questions such as: what do learners know now, what do they need to know, and what conditions will facilitate learning are appropriate to a learning paradigm. An instructional paradigm typically will ask questions related to subject matter: what content is important, how can it be organized, how can it be presented (Freeman 1994, 9-10). One can only assume that it is becoming obvious that the walls between learner and information are breaking down, that the classroom is no longer the only place where education takes place. What follows when the classroom is no longer the sacred place for education? How do faculty redefine their role when they are no longer the sole holders and dispensers of knowledge? How do we form interactive communities of learning when the playing field is now so diverse? How do we conceive of resources, and how do we evaluate resources? How is academic credit envisioned? How is learning assessed? How can we support and facilitate lifelong learning? The possibility exists for integration of disciplines in a way not previously possible. However, investment of time and money and different skills and attitudes will be necessary to bring this about.

Distance education is one factor that is forcing several issues which, taken together, could provide an outline for understanding the emerging learning paradigm:

1. *Learning as a social phenomenon requiring the development of learning communities (Repman and Logan 1996).* Students learning alone have no one against whom to measure their ideas and assess their insights. Some formal education is based on the notion that the student "sits under the teacher's tutelage" to get the right perspective. In these situations, deviant, or probing questions, that go beyond a certain notion of what is right are unwelcome, discouraged, or responded to and dismissed. Teacher regulation or teacher shaping of knowledge is dominant in these forms of instruction. Freire's critique of the "banking model" in this regard is well known. If education is a social process involving interaction for the purpose of personal development, concept development, understanding and meaning, then traditional and nontraditional modes could conceivably see themselves, not in competition, but in a partnership that supports a larger vision for education.

The final report on the re-developed standards for ATS stated that: "Theological schools are communities of faith and learning guided by a theological vision . . . Their educational programs should continue the heritage of theological scholarship, attend to the religious constituencies served, and respond to the global context of religious service and theological education" (Theological Education 1996, 23). "A theological school is a community of faith and learning that cultivates habits of theological reflection, nurtures wise and skilled ministerial practice, and

contributes to the formation of spiritual awareness and moral sensitivity. Within this context, the task of theological scholarship is central. It includes the interrelated activities of learning, teaching, and research" (Theological Education 1996, 25). If the intent of these statements is to embed outcomes in the context of communities of faith and learning, member schools who take these statements seriously will be forced to discuss the issue of learning as a social phenomenon and the attendant pedagogical implications.

Anderson and Garrison noted the seeming paradox that critical inquiry is a function of learner autonomy, but it is also at the same time grounded in social and communal activity (Anderson and Garrison 1995, 186)[6]. If critical thinking, reasoned discourse, and personal transformation are fostered in community, to what extent can distance education promote the development of learning communities? If teaching is the facilitation of learning, and if learning is fostered in social contexts, distance education must involve the student in a relationship that promotes learning.

> Many educators tend to view the learning process in individualistic terms. Sometimes they even think of classrooms as collections of individuals who will be engaged in learning largely as independent and isolated experiences. Such educators make extremely poor distance learning planners, even for the designing of individualized instruction. Learning is essentially a social process that is facilitated and deepened through interactions with others. The difficulty, of course, is to plan flexibly and creatively and to be able to visualize the many interactive possibilities that exist in the learner's real world. . . . Content-related interaction with other persons (not necessarily only those who happen to be similarly enrolled) is almost always possible if the designers of the instructional experience are imaginative. (Ward 1994)

There is persistent concern that distance education does not promote community (see Carroll, et al 1997). Kemp (1999) observed recently that the real issue is how distance education supports and allows for the sustainment of the participant's real communities. Students are already in communities that the formal education experience either disrupts or ignores. Distance education experiences can maximize the benefit of the real communities of which students are a part. "In the final analysis, the big question raised by *Being There* is *Being Where*? Traditional campus-based seminary education has a track record that includes much success. However, most of us live

[6]Anderson and Garrison (1995) reported findings from 160 respondents to a survey distributed at two Canadian universities, followed up with 18 interviews, and observation of 12 teleconference classes, completed by a focus group interview of 7 participants concerning the perception of how well audio/teleconference courses stimulated critical thinking (the majority of courses were from the Social Sciences and Humanities). Comparisons with independent study courses revealed significant differences in perception. Not unexpectedly, the audio/teleconference courses, when planned to allow sustained interaction among teachers and students, could successfully support the formation of a community of inquiry to a greater degree than teleconference courses based on technology alone and manipulation of materials, without the intention of interaction. "It is the critical community of learners that can encourage questioning and skepticism. To take the risk to challenge ideas and explore new conceptions and perspectives requires encouragement and support. For most students, development of critical thinking abilities is not facilitated very well or efficiently during independent study" (Anderson and Garrison 1995, 197).

and serve in contemporary North America. If our institutions are going to be true to their missions, they must take seriously *where* they understand formation to take place. For example, is the church such a bad learning community that the campus community has to replace it? Why do we want or mandate "family" or community" experiences on campus when students already have communities. Why not leave them in their existing communities and see the school in a partner role. When the attention shifts from the culture of the schools to the culture of the students, one finds that the concerns about non-traditional education become rays of hope for the effective accomplishment of the missions of our schools. If we stop insisting on students being *there* and give more attention to *where*, we are well on our way to greater effectiveness in ministry training" (Kemp 1999).[7]

It has been noted already that contemporary definitions of distance education include some form of interactivity or two-way communication. The criticisms of distance education as an individualized, depersonalized medium are no longer completely valid. Increasingly, technology is being developed that serves this intent (Garrison 1997; Wiesner 1983; Baron 1996; Holmberg 1985). In the literature, distance learning is seen as primarily technologically driven. This stimulates concern in relation to ATS's definition of theological schools as communities of faith and learning. It is not impossible to create communities apart from the campus, but it does require intentionality. Increasingly, distance education is seen as a collaborative effort and the mechanisms now exist to make this possible. "In most distance-education programmes, there exist regular or occasional opportunities for group meetings with tutors, teachers, and fellow students, and great care is taken in planning the pedagogical objectives of these meetings, precisely because they are a costly resource which is not taken for granted" (Kaye 1988, 48).[8]

Computer conferencing software allows students to have their own password, their own "in-box," where they can receive messages from the instructor or other students, an account number by which they can gain access to courses (Norton and Stammen 1990, 26-27). Norton and Stammen (1990) reported on 3 pilot projects with this technology with satisfying results.

Seagren and Watwood (1997) describe the virtual classroom: students and instructors do not have to meet at the same time--their respective communications are stored and can be accessed anytime; students can communicate with one another--globally. Some actually assert that "Poor student performance cannot be disguised. There is nowhere to hide in the virtual classroom" (Seagren and Watwood 1997, 320). The virtual classroom ideal is to support collaborative learning among heterogenous groupings employing problem solving and higher order skills. Other literature describes relationships in cyberspace under such terms as the virtual college or the

[7]Kemp suggests that ATS sponsor a "being there" study and call it "being where." Researchers would observe how the distance education administration functions, visit extension sites, go to the homes of the students and watch them in their work, and ask how this learning experience is related to other aspects of their lives.

[8]Examples are given of telementoring and teleapprenticeship--peer tutoring facilitated by real-time technology which lessens the effects of distance and separation (Dede 1996b, 26).

virtual café--where a social environment is actually brought on-line. Linkages of several classrooms, even from around the world, are possible through computer mediated technology.

Community is formed in the interaction of persons with common interests and values. Interpersonal proximity, though desirable, does not eliminate the possibility of the learning community when learners are at a distance. Community can be found in different places and fostered through different means. "The Whole Earth 'Lectronic Link (WELL) is an online service that provides access to people and ideas, and . . . is considered by many to be the birthplace of citizen-based virtual community" (Rossman, 1995, 35)[9]. In effect, "electronic neighborhoods" are being created around shared interests (Rossman, 1995, 36). The concept of the community may broaden to include resources from outside the school--based on a network of scholars and other support persons.

A less optimistic perspective is presented by Brown and Duguid who argue that, though the Internet can facilitate the continued development of existing communities, it is not a good medium for the formation of communities. ". . . the Net can provide a powerful impression of interactivity and exchange whole in practice denying both. . . . A distal learner, for example, may achieve access to public forums used by a campus class, but the campus community's private, off-line interactions will remain both inaccessible and invisible. . . . We suspect that, though Net interactions offer profoundly useful means to support and develop existing communities, they are not so good at helping a community to form or a newcomer to join" (Brown and Duguid 1996, 17). An assumption undergirding this argument is that students' previous involvements in on-campus, off-line experiences that provide the students with language, customs, and artifacts make the sustainment of a community of learners–even an on-line community of learners–possible. Without these prior experiences, they argue, a community cannot form on-line.

Obviously, it is a mystery as to how community is formed in classrooms. The fact of a classroom does not guarantee community any more than a distance learning chat room will. Vital elements in the formation of learning communities seem to be: people who assume responsibility for their own learning, and who ground their learning in social contexts. Participation is essential--people must share ideas and values, reflect mutually on experience, form learning partners and cohort groups, even in cyberspace. Attention must be given to the quality of interaction. Facilitation will be required to move the interaction beyond chat to engagement.

In a review of literature on distance education commissioned by ATS, Patterson reported that,

> Both affective and cognitive learning appear to improve when interaction increases. Participation in a learning group alone will increase cognitive learning outcomes; groups that are directed by a tutor or supervisor increase results even more. Even in computer-mediated courses, which are much more immediately interactive than other distance education mediums, a coordinator increases the persistence of discussion, and knowledge

[9]Its address is www.well.com/about.html

> about network partners also increases interest in interaction. The best instructional motivator and the best instructional support for both cognitive and affective goals appear to be interaction with a teacher. (Patterson 1996, 67)

The literature is overrun with information about advances in technology. In the last decade, the emphasis has shifted from a preoccupation with hardware to educational process dimensions. Accessing information and delivering it effectively are not sufficient. Information must be shared, analyzed and applied through dialogue and examination of differing perspectives. This happens seldom enough in face-to-face classrooms; though the jury is still out, there is evidence that it might be possible in distance education with the advent of interactive and interconnected communication technology.

2. *The role of technology in the learning process.* Many in formal education look at distance learning as the delivery of content through technology rather than seeing it as a system where attention is being paid to educational process. Is it sufficient to ask how technology can help me deliver my content? Or my lectures? Can technology actually help us rethink our educational processes? Enhance interaction? Promote collaboration? Enrich higher order thinking? Promote understanding? But clearly there is work to do in developing these processes. David Merrill, an outspoken critic of computer based training, while admitting that new technologies are promising in their potential, affirms that information is not instruction. "There is the belief that all you need for learning is information and collaboration: Put enough people on the Web, and learning will happen." The Internet promotes surfing, he says, which can generate shallow learning. "There isn't enough guidance and structure there for someone to learn a systematic body of knowledge" (in Zemke 1998, 37-38). A related problem to Merrill's complaint is the real or illusory feeling of being connected to "expert" knowledge sources. If the Internet is used unwisely, the student may uncritically accept the solutions and opinions of someone or a group deemed an "expert source." In effect, reliance on the Internet as a source of information could lead to the abandonment or underdevelopment of those processes that will lead persons to think through issues and problems on their own. Without these competencies the carryover into social action and social and organizational change is hindered.

Technology is not going to resolve the problems endemic in higher education. There may be interactivity, but to what extent is the interaction productive? Teachers will still need help in learning how to guide instruction and promoting higher levels of thinking. Students will need help in learning how to evaluate sources and interact productively. In short, students will need to learn how to learn as part of their experiences in distance education.

3. *Lifelong learning*. There still exists a basic incompatibility between the notion of lifelong learning and the structures of education in our institutions. "If taken seriously, the concept of lifelong learning is a revolutionary idea, perhaps the only significant educational idea of this century. Those who advocate it are arguing in favour of the implementation, on a systems basis, of a number of subsidiary ideas: accessibility, institutional openness, needs-based learning, competency-based education, co-operative education, mastery learning, paid educational leave, and credit for prior learning" (Morrison 1989, 6). If lifelong learning is accepted as an underlying

presupposition in distance education, what are the implications--especially as seen by accreditation agencies--for the matters of residency, transfer of credit, credit for experience, and assessment?

4. *Active or experiential learning*. These terms among others are used to describe experiences where the role of the learner changes from being less passive to being more of an active participant. Adult learners become colleagues and responsible participants in the process. Jackson and Caffarella identify the main elements of participative modes of learning as: "Problems that people identify; people who accept responsibility for taking action on a particular issue; and colleagues who support and challenge one another in the process of resolving the problems" (Jackson and Caffarella 1994, 11). Students do more than listen, there is less emphasis on transmission of information, and greater emphasis on the need to develop higher order thinking skills and capacities. Students are part of a community where they explore ideas, implications from shared experience and their own attitudes and values. Of course, once experiential learning is admitted as part of the learning process for adults, faculty and administrators are forced to recognize the validity of assessment of prior learning–credit for experience. To simply dismiss prior learning from a broad range of experiences as "watered down content" is now less educationally defensible. If prior experience cannot be dismissed, then evaluation criteria for its evaluation is needed. Not surprisingly, an industry has emerged around the issue of accreditation for prior learning (APL). In 1986 a Credit Accumulation and Transfer Scheme (CATS) service was established to help students, employers, professional groups, and educational institutions assess prior experience in relation to receiving credit for that experience (see Forman and Nyatanga 1997, 8).

5. *The reflective practitioner*: Persons who are reflective practitioners are generally aware of major issues inherent in their field, actively inquire into the practices that shape their experiences in that field, and recognize that reflection on these practices fosters professional competence. Reflective practice, when a fundamental part of distance education experiences, employs such processes as: description and analysis of an experience in terms of what can be learned from it; evaluation of the values inherent in the experience; formulation of implications for continuing practice; generalization of the learning to new situations. As they do this, persons should become aware of their own learning processes (metacognition)--and aware of the variety of learning processes they can use in reflection on experience (see also Schön 1990, Burge 1996). In an academic setting, the reflective practitioner links the processes derived from research and inquiry to the processes of reflection on experience common in professional development. Part of the distance education experience will be the development of skills for the effective employment of these processes.

6. *Teaching effectiveness*. "Learning can occur without teaching, and teaching can occur without learning" (Holmberg 1989a, 17). The literature presents abundant evidence that faculty preparedness on several levels is essential for teaching effectiveness in distance education. Competencies are described in relation to a number of personal and instructional skills in education settings--regardless of mode. "Concerns about quality of instruction, unfamiliarity with

distance learning, and misperceptions of the use and benefit of technologies are key issues" (Cullman, 1996, 2).

7. *Adult learning*. Seminaries are increasingly occupied with the education of adult professionals; and distance learning is profoundly concerned with adult learning principles. Understanding learner needs (in both content and process), providing for active engagement in the learning process, integrating learning experience with adult social and professional roles, along with developmentally appropriate outcomes, informs instructional process in both formal and nontraditional modes. Adults have been passive recipients of predigested materials with the result that learning is often superficial and unconnected (Hayes 1990, 33-34; Kasworm and Yao 1992, 2). However, educational planners cannot assume that all adults are ready for learning that is participative, experiential and characterized by higher order thinking processes. Adult students looking for degrees while working may not respond to opportunities to participate in the planning of instructional materials and experiences, they may not welcome time consuming engagement in learning community, and may actually favor the typical patterns of assigned reading, assigned writing, assigned tests and memorization. If we desire educational experiences to be more than content delivery, we will also have to help adults develop skills in group process, self directed learning, lifelong learning, critical capacities, decision making; and provide experiences where they can participate successfully in a variety of opportunities in learning, interaction, and development.

8. *Holism in the learning process*. The literature of both distance learning and theological education describes education as more than content acquisition or skill development. The re-envisioned Standards of ATS also support a view of learning that is more than information transmission, and simple application. A sampling of statements includes: "Learning should foster, in addition to the acquisition of knowledge, the capacity to understand and assess one's tradition and identity, and to integrate materials from various theological disciplines and modes of instructional engagement in ways that enhance ministry and cultivate emotional and spiritual maturity" (3.1.1.3 Theological Education, Spring 1996, 25-26). "Instructional methods should use the diversity of life experiences represented by the students, by faith communities, and by the larger cultural context" (3.1.2.2 Theological Education, Spring 1996, 26). "Theological research is both an individual and communal enterprise, and is properly undertaken in constructive relationship with the academy, with the church, and with the wider public" (3.1.3.1 Theological Education, Spring 1996, 26).

> Theological education that takes these holistic purposes seriously must strive toward effective concept attainment in its students, and must also concern itself with the elusive realm of noncognitive development. It is at this point that the findings of 'no significant difference' for distance learning falter. Distance education outcomes that deal with the noncognitve domain have not been studied. This is not a weakness of distance education research only; the affective domain is an elusive concept in the traditional classroom as well. Although there have been several attempts to develop taxonomies of affective learning, the difficulties in conceptualization, in definition, and in measurement continue to hamper such attempts. However, most educators agree that 'deep learning' involving

> values, attitudes, and beliefs does not occur unless the affective domain is also involved. (Patterson 1996, 66)

To limit these understandings of "deep learning" to either the formal modes of education or distance education modes limits the stated purposes of theological education. Formal education and distance education will serve the enterprise of theological education better if seen as modes encompassed by a guiding theory of education that can support their mutual efforts. The shift in emphasis from an instructional paradigm to a learning paradigm seems a promising trend in the literature. However, the issues implicit in a learning paradigm will continue to be cause for much debate. Faculty who win tenure in the relatively stable structures of academia are not likely to move quickly into new modes of instruction; students who see the degree as a receipt for knowledge received, will resist modes of instruction that may make degrees obsolete; institutions that view education as a delivery system and who need to have their "clients" close by so that knowledge pathways can be controlled, will resist modes that disperse resources and learning all over the world (Brown and Duguid 1996). Yet, if the shift can be accomplished, educators and administrators will be able to use technology as a means or as an enhancement, rather than as a solution to the increasing number of problems threatening higher education, or as that which guarantees learning effectiveness.

Emergent Technologies

It is not readily apparent how the human community will be changed as a result of diversified modes of education–whether or not they are supported by new and emerging technologies. Bork (1997) described persisting problems in education that tend to defeat any advantages from technological advances: the problem of universal education with an ever increasing world population; the tendency to prepare materials and learning experiences to fit some image of a universal student; continuing dominance of the lecture and the textbook; and the tendency to confuse information acquisition with learning. The literature offers abundant descriptions of technological developments in interactive software, two way communication capacity, the ability to identify weak spots in learning as the program develops; but the increasing capability of computer assisted instruction to address persisting problems in education may prove to be a utopian dream of the technologists.

As early as 1989, Mary-Alice White identified 12 trends in educational technology. Trends of continuing interest to this review include:

- The persistent gap between the technology of educational delivery systems and the design (or lack) of educational content. She coined the term TITO: trivia in, trivia out. "Metaphorically speaking, we have tigers in technology but mere insects in instructional content. We can use marvelous electronic systems for filing information, for storing information, for retrieving information--but they are no better than the information itself" (White 1989, 3).
- The need to change curriculum so that it can in fact integrate effectively with new technologies.

- The need to teach Information Age skills, while schools are being judged on 19th century skills. White argues that schools are largely word centered, that teaching and evaluation are word centered. Schools will need increasingly to use both word centered and visual centered modes of instruction (White 1989, 5).
- The need for appropriate evaluation procedures. The emerging field of learning using new technologies will create increasing problems in modes of evaluation. What types of evaluation will fit a school system where the word is not the only delivery mode? What types of evaluation are possible through computer assisted, computer enhanced media?
- The pressure on schools from other sectors (e.g., business, churches) to deliver a better product for the dollar. Experiments in distance learning and the use of technology often accompanies this pressure.
- The uses of technology to allow students the opportunity to participate in their own learning. White gives the example of a science program that works in concert with National Geographic Society where children work with teams from other schools to perform research--which is sent into a central data bank. Children in schools are being exposed to resources in unprecedented ways. Similar creative ventures will emerge in higher education.

Technology, it is suggested, may make the university as the place where information is kept and disseminated, obsolete. Communication links are becoming faster and the data transfer more legible. Audio-conferencing, video-conferencing (a closed communication system connecting computers each equipped with a camera), teleconferencing (one way video with two way telephone connection between participants and instructor), e.mail, chat rooms, Internet curriculum, Web applications, electronic messaging, real time group conferencing, video phones, speaker phones, electronic chalkboards, bulletin boards, listserv (a software function on the Internet that allows the formation of a discussion group related to a given course), accessible data bases, on-line reference librarians, increasing transfer of existing print material to digital form, are changing the way knowledge is disseminated and utilized. Search engines are improving, information professionals have created information directories, and professional associations and information networks are forming around particular interests (Barnard 1997, 30; Sherritt and Benson 1997, 3). Today, consumer electronics makes it possible to have a "studio" in the classroom or anywhere. All that is needed is a video camera for the computer, a projection TV, "real time" software,[10] and one or more groups of people situated anywhere in the world where access to technology is possible and affordable.[11]

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[10]SmartClass2000 IDL is an example of an interactive program that allows teachers to interact in real time with students at a distance. It works with live video and can support multiple remote sites. For information, access www.robotel.ca

[11]Wilson describes his experience at Rensselaer Polytechnic Institute (RPI) where "the Studio classroom is one in which the emphasis, is on the student's activity rather than on the professor's. Studio classes incorporate extensive use of integrated hands-on activities with small group problem solving and discussion sessions. The instructor takes on the role of a mentor in the Studio classroom, supporting the students as they learn interactively using multimedia modules on PCs" (Wilson 1997, 13). Current status information is needed on a development

The technology that supports much of distance education has increased access to satellites; copper wiring is being replaced with fiber optic cable, and a world wide Integrated Systems Digital Network (ISDN) is gradually being implemented (Romiszowski 1993, 3)[12]. The technology of distance education has moved from exclusively print media, to radio and television broadcast, to audio and video conferencing, and now into a fourth generation encouraged by developments in digital computer based systems. This has fostered greater dependency on the Internet with attendant advantages and problems. Though it provides wide access to information, information on the Internet is often bogus. The instructional wisdom is to ask: Who created the Web site? When was it last updated? How does the Internet provider reference his or her sources? What bias or slant is apparent? What cross references with other sources are available?

Clearly, the emergence of better hardware and software is a relatively small piece in the issues confronting education. How we develop suitable resources for various modes of learning, the definition of an educational theory that can guide processes of instruction in many modes, the nature of faculty and student support, the evaluation of learning and instruction, effective management of any consortia that are created, and the accreditation of the various forms of education that will emerge are enormous challenges–probably greater than, and certainly preliminary to, the challenges presented in obtaining and using available hardware and software.[13]

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reported by Wilson. The LearnLinc distance learning environment was developed through collaboration between AT&T and RPI and was "designed to combine proven interactive learning methodology with the immediacy of video conferencing and the power of multimedia content. . . . A LearnLinc classroom is based on the Studio classroom in which students work at networked multimedia PCs. The workstations have access to the multimedia and other computing resources for the course and also provide multipoint video, audio and collaborative software. Students have a live video window on their screen in which they can see the instructor of other students in any of the linked classrooms on the network. It is this video connection that allows and instructor to mentor the students the students and facilitate the discussions from a distance, as if they were walking around the room to various student workstations" (Wilson 1997, 14). The LearnLinc approach seems to be predicated upon a notion that the instructor needs to have high control of this environment "to ensure that the students are following along with the course content" (Wilson 1997, 14). In this program, the student clicks on an icon to raise his or hand. How suggestive is it that sophisticated technology is being used to support a more rigid educational paradigm?

[12]ISDN technology is a telephone link capable of handling voice, data, and video transmissions. Subscribers receive signals on their phone lines--which are more generally available. The cost effectiveness of this technology is increasing as costs for fiber optics and cable drop, as computer networks have burgeoned, and as its availability increases (The Economist 1995, 54).

[13]Gilbert (1996) identifies several obstacles to improving teaching and learning through technology. These include: (1) Inadequate access to equipment, software and support services. (2) Institutional planning that focuses on technology rather than on teaching and learning. (3) Lack of coordination in support services. (4) Distrust and poor communication among all levels of institutional personnel. (5) Universal access may be limited if it means that the access is to information and specialized interests only. (6) Resistence of faculty. (7) Lack of information about and examples of good education mediated by technology. (8) Intricacies of legal use of intellectual property.
(9) Lack of a comprehensive faculty reward system.. (10) Expectations for the quality of products is higher than the product is able to deliver.

It must be ever remembered that "Technology does not change education, people do" (Ely 1996, 10).

Though there are those that dismiss technological advances as yet another temporary fad, Van Dusen and Ely reflect the positively cautious attitudes that are pervasive in the literature.

> Will the infusion of technology make institutions more productive? The answer will lie in how these technologies are applied. If they are purchased as bolt-ons to existing processes, improvement in the ratio of output to investment is unlikely. If, however, they are purchased as part of a strategic plan to restructure the institution, improvement in the ratio is possible. (Van Dusen 1997, 4)

> In many ways, it is the technology that is driving the distance education movement rather than the needs of educational problems that exist. The most successful distance education programs in the World are those that respond to real needs; that offer an alternative to learning which would otherwise be denied or would be prohibitive in terms of cost and time. . . . The least successful are those that embraced technology without a clear understanding of <u>who</u> was to be served, with <u>what type of instruction</u>, and most important of all, <u>for what purpose</u>. Many of the least successful programs have been in the United States. (Ely 1996, 2)

Dede is more blunt in his perceptions of the relationships between learning and technology.

> As an educational technologist, I am more dismayed that delighted by how this enthusiasm about the Internet is being expressed. Some of my nervousness comes from the 'first-generation' thinking about information technology that underlies these visions. Many people see multimedia-capable, Internet-connected computers as magical devices, silver bullets to solve the problems of schools. They assume that teachers and administrators who use new media are automatically more effective than those who do not. They envision classroom computers as a technology comparable to fire: Students benefit just by sitting near these devices, as knowledge and skills radiate from the monitors into their minds.
>
> Yet decades of experience with technological innovations based on first-generation thinking have demonstrated that this viewpoint is misguided. Unless other simultaneous innovations occur in pedagogy, curriculum, assessment, and school organization, the time and effort expended on instructional technology produce few improvements in educational outcomes–a result that reinforces many educators' cynicism about fads based on magical machines. (Dede 1997a, 13)

Important questions need to be asked of the emergent technology: Does it make sense educationally and financially? Will faculty and students have access to it, be instructed in its use, and be given the necessary helps to design course materials for the medium? To what extent can it support a community of learners? How accessible will the technology and the education it serves be to developing nations? What is the responsibility of nations with access to those with limited

access? How problematic is it that those with limited or no access are cut out of or cannot participate in the learning opportunities access may allow?

Dede asserts that "second generation" thinking in technology does not typically make the mistake of seeing computers as magical, but it still hasn't come to terms with the changes required in instruction. Computers too often reinforce teaching as telling and learning as listening. "In this view, the computer serves only as a fire hose that sprays information from the Internet into learner's minds. Even without educational technology, classrooms are already drowning in data" (Dede 1997a, 14). In a similar way, William Brody, president of Johns Hopkins University, cited several areas of change for universities in the 21st century in his inaugural address. Observing that uncontrolled information is a burden, the ways we organize and access information and the distinction between information and knowledge will become more important. What is needed is better access to knowledge not just more information. This challenge will force changes in the ways in which libraries function, the structure of universities, and the patterns of educational process. Education will become a partnership between several sectors of society–serving a range of needs and interests.

The emerging technologies hold promise of enhancing all modes of education. But there are numerous issues that must still be addressed as distance education moves into the forefront of the thinking and planning of educators and administrators.

Specific Institutional and Instructional Challenges Related to the Development of Distance Education

A number of specific academic issues are identified in this section related to the development of distance education.

Finances

Financial motivations for the development of programs of distance education include (1) escalating tuition and the perception that distance education is less costly for the student; (2) the perception that the massive student market available to distance education will generate substantial income for the institution; (3) the perception that the generation of courses through distance education will reduce costs related to faculty and administration.

Bremner (1998, 16E), in a recent USA Today article observed that on-line courses aren't likely to lower tuition because the medium is more labor intensive than the traditional modes. In other words, if educational administrators have to acknowledge and accommodate the extra time demands occasioned by distance learning--the nature of contracting and academic load will have to change. She noted that distance education courses are not necessarily less costly for students. The phenomenon that students will pay more for these courses is explained as students feel they get "more bang for their education buck." Students feel they interact more with their professors and fellow students; faculty can incorporate visiting resource people to a greater degree because the boundaries of time and geography have been removed; and students can share ideas with other

students from all over the world. Universities are now offering entire degree programs on-line. "The explosion in on-line education is helping non-traditional students get college degrees: people with hectic work schedules, disabilities or young families." But the reality is, Bremner points out, that on-line education increases faculty work load; that demands are greater on course preparation, and the amount of time interacting with students increases. All of these factors contribute to the hidden costs of distance education for the institution.

McCollum cautions that as institutions begin to use technology to enhance learning, costs will escalate. ". . . technology spending has increased so quickly in recent years–and so haphazardly, with faculty members, students, and technology administrators all participating in the chaos--that many institutions have a hard time just identifying their costs, much less planning for them. The COSTS project (http://www.its.colgate.edu/kleach/costs/costs.htm), a survey of technology expenses at more than 100 institutions, is intended in part to offer administrators a look at how other colleges and universities are classifying their technology spending" (McCollum 1999, A27 - A30). McCollum observes that once technology spending was out of the leftovers pieces of the budget pie; now such items as acquisition, service, and replacement of support systems, are demanding more and more of the budget Few universities actually have a plan for the development of the infrastructure for distance education, much less a plan for funding it (McCollum 1999, A28).

Green (1997) suggests that institutions treat developing technology as a business venture–one that pays close attention to real and recurring costs. "Only when educational institutions view distance education as a fully capitalized business will they begin to understand the options and opportunities, the real risks and real costs" (Green 1997, 1) The burgeoning nontraditional market is creating a demand for distance education–but with different expectations from the previous generation. In this market, technological mediation is expected. However, the field is still developing and real costs are difficult to predict. What is the actual shelf life of hardware and programs? How will faculty be reimbursed? What are the advantages and disadvantages of using students to defray costs rather than hiring on-site staffing for the support of distance education. What are the real costs of course production–employing a range of design options still not understood by most faculty and academic administrators?

Is distance education cheaper? As yet, this question seems impossible to answer because of vast differences in types of media and applications. Clearly, the initial investment in technology will be considerable and the inevitable and rapid obsolescence of technology guarantees that institutions will have continued costs in upgrading these systems. Costs related to the infrastructure for distance education may increase. Tuition may not decrease, but travel and living costs for the student could. Costs for faculty development and travel will increase. Effective course design will require funding. However, the returns from generated student income and donations may in time offset these costs--or maybe not.[14]

[14]Apparently, $30 million in federal grants (congressionally mandated LAAP grants–Learn Anytime, Anywhere Partnerships) are available for the development of innovative distance learning programs in higher

Library Resources

The library has been traditionally the provider of information resources for the curriculum. Implicit within the requirement is that these resources must be accessible to the learning community. Distance learning faces a challenge of accessibility. "One of the major obstacles to distance education has been the matter of providing library resources to dispersed students and faculty" (Rossman, 1995, 6). Cooperative arrangements with other libraries are possible--but the management of these arrangements can become onerous. State or region wide library cards, consortium membership, toll free access, online catalogue connections to other databases, using the Internet to gain access to resources, establishing specialized collections in various locations are already common alternatives (Rodrigues 1996). Kirk and Bartelstein observe that the vision for the Web as a free, worldwide library is a long way from reality (Kirk and Bartelstein 1999, 40). Library professionals are becoming more involved in the planning and implementation of distance learning strategies. In 1998, for example, the Association of College and Research Libraries (ACRL) revised its guidelines for campus libraries to include stronger language related to the necessity to provide resources and services for distance education equivalent to those supporting on-campus programs (Kirk and Bartelstein 1997, 40).[15]

As libraries are digitalized, persons can have ready access and interaction with a number of different types of databases. What this will mean for the actual facility remains to be seen. Libraries may evolve into clearinghouses and distributors of information services (Targowski, 207). Virtual libraries, where the print medium no longer dominates, may emerge to service virtual classrooms and virtual universities. Computer, digitalized holdings are seen as a solution to the problem of an exploding information base; but the problems of judgment of data, and useful and useable access remain (Kuhlthau 1996). Students will be connected to resources from multiple centers and may also use video conference links to access various multimedia terminals. "It may sound like science fiction . . . but what is first developing in North America, East Asia, and Europe can in time be extended to every continent: on-line access to all the world's important information by every scholar in the world. For some countries that may be a dream for a future century, but many students and faculty already participate in its beginnings" (Rossman 1992, 61). Terms such as World Brain, world mind, global encyclopedia, world university recall the efforts of Comenius in the 17th century to form the Great Didactic--the collection of all knowledge.

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education. The grants are available only to partnerships created among institutions, agencies, businesses and other organizations. For information, access: www.ed.gov/offices/OPE/FIPSE/learnany.html

[15]At this writing, a number of Web-based resources were identified related to libraries: Journal of Library Services for Distance Education http://www.westga.edu/library/jlsde/ ACRL: Guidelines for Extended Campus Library Services, 1998 revision. http://www.ala.org/acrlguides/distlrng.html Library support for Distance Learning http://www.lib.odu.edu/services/disted/dersrcs.html Distance Learning Section of the Association of College and Research Libraries http://ecuvax.cis.ecu.edu/~lbshouse/home.htm

Apart from questions of effective access and productive use of such a knowledge base, who would want to be the editor of such a project![16]

The difficulty created for libraries in distance learning are the numbers of students who use libraries not at their host institution. Formal contracts and borrowing arrangements become more important as the need for access to resources increases. Different experiments are underway to deal with problems of access. An increasing number of databases offers journals on line. Many libraries have the capacity to access electronic catalogues--sometimes world wide. Libraries can now purchase from an on line serials library only those journal articles that faculty are using (Kiernan 1998, A21). As books become prohibitive in price, students will be able to access chapters on line and on line texts at a reduced cost. Some publishers offer a service where faculty can tailor a text from several texts, and create an on line package of materials (Rossman 1992, 103). The goal for most libraries is seamless and easy access to resources. The challenges in achieving this goal relate to speed of access, protection of intellectual property and other copyright issues, providing instruction not only on access systems but also on evaluating information (see also Derlin and Erazo 1996). "Library activities that focus on specifics, where students can find the right answer if they follow directions, don't prepare them well for real life. A few generic principles coupled with some regular experience in making choices and evaluating information are much more effective" (Weisburg and Toor 1996, 88).

How do students know where to begin in a world where massive amounts of data from thousands of libraries and other resource bases are accessible? Does our concern to "cover content" make any sense at all in the world that is emerging? What changes will emerge in the way we view and use resources in distance education as the power of search engines and the efficiency of indexing mechanisms increases? How will we help learners make needed judgments among data, and develop the capacity for critical thinking and judgment. In light of expanding resources and information, it is possible that learning assignments in the future will have to be more self selected and not required by faculty.

It is said that "Henry David Thoreau won his argument with the president of Harvard to the effect that the invention of the railroad had destroyed the rationale for the strictly local library borrowing

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[16]Apparently this project is not simply a cyberspace fantasy. Rossman described what could become the greatest research project of all time. "Technocrats and scholars are now at work on bits and pieces of what may become the most important research project in history, one that may involve nearly every university and every scholar: the computerizing, indexing, and organizing of all knowledge. This massive scholarly project, underway but not yet systemized or coordinated, can provide one of the most important foundations for a new and more adequate system of global scholarship, research, and higher education.

This process is taking place in data bases dispersed in computers all over the world. As such data bases become interconnected and cross-indexed, the next step may be the emergence of a comprehensive organization of human knowledge that will continually learn and adapt . . . It may in time begin to take down the national and other boundaries between universities and scholarly disciplines, and also between the scientist-scholar and the average educated person, while at the same time cherishing the unique contributions of each culture and nation. We may thus stand on the threshold of an era in higher education when any educated student can he empowered to assume a more significant share in the testing and advancement of knowledge" (Rossman 1992, 81-82).

privileges imposed by the university, just as the invention of printing had made it unnecessary to continue chaining books to the walls" (Rossman, 1995, 6). The Internet may make actual libraries unnecessary.

Gates compares the current Internet to the Oregon Trail of the 1800s. It is evolving rapidly and will continue to evolve, becoming increasingly interactive (Gates 1995, 95).

> On the information highway, rich electronic documents will be able to do things no piece of paper can. The highway's powerful database technology will allow them to be indexed and retrieved using interactive exploration. It will be extremely cheap and easy to distribute them. In short, these new digital documents will replace any printed paper ones because they will be able to help us in new ways. But not for quite some time. (Gates 1995, 113)

Gates speaks of the ease of use of books and their current computer accessibility, but predicts that it will be a decade before documents can be read easily from computer screens. "The first digital documents to achieve widespread use will do so by offering new functionality rather than simply duplicating the older medium" (1995, 113).

However, before we begin burning our library cards, a visit to one of several monster bookstores in any one of our communities will show that, even in an online world, there are still thousands of books available and desired on every subject imaginable--even on computers and the Internet! The world clearly isn't quite yet ready to go completely on-line.

<u>Faculty Deployment and Development</u>

> Peter Drucker, in a speech at the USC faculty club, noted that faculty had been tremendously inventive of ways to avoid the positive impact technology could have on education. He suggested that faculty had managed, through their reliance on the lecture method of imparting information, to nullify successfully the impact of Gutenberg's invention of printing for 400 years! As faculty perhaps intuitively senses, a university without walls quickly becomes one in which the lecture method is made obsolete or, at the very least, radically transformed. Although laboratories and studios for the performing and fine arts may continue to be needed, the formal space of the large lecture hall will have limited utility in the future. For the social sciences and humanities, the most appropriate venue for teaching and research is the world beyond the campus. This is particularly true for the advanced-degree applied research that characterizes many distance education institutions. (Rossman, 1995, 6)

The expected retort, of course, is that institutions of higher education have outlasted many trends. Will the institutions remain long after the wave of technological innovation has passed by–that is, assuming it will pass by?

More faculty are being asked to participate in off campus instruction. To what extent does this affect faculty and administrators' perceptions of the roles of faculty in teaching, research, student

advising, and so on? Caffarella et al studied 22 faculty from a western university to discover their perceptions of the effects of off campus involvement on student interaction and learning, method used, and changes in responsibilities (Caffarella, Duning and Patrick 1992, 157). The research findings were discussed under three headings: changes in role of instructor, professional and personal satisfaction, and the importance of support systems.

Role. Off campus teaching was perceived as inherently different from on campus teaching. Faculty noted the expectations of off campus students that faculty be collegial. Students were generally seen as asking more aggressive questions related to professional roles. Cohort groups formed generally naturally and were viewed as a positive factor. They created a dynamic that called for more group participation and less lecture. In off campus settings, faculty saw their role as facilitators rather than as presenters of information.

Professional and Personal Satisfaction. Faculty reported that satisfaction was diminished by continual involvement in off campus instruction. It interfered with professional interactions with colleagues on the main campus and their own scholarly work. It upset their regular schedule and created a lack of personal time even though it was integrated into their regular load.

Support systems. Important support systems were identified as scheduling, help in getting equipment, and on site services. Faculty in this study did not want the institution to have total control over the design and implementation of materials.

The conclusions offered in this study were: off campus teaching commitments should be viewed differently from on campus commitments and should be weighted differently in faculty teaching load. Support systems should be created to organize the details of travel and information about the location; technology should be user friendly; procedures should be in place for smooth handling of student administration; a staff member should be readily accessible for off campus situations; and institutions should provide faculty development that deals with the specifics of off campus instruction.

In a research study to determine the competencies required by faculty for distance education, faculty most often asked for training in the use of technology, ideas for course design (they learned that simply delivering lectures in distance education formats was not effective), and ideas to promote interaction with and among learners, how to give feedback, and collaborative skills in interfacing with site personnel, technical advisors, and learners (Thach and Murphy 1995). In another study, competencies were seen to revolve prominently around attitudinal and process dimensions (Wilson 1991). Clearly, the need in faculty development is more than in just how to use technology. Experiences need to be developed to help faculty understand and use effectively several different forms of teaching and learning.

In the lists of competencies identified for distance education, attitudinal or relational skills feature prominently (support of learner, enthusiasm for this medium of instruction, encourages learners, compassionate, available for questions, helpful, patient, and so on). The process competencies included: interactional capability, cooperative learning skills, conversant with a broad variety of teaching and learning approaches, communication skills, skill in feedback, expertise in knowledge area, promptness in responding. Promptness and feedback from faculty were cited as the most significant factors for distance education students.

Kochery (1997) identified the predominate areas for faculty development at the University of Minnesota as strategies for interaction and feedback (such as questioning, discussion, active learning), and the design of lectures for television. Johnson (1985) found that faculty attitudes toward distance education were generally expressed in relation to the "real world out there," the need for different methods, the presence of different students, and diminished energy levels. In another study, faculty adjustment to distance education related to preparing material with a view to learning rather than transmission, guiding students into self-directed modes of learning, creation of learning experiences, feedback, and the necessity of dialogue. Teachers will have to be more alert to process, not just to the selection and dissemination of content (Beaudoin 1990). Olcott (1996) listed the issues for faculty as time investment, cost, energy, lack of training, and the fact that distance education experience was not included in tenure review. Olcott and Wright (1995) describe needs in faculty training, support and tenure issues related to distance education.

With the different role demands (the teacher in distance education becomes a mediator and mentor, a supporter of learning events), different time expectations, and the general lack of administrative support in many schools, it is no surprise that faculty resist involvement in distance education. The bottle neck in the implementation and growth of distance education may not be the cost of technology, but faculty adaptability, and the willingness of administrators to develop contracts that include various modes of instructional involvement and the different demands educationally of these modes.

Faculty support and development is necessary if institutions want them to be involved in distance education. There is general agreement that there has to be support from top administration for faculty development for it to be effective. Cook (1995) reports on action taken by the University of La Verne, California to build support structures for faculty involvement: involve more full-time faculty (it is generally the lot of part time/adjunct faculty to get these assignments); redefine faculty workload and assess the concept of service in relation to workload, tenure, and stipend; create new support positions (faculty liaison, department associates, senior lecturers to work with full time faculty). Baird (1995) recommends hands-on workshops for faculty on distance education technology and procedures and learning styles. He suggests peer "round tables" for distance education faculty and, possibly, WEB sites and listservs for the sharing of information and ideas (Baird 1995).

Cullman (1996) in a paper on faculty preparation for interactive television learning experiences, made the point that traditional classroom work does not prepare faculty well for distance education experiences. "In a traditional classroom setting, faculty usually work by themselves to prepare their courses. However, faculty who teach interactive television courses often have to update their skills in current technology, plan courses differently, and work with distance education staff to prepare and deliver courses" (Cuffman 1996, 1). The problem applies broadly to distance education. The nature of course preparation is different, the technology requires specialized skill, the nature of the interaction is different, the expectations related to learning are not the same as the expectations related to teaching. Any institution wishing to expand its options in distance education, will have to give serious attention to faculty development--and to the hiring of faculty who are able and disposed to this work.

However, faculty development in relation to distance education must not be consumed with training in the use of technology. The search for a theoretical educational framework to guide and embrace the various modes of instruction suggests a larger vision for faculty. Boyer, in noting that the history of higher education affirms three fundamental roles of the professor: researcher/writer, teacher, and public servant, suggests that contemporary society is not well served by institutions that define scholarship in one way, whether that be research, teaching or service. Institutions must deploy the various talents of its faculty more creatively, and avoid rewarding research and publication over teaching or service. "We believe that the time has come to move beyond the tired old 'teaching versus research' debate and give the familiar and honorable term 'scholarship' a broader, more capacious meaning, one that brings legitimacy to the full scope of academic work. Surely, scholarship means engaging in original research. But the work of the scholar also means stepping back from one's investigation, looking for connections, building bridges between theory and practice, and communicating one's knowledge to students. Specifically, we conclude that the work of the professorate might be thought of as having four separate, yet overlapping functions. These are: the scholarship of *discovery*; the scholarship of *integration*; the scholarship of *application*; and the scholarship of *teaching"* (Boyer 1990, 16). Boyer's model implies that education is about more than information, and that instructional settings and systems do not adequately support more comprehensive definitions of scholarship.

Course Design/Instructional Design

Course development in distance education is described almost uniformly in relation to technology[17]. However, though a powerful medium, the Internet and other computer mediated

[17]Sources that offer a databases of courses on the Internet: WWW Courseware Development, wwwdev@listserv.unb.ca; http://database.telecampus.com Sources giving ideas on how to develop courses for the Internet; or courses that use distance learning technology (Albrektson 1995; Murphy, Cathcart and Kodali 1997; Dickinson 1997; Ellsworth 1997; Ehrhard and Schroeder 1997; Trentin 1997; Starr 1997; Graziadei, Gallagher, Brown, and Sasiadek. 1998; Mikovsky 1997; Findley and Findley 1997; Hannafin, Hill and Land 1997; Warschauer 1997; Cahoon 1998; Hall 1998; Hirumi and Bermudez 1996; Vassileva and Deters 1998; Kroder, Suess, and Sachs 1998; Kubala 1998; Barnes and Lowery 1998; Rose 1998; Gilbert and Moore 1998; Dede 1996; McLellan 1997; Gibbs and Fewell 1997; Kochery 1997; Ravitz 1997; Wilson 1996; Educational Leadership, Vol. 56 Number 5 February 1999); Delivery systems described and evaluated (Chen 1997; Willis 1992b;); At this writing, functioning web sites that offer resources for distance educators include:
http://www.educationindex.com/distance
http://www.usdla.org
http://www.nucea.edu/main.htm
http://www.caso.com/index.html
http://netways.shef.ac.uk/index.htm
http://www.csu.edu.au/education/library.html
http://edie.cprost.sfu.ca/~rhlogan/bm dl.html
http://www.westga.edu/library/jlsde
http://ecuvax.cis.ecu/~lbshouse/home.htm http://www.salsem.ac.at:80/csacl/progs/disted/progres.htm

resources are still more often tools for conveying information. Ward's observation from 1994, and the impression from contemporary literature, is that their use in distance education for learning and higher order processing and fostering of learning communities is still in its infancy.

> Although electronic communication technologies offer whole new categories of possible learner interactions, the technologies are all too often employed in non-creative ways. The tendency to assume that teaching is telling causes the interactive communications to be a matter of questions-in/answers-out. (Ward 1994)

To what extent is it possible to conceive of course and instructional design that is not utterly dependent on technology? Certainly, contemporary definitions of distance education as interactive, and developments in technology that can facilitate two-way and/or group communication, are encouraging developments for those of us who view learning as a social process, express it in developmental and transformational terms, and encourage the interweaving of experiential and cognitive processing, or higher order thinking dimensions. But to what extent will technology ever be able to deliver on the capacity to promote interactivity and the processing of knowledge?

Contemporary literature in instructional design for distance education reflects the opinion that what makes a course is good or bad is how well it is designed and delivered, not whether the instruction is in a classroom or at a distance; and articulates the conviction that education is about learning, about more holistic student development, about effective and informed access to knowledge, about the facilitation of learning communities, about the development of the capacities for both the processing and use of knowledge, and about responsible action. Though one wonders why these convictions could not apply equally well to both formal or conventional modes of education and to distance or nontraditional modes, representative comments expressed in relation to distance education include:

> Distance education revolves around a learner-centered system with teaching activity focused on facilitating learning. The teacher augments prepared study materials by providing explanations, references, and reinforcements for the student. Independent study stresses learning rather than teaching, and is based on the principles that the key to learning is what students do, not what teachers do. It is a highly personalized process that converts newly acquired information into new insights and ideas. The institution's function, and the task of its instructional personnel, is to facilitate and enhance that process--despite the distance--to achieve optimum learning outcomes. (Beaudoin 1990, 21)

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http://www.cisnet.com/~cattales/deducation.html
http://www.access.digex.net/~nuance/de/index.html
http://talon.extramural.uiuc.edu/ramage/welcome.html
http://homepage.interaccess.com/~ghoyle
http://alabanza.com/kabacoff/Inter-Links/education/distance.html

> The curriculum is already overcrowded with low-level information . . . Using information infrastructures as a fire hose to spray more information into educational settings would make this situation even worse. Without skilled facilitation, many learners who access current knowledge webs will flounder in a morass of unstructured data. (Dede 1996b, 26)

There is no shortage of literature on studies related to course design and the use of various methodologies. Generally the studies reflect a need to demonstrate that distance education is not inferior in its results to formal education; and demonstrate that distance educators, probably moreso than faculty in exclusively formal education contexts, accept the need for a design that promotes interaction and the development of conceptual skills.

Patterson (1996) in her review of the literature for ATS, observed that studies of the effectiveness of correspondence education (since the 1920s) generally conclude that students perform as well as or better than their counterparts in more traditional settings. Studies of the effectiveness of radio, television, teleconferencing, audiocassette delivery systems show the same result. She indicated that the research on computer assisted or computer facilitated learning is still emerging, though there seems little significant difference in learning effectiveness--except among students with reading and writing difficulties and poor study habits. Though students report that interaction using interactive technology is more satisfactory, there can be a sense of information overload and frustration with the triviality of much of the communication.

A study that compared students in distance education and students in face to face instruction at the National University of Mexico demonstrated a general trend that students in distance learning were more meaning oriented and more involved in their learning; students in face to face courses more utilitarian and instrumental--courses were a means to an end (Figueroa 1992).

In the late 1980s, three colleges in Virginia received a grant to develop a “thinking skills project” for distance learners. The definition of thinking skills embodied practice in problem solving and evaluating and using information (decision making). The design was based on the premises that the development of thinking skills requires practice with feedback, that distance education students and faculty rarely meet face to face, that discussion would be infrequent, that probing thought processes would be more difficult because the interactions are delayed. The designers developed a strategy for teaching thinking that involved written responses to structured problems followed by feedback in the form of the probing of possible alternatives and helping students to examine the way they evaluate situations. Students were given opportunity to relate to other students through mail or video or phone. Sachs’ article (1991) provides the description and an outline of the curricular approaches used in the project. No details were supplied concerning effectiveness of the design.

The effectiveness of using audioconferencing in courses at the Graduate school of education at University of Toronto over many years, generated 5 principles (Burge and Snow 1990):

1. "The organization of the students' learning activities must be relatively detailed but also flexible." Flexibility was allowed in student choices and in opportunities for students and instructors to take time for interaction.
2. "Relationships between the learner and the professor, the learner and the librarians, and the professor and the librarian should reflect a learner-centered view and therefore be collaborative in nature."
3. "Responsibilities for the progress and success of a course should be defined at the outset of the course and then maintained throughout the course."
4. Technology should be chosen for reliability and ease of use.
5. Key learning processes should include analyses of thinking-in-progress, critiques of experience, written papers, reporting on small group activity, informed discussions with faculty and peers.

Thorpe identified experiential learning theory (Kolb) and the reflective theories of Schön and others as a more promising way forward in the construction of learning experiences (Thorpe 1995, 156). The need to process both the content and one's experience allows new learning to be related to a deepening structure of concepts and meanings (Thorpe 1995, 157). Thorpe reported on findings from two courses designed around a more reflective paradigm that demonstrated the positive benefit of having students step back from practice for reflection; that interaction with a tutor stimulated critical reflection; and that assessment can provide a powerful mechanism for reflection. In the courses, students were required to pay attention to their own learning processes as well as the content. When reflection was emphasized students reported that they read differently, took notes differently, and, in general, approached their learning differently.

Reports also show the "darker" side of efforts in course design for distance learning. Kaye and Rumble (1991) summarized persistent criticisms of distance education teaching approaches: (1) The limited opportunities for discussion between students and instructors and other resource people. The diminished quality of discussion experiences can be exacerbated where the persons involved in facilitated the discussion are different from the persons who prepared the material. (2) Materials are often inflexible in relating to learner needs. Because they are designed for a wide range of learners, the material is too generalized, and once the teaching event has started there is little opportunity or willingness for change. (3) The materials tend to be costly to produce. This creates a tendency to enroll as many as possible in learning events, and to re-use the material for more years than suitable.

Instructional design, envisioned in relation to a more coherent theoretical framework of the "learning paradigm," is an emerging area in distance education. The traditional role of teachers who dispense information contained in textbooks is changing. The varied relationships of teachers and students, the relationship between students and materials and context and delivery systems is seen more and more as a systemic process--an interactive process. One would hope that the tendency to think that what will work with one group (or culture) will work with another is diminishing. The key to long term effectiveness in course design for distance education will not be found in simply taking courses to new settings and replicating them.

> The key fallacy is the belief that any learning experience can simply be picked up whole and transported to some other location and situation. The lively circumstances of the new context--a student's personal and vocational experiences, for example--are thus ignored. The way we teach one place, we can teach anyplace seems to be the watchword. Distance learning becomes nothing more than transplantation of the most ordinary of campus-based instruction. (Ward 1994)

Common *design factors* in the literature included: more focused units of study, active participation, dialogue, procedures for discerning learner needs and assessment, instant feedback, advance organizers, learning guides, self pacing, interpersonal interactivity, tutorial assistance, practice and reflection, choices, alternate tracks, cross integration of content, contextualization, occasional integration with the traditional curriculum. *Learning activities* described for on line use included: seminars, learning teams, small group discussions, case studies, working groups/action teams, role plays and simulations, debating teams, peer learning/cohort groups, social interaction (the "online/virtual café"). *Approaches to design* included: problem centered--or active learning, case study/problem based learning, cognitive processing, mutual inquiry, subject centered/structured curriculum, teacher selected activity and curriculum, scope and sequence developed from predetermined objectives, planned dynamically in context with teacher and students interacting, focused on the development of the student in a more holistic sense. *Communication factors* included: use frequent changes of pace, draw persons into the discussions, give concluding summaries and make use of advance organizers, control the "verbal traffic," foster a democratic climate and create the sense of a "shared space," give attention to the pacing of the interaction and the learning (Willis 1992, 37).

Weisberg and Toor aver that distance education practices established in the 19th century will not serve well schools that are part of the 21st century world. "Numerous library media specialists have already adopted resource based instruction as the most effective way to prepare lifelong learners. Regular experience with a multiplicity of resources is obviously essential to successful information management. However the enormous amount of recoverable data, the speed at which emerging technology becomes fully developed, and the uncertainty of what is yet to come require that these resource based units be represented as part of a new curriculum--the Information Curriculum" (Weisberg and Toor 1996, 87). The Information Curriculum will develop the skills needed to select, interpret, and use information, to move "effortlessly between subject disciplines," and to access resources from a variety of formats. The Information Curriculum "needs to be incorporated into all subject areas as teachers and library media specialists collaboratively plan their resource based units to develop students' critical thinking skills" (Weisberg and Toor 1996, 87).

The studies and the reports on efforts to design learning experiences for distance education demonstrate that human learning is a complex and holistic endeavor. The impression from the literature is that the next generation of instructional designers will have to deal with issues related to the articulation of guiding theory, the development of principles to guide the selection and use of learning approaches and technology, the formulation of criteria against which to assess the planning, development, and implementation of materials and instruction.

Copyright

Within distance education, there is growing tension in relation to copyright--particularly in the interpretation of the Copyright Act of 1976 with regard to Fair Use. This version of the Act didn't anticipate the various multimedia applications that would be developed in distance education. Technically, faculty are prohibited by the Act from distributing anything via computer (because that inherently alters the photograph or image) without securing permission. This, of course, is time consuming (it is possible to use hundreds of pieces in one presentation) and costly. Publishers are afraid of losing their place as primary providers of materials to the Internet, faculty and students are frustrated, administrators are afraid of lawsuits. What is considered Fair Use in face-to-face classrooms is not allowable through distance education technology, according to the 1976 Act (Dalziel 1996; Stansbury 1996).

"The Fair Use Doctrine permits those engaged in teaching, research, scholarship, or criticism to commit technical violations of copyright when certain criteria are met" (Douvanis 1997, 1). However, Douvanis notes that copyright law creates problems in distance learning for several reasons, among them the provision that instruction be face-to-face and that it be conducted in a classroom (Douvanis 1997, 3). Further, violation of human rights concerns might require that releases be secured from all participants where courses are videotaped (Douvanis 1997, 4)

The 1976 Act is not clear on how technology is used in teaching. "For example, the Act makes it nearly impossible for faculty to produce their own comprehensive multimedia productions to streamline their course material, enhance the visual flow of a presentation, or transmit a course via computer to a distant student unable to attend an on-campus class. In order to create multimedia presentations teachers need to digitize images. However, the law requires one to obtain copyright permission if he or she duplicates or changes the quality of an image in any way--even if only 10 students see the final product" (Dalziel 1996, 24). Because of the confusion schools interpret "fair use" in a variety of ways.

In 1994 the Conference on Fair Use (CONFU) was convened to deal with problems in the 1976 Act related to multimedia, distance learning, visual archives, and digital libraries. The reports from this ongoing conference are available as ERIC documents (ED405843. "Copyright in the Age of New Technology;" ED402920 and ED401881. "Fair Use Guidelines adopted in September 1997").[18]

Certainly, a major factor in resource access and use is the necessity of copyright provisions. Collections are being digitalized. "From the Vatican to the Library of Congress to scores of universities, specialized collections are being reproduced in digital formats and made accessible to the world online. This expanding database of humanity's history and knowledge base, combined with increasingly sophisticated search engines, will continually make more and more of our

[18]Kirk and Bartelstein (1997, 40-41) refer to the distance education portion of the Digital Millennium Copyright Act undertaken by the Copyright Office on behalf of Congress. It appears that hearings are ongoing concerning changes that are needed in the Copyright Act (further information is not available at this writing).

existing, but seldom seen, information available from anywhere there is a connection" (Barnard 1997, 34). However, this also creates the nightmare of paying copyright holders, writing licensing agreements, developing schemes for recording, securing passwords and payment. To have this service one pays a high price in frustration related to copyright issues; but what are the implications for intellectual property rights when material can be accessed, copied and disseminated without regard to copyright?

Accreditation

ATS, AABC, Regional accreditation agencies, the Distance Education and Training Council, TRACS (Transnational Association of Christian schools), state licensure bodies, military higher education review programs, and international accreditation agencies involved with theological education, are among those concerned about definition, principles and standards pertinent to accreditation. Undoubtedly, these agencies need continuous, not periodic, input from institutions and services within the institutions in ways that will facilitate understanding and evaluation of rapidly developing new educational programs--especially those involved with distance education. How does one set standards for distance education, especially when there is no clear definition, no set format, and especially when institutions are going ahead with program development, sometimes without regard to accreditation guidelines? Some have observed that distance education is already becoming institutionalized. How can ATS, for example, set standards and procedures that recognize the diversity and potential of these programs, without ensuring that distance education will become rigid and time bound? To further complicate matters, as the distance education programs of institutions reach around the world, creating multiple opportunities for interaction and joint program ventures, will the different accrediting bodies that service theological education worldwide be forced to collaborate? Since distance education is already an interconnected global reality it would seem important for ATS to be in dialogue with accrediting agencies around the world. How does an accrediting agency, disposed to sending teams to do on-site examination, confront the reality of a program where students and faculty and learning experiences are scattered through an enormously large number of sites world wide? How does one accredit a virtual theological seminary?

Crow reflected on the future responsibilities of the Commission on Institutions of Higher Education (CIHE) in light of the new problems posed by distance education for accreditation. He cited the case of an accrediting body trying to deal with different institutions: one offers its graduate program solely through satellite, another offers its master's program through computer mediated delivery, another offers its graduate degrees though cable television. Is distance education so inherently different from traditional education that it requires a whole new set of standards? Or is it so different that it cannot meet existing standards and, therefore, should not be subject to standards and procedures? Crow suggested that "The basic operating assumption will be that the distance education enterprise takes place within a recognizable institutional context and that the quality of education provided at the sponsoring institution serves as the measure for the quality of education to be provided through distance delivery" (Crow 1995, 355). Operating on this assumption he suggested several criteria for the establishment of accreditation standards for distance education:

1. The institution's distance delivery programs have a clearly defined purpose congruent with the institutional mission and purposes.
2. The institution admits to its distance delivery programs students who meet the institutional admission requirements but who also have the capacity to succeed in the distance delivery environment.
3. The institution's financial documents . . . show sufficient financial capacity and commitment to support the distance delivery programs. That support includes appropriate administration for the program as well as development programs for faculty and others providing support services.
4. The faculty provide appropriate oversight for all distance delivery of education, assuring both the rigor of the curriculum and the quality of instruction.
5. The institution provides access to the learning and support systems necessary for the distant-learning student to succeed.
6. The institution evaluates its distance delivery programs on a regular and systematic basis and makes the changes necessary to improve their quality.
7. The institution assures that its distance delivery programs facilitate appropriate student-faculty and student-student interaction.
8. The program delivered through distance delivery has a coherence and comprehensiveness comparable to the program offered on the home campus.
9. The expected learning outcomes for courses and programs offered through distance delivery are the same as those used for comparable courses and programs on the home campus.
10. The institution's system of distance delivery includes appropriate back-up systems to compensate for short-run technological difficulties. (Crow 1995, 355-356)

Gellman-Danley (1997) reported on the formation of the Council for Higher Education Accreditation (CHEA) in 1996[19] to oversee all regional accrediting agencies. The regional agencies, however, are reputedly moving forward unilaterally. In March 1997 the Commission on Higher Education, Middle States Association of Colleges and Schools produced its own guidelines for distance learning.

- Each institution must clearly state the rationale for entering into distance education programs.
- All academic programs and support systems must be appropriate for distance education
- The curriculum of distance education must be congruent with other curricula of the school.
- Student outcomes must be clearly articulated: costs, ease of use, learning effectiveness, access to resources.
- Faculty support for design and management of distance education courses must be in place.

[19]Information on CHEA can be accessed at http://www.chea.org Note particularly a document prepared by the commission: "Assuring Quality in Distance Learning."

- There must be parity for distance learners.
- Marketing policies and procedures must be appropriate and clear.

Reports from other regional bodies add considerations such as: faculty support, facilities and equipment, procedures for evaluating quality, governance, advising and curriculum, planning and accountability, compatibility of distance education policies and procedures with institutional goals and mission, need for criteria where schools are part of a consortium, libraries and access to resources, interstate agreements, copyright, faculty workload (Gellman-Danley 1997)[20].

A task force sponsored by the American Council on Education and the Alliance: An Association for Alternative Programs for Adults proposed guiding principles for distance learning in a learning society (Granger, Gulliver, Miller 1996). Key insights of the task force were that we no longer live lives bounded by time and space; and learning permeates virtually all sectors of society–"therefore principles of good practice must not be applicable only to institutions of higher education" (Granger, Gulliver, Miller 1996, 6). In a utopian vision, the task force asserts that strengthening one sector of society will have a leavening effect on other sectors, ultimately benefitting society as a whole. Significantly, the report takes pains not to support learning at a distance exclusively. The principles, though framed in relation to distance learning, are intended to guide planners from the various sectors of society involved in the development of people, through the challenges presented by the changing nature of the educative process. The principles are based on values supportive of lifelong learning in the service of society, diversity, universal access, mutual accountability and responsibility, and interactivity; and offer guidelines related to attention to context, accessibility to learners, organizational commitment to quality, formulation of learner-oriented outcomes, a plan and infrastructure for the use of supporting technology. The underlying premise is that the roles of "providers," agencies, and learners will change in the emerging learning society (Granger, Gulliver, Miller 1996, 11-18).

A group representing the Western states' higher education regulating agencies, higher education institutions, and the regional accrediting community prepared the following "Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs."

Curriculum and Instruction

- Each program of study results in learning outcomes appropriate to the rigor and breadth of the degree of certificate awarded.
- An electronically offered degree or certificate program is coherent and complete.
- The program provides for appropriate real-time or delayed interaction between faculty and among students.
- Qualified faculty provide appropriate oversight of the program electronically offered.

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[20]The Accreditation Handbook. Policies, Procedures, and Standards of the Accrediting Commission of the Distance Education and Training Council is available in an ERIC document ED 407566, 290 pages.

Institutional Context and Commitment to Role and Mission

- The program is consistent with the institutions' role and mission.
- Review and approval processes ensure the appropriateness of the technology being used to meet the program's objectives.

Faculty Support

- The program provides faculty support services specifically related to teaching via an electronic system.
- The program provides training for faculty who teach via the use of technology.

Resources for Learning

- The program ensures that appropriate learning resources are available to students.

Students and Student Services

- The program provides students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technological competence and skills, technical equipment requirements, availability of academic support services and financial aid resources, and costs and payment policies.
- Enrolled students have reasonable and adequate access to the range of student services appropriate to support their learning. Accepted students have the background , knowledge, and technical skills needed to undertake the program.
- Advertising, recruiting, and admissions materials clearly and accurately represent the program and the services available.

Commitment to Support

- Policies for faculty evaluation include appropriate consideration of teaching and scholarly activities related to electronically offered programs.
- The institution demonstrates a commitment to ongoing support, both financial and technical, and to continuation of the program for a period sufficient to enable students to complete a degree/certificate.

Evaluation and Assessment

- The institution evaluates the program's educational effectiveness, including assessments of student learning outcomes, student retention, and student and faculty satisfaction.
- Students have access to such program evaluation data.
- The institution provides for assessment and documentation of student achievement in each course and at completion of the program.. (In Johnstone and Krauth 1996, 40).

Distance education is gradually changing expectations about the nature of teaching and learning. Learning is not simply the acquiring of a body of knowledge--it requires the development and use of critical thinking skills, effective communication, and the ability to work well with others. Students are becoming consumers of the education they want, not passive recipients of what a faculty determines they need. Learning is not confined to a classroom and requires networking of resources. Campus boundaries have dissolved. Humpty Dumpty has fallen and will not be put together again. All of this has profound implications for accreditation. Crow, addressing the Commission, wrote: "The Commission inevitably will be called upon to provide leadership in

defining quality in the new educational contexts. This task might sorely test the Commission's historical commitment to peer review. In any period of significant transformation, those caught up in it are frequently the least well-equipped to understand the forces buffeting them" (Crow 1995, 358). What will be the role of ATS in setting standards in relation to new educational contexts in seminaries?

Accreditation is often seen as the guardian of conventional education–understandable since the membership of accrediting associations, particularly those related to theological education, tend to be more conventional in their orientation. Though it is unusual to find a major university without extensive and well-supported on-line programs, it is unusual to find a theological school with one. The restrictions, perceived or actual, posed through accreditation standards may be limiting--but only for the short term. It is inevitable that theological institutions will embrace distance education in its several forms. If ATS and other associations cannot move quickly enough to both guide and inform the emergence of different modes of education, the schools will turn increasingly to the regional associations. And the regional associations are not unaware of the trend. It is likely that we will see an increasing openness on the part of the regional associations to theological schools–possibly even a well-developed sub-division that relates specifically to Christian higher education.

Evaluation

How is evaluation accomplished effectively in distance education? Should distance education be evaluated by the standards related to conventional education. One's understanding of "successful education" is related to the criteria one uses to evaluate that education. Criteria clustered around transmissive pedagogical models are different from criteria clustered around dialogical or process models. Is the education process described in terms of efficiency or artistry; closure or lifelong; passive or participatory; preparatory or developmental; teacher directed or learner centered; structured or structurable. Further, the factor of multisite evaluation presents difficulties for evaluation unless one assumes that one central program simply can be transferred to multiple sites.

Generally speaking, evaluation involves ongoing (formative) evaluation of support factors, demographic factors, administrative factors, design factors, program logistics, effect of facilities on the learning climate, intentions of the participants for the learning experiences, perception of how well program goals are being met, instructional factors--leading to revisions; and summative evaluation at the end of the program to determine the effectiveness of the program in specified areas. Forest and Rossing argued that evaluation must retain the human value of people centered instruction while increasing the need for program evaluation and accountability. To this end, they advocate involving people in the evaluation process, using existing social relationships in the evaluation, and encouraging people to discuss the evaluation with others in their social groupings. Assessment techniques that are consistent with the character of the program are preferred; data from qualitative as well as quantitative studies mandated (Forest and Rossing 1982).

Where possible, evaluation should be embedded in ongoing program development. Programs should be evaluated by studying the effects of the program on the participants and the surrounding

community if necessary. Student performance can be examined to assess relevant dynamics of the learning experience or the program. In evaluative processes, goals should be seen as dynamic over time--and interdependent to a degree. The implication is that evaluative processes cannot be fixed. At some times and in some settings one procedure may be desirable over others.

Kemmis (1980) described four levels of evaluation: "(1) program evaluation, concerning general institutional arrangements; (2) curriculum evaluation, concerning the educational arrangements of whole curricula and particular courses; (3) the evaluation of student learning, concerning the opportunities for learning created by a particular teaching/learning encounter; and (4) student assessment, concerning the outcomes of student learning" (Kemmis 1980, 5). Related to these levels are five models of evaluation. The movement of thought and emphasis in the five models he describes (the engineering model, the organizational model, the ecological model, the illuminative/responsive model, and the democratic model) offer nuances pertinent to the task of evaluation in distance education. The models move from a more "technological," utilitarian concentration on an instructor's design of objectives and outcomes, experiences and tests; to the managerial approach of gathering data that will help decision makers keep programs viable; to a "cultural approach that is conscious of the relationships between individuals and their surrounding environment; to an approach that deliberately seeks to address issues raised by participants; to an evaluative process that offers a way to disseminate information to all members of the group.

Dynamics within each of these evaluative approaches highlight the respective concerns of: How sufficient are behavioral objectives for the assessment of learning? What factors should be included in the evaluative process? To what degree is a consensus possible about what ought to be learned--and hence to what degree are objectives and reliable measurement possible? To what extent can an evaluative process give adequate feedback about why a program fails, and not just that it failed in certain respects? To what extent can the evaluative process be value-free, scientific, objective? Who fashions the objectives, decides what data are relevant, and who gathers and interprets the data? To what extent is it possible or desirable to use evaluative processes to control the complexities of educational institutions and processes? To what extent is it desirable to subjugate the perspectives of individuals to the goals and the ethos of the corporate entity? To what extent is it helpful to develop prescriptive goals and objectives at the front end of the evaluative process? What would a more organic, holistic and contextual approach to evaluation look like? Is evaluation ever a completely rationalistic process? To what degree is an evaluation process that encompasses many audiences, truly a focused and reliable process? To what extent can evaluation enter into the reality of the program in order to create conditions for responsible self-reflection--where an organization can learn from its own experience?

Knapper (1985) suggests that there is a difference between using lifelong learning criteria for the evaluation of distance education and employing standards from conventional education. The notion of lifelong learning received widespread publicity after the publication of Edgar Faure's book, Learning to Be (1972). "Subsequently UNESCO adopted lifelong learning as a guiding principle for educational reform . . ." (Knapper 1985, 5). The pedagogical criteria for lifelong learning that Faure proposed include: Students plan and evaluate their own learning, assessment methods are formative in nature, active learning methods are emphasized, learning takes place in

both formal and informal settings and focuses on real-world problems, learning strategies are tailored to the student's situation, the nature of the task, and the instructional objectives, material from different subject areas and disciplines is integrated, the process of learning is stressed at least as much as instructional content (In Knapper 1985, 6). Following these criteria the suggested procedures for evaluation included:

> Participation by a broad cross section of the population
> Integration of general and vocationally-oriented education
> Flexibility in the content and organization of instruction
> Credit for prior learning experiences in both formal and non-formal settings
> Close links between education and the world of work
> Use of non-professional teachers and resource people where appropriate
> Emphasis on self-instruction
> Provision of help with learning and study skills. (In Knapper 1985, 6)

Howard noted that the quality of the feedback given to students at a distance will be a major factor in the effectiveness of their learning experiences and in the achievement of learning outcomes (Howard, 1987, 24). In her review of the literature, she cites numerous articles that deal with modes of feedback. Her article suggests a decision model that is more instructional and formative than pragmatic and summative. She suggests that the more effective feedback is that which is "designed into courses on the basis of *instructional function* before various delivery methods are considered" (Howard 1987, 26). In academic learning two functions are important: the learning of concepts, terms, principles, and so on; but also the need to use this information in interpretation, analysis, and problem solving (Howard 1987, 27). Using this two fold approach to learning, feedback types are chosen. Feedback for information processing includes reinforcement for the acquiring and organizing of information. Feedback is needed to determine whether or not classification of information is correct, and about the correctness or incorrectness of practice exercises. Feedback mechanisms also need to consider the degree of individualization of the learning and how immediate it should be.

<u>Internationalization</u>

How are distance learning programs prepared in North America for North Americans going to translate globally? What economic, political and social conventions other countries affect the development and use distance education? What attitudes do other cultures have with regard to "power" in communication? What is the relationship of the individual to the group? How much interactivity can be tolerated in other cultural settings? How do we recognize language and subtle cultural cues? How much responsibility do we assume to reshape perceptions? Rossman drew attention to the difficulties created by time differences, language differences, differing cultural needs, the need to manage the logistics of accreditation and course selection across cultures, and lack of standardization of technology (Rossman 1992, 21-22).

The notion of interconnected, world wide programs of distance education is a worthy idea. But the problems are considerable: limited infrastructure, costly technology, lack of human resources, national and international regulations. In many countries the technologies of choice are still tape recorders, telephone, film, radio and possibly television. Audioconferencing and teleconferencing using phone lines is becoming more accessible, but problems remain in lack of trained staff and speed of correction of problems that occur in transmission. The technologically developed countries are: Canada, US, Britain, Australia, India; but pilot projects on the use of technology in developing countries were described by Kinyanjui and Morton in 1992. *Kenya*: the introduction of an audio-graphics system to link four public universities and three extra-mural study centers for the Bachelor of Education; *Namibia*: the establishment of telecommunication links between Namibian Distance Education College and regional teacher resource centers; *Mauritius*: installation of a teleconferencing network to link the University of Mauritius and four centers on the island and centers in Rodrigues; *Solomon Islands*: installation of teleconferencing links between the University of the South Pacific Extension Services and the College of Higher Education to provincial centers; *Guyana*: establishment of audio/teleconferencing capability in conjunction with the University of Guyana's Institute of Adult and Continuing Education and three distance education sites in order to upgrade students attempting the entrance examinations; *Brunei*: establishment of audio/teleconferencing facilities in conjunction with the Commonwealth of Learning's Brunei Distance Education Center to supplement video conference facilities already in place. These pilot projects were designed to serve as models for future projects in developing countries (Kinyanjui and Morton 1992).

Technology is not necessarily the total answer to the need for universal human learning, but it is allowing for the development of educational opportunities on a scale unheard of until a few years ago. Sharma (1996) reported that open learning and distance education systems are being established at an unprecedented rate in developing countries of the Asian and Pacific region. Driving concerns are to offer education to the vast numbers of students and especially to the poor, to enhance human development, improve women's status, foster peace and hinder, if not, eliminate terrorism. But there is still a great technological divide between developed and developing nations. Technology cannot everywhere supplement print and the capacities to use the skills of informed dialogue, problem solving, group process, application, autonomy in learning can be underdeveloped. On the local level, it will become increasingly important to help students develop capacities and sustainable habits in learning processes. Further, seminaries in countries with an established literature base will discover problems in simply translating that literature for use in countries where an indigenous literature needs to be developed to reflect their own cultural realities. It is conceivable that one of the contributions of distance education could be to foster the collaboration of persons from one or more developing nations for the writing, evaluation, and production of literature.

As the World Wide Web (WWW) becomes more populated by seminaries, greater attention must be paid to issues of contextualization. We cannot simply reproduce lectures and printed materials ("electronic page turning") on the Internet for all the world to see without some sense of how the world sees! One's impression at this point is that the nations that are most technologically advantaged tend to develop distance education delivery systems that are culture-exclusive or

culture-ignorant.[21] Do we transport a curriculum "made at home" everywhere; or do we study each specific field and tailor the curriculum according to demographic and cultural factors? What will be the patterns of interagency cooperation in theological education that will support the development of effective distance education efforts internationally.[22]

Institutional/Administrative Challenges and Responsibilities

The long term monopolies of higher education are giving way to multiple forms of education and multiple agencies involved in education. These trends and the emerging technology create challenges for administrators of higher education, and according to Roberts and Keough, new opportunities for distance education. "Traditional education still has control of the accreditation and granting of credentials, but the means of delivery are being developed by other interests with far different values and goals than educators. As the convergence of technology brings us home delivery of education . . . distance education practices could provide the point of entry that traditional educators will need. Institutions may find that their future does not look very much like their past and that distance educators will become their closest allies as they try to change" (Roberts and Keough, 217).

The literature describes various administrative models for universities involved in distance education: the Campus Based Universities (CBUs), Distance Teaching Universities (DTUs), and Dual-Mode Universities (DMUs) (Rumble 1992, 31). The DTUs are facing competition from CBUs and DMUs who are now seeing the value of servicing the part time and distance student. In the past few years, even in theological education, cooperative ventures between one or more schools have surfaced as a way to deal with matters of access, costs, faculty deployment, and course design.[23] As institutions of higher education develop consortia, one school can take the lead role in development and teaching and coordination of resources, one may develop materials for use by other universities, a number of universities may federate, mutually recognizing each others course credits and requirements (Curran 1992, 61). But questions of who decides what should be known and how, the nature of assessment, admission policies, and who participates in decision making can be hindrances to the effective implementation of programs.

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[21]Wild and Henderson (1997) describe, in detail, a 3-year project, begun in 1998, to assess contextualization of learning with the WWW as the distributed learning environment.

[22]See Goodenow (1996) on the interagency cooperation/competition emerging in cyberspace.

[23]Christian University GlobalNet was established in February 1998 to offer distance learning support for the colleges and universities of the Coalition for Christian Colleges and Universities. "Christian University GlobalNet (CUGN) exists to respond to the forces of change affecting Christian education and training world wide." Under God's hand, our mission is to provide affordable and accessible Christian worldview distance learning opportunities to learners worldwide and services for collaborative distance learning for all interested campuses within the Coalition for Christian Colleges and Universities (CCCU)" (From information brochure available from info@cugn.org. Website: www.cugn.org).

The Internet is creating the possibility of another model--the virtual university.[24] The virtual university is a reality with millions of students studying at multiple sites and using multiple resources (Barnard 1997, 33; Van Dusen 1997; Latta 1996; see also Johnstone and Tilson 1997). There are also examples of corporations developing university access on line. In the virtual university there is no expectation that students will ever come to a physical campus. Their university exists in the relationships, courses, and feedback mechanisms found in cyberspace.

Student support functions comprise another significant administrative responsibility for institutions providing distance education. Administrative procedures described as necessary relate to developing learner profiles, providing good information and orienting the learner to the program, establishing ongoing communication procedures through materials, telephone contact and site coordinators (Ganger and Benke 1995, 23), communication concerning admission and registration and records, bookstore and library access, advising, tutoring, evaluation and assessment.

Access

Some of the differences in the form of distance education reflect the degree to which a person has free access to learning opportunities, is able to shape the nature of the content, objectives and assessment, and is free to determine how, when and where she or he will learn. Typically, access is described in relation to programs that are accessible to people regardless of educational level--open admission; or in relation to regular programs made available at non-traditional times and places to accommodate schedule needs.

Distance education promises access to all. However, distance education programs that are heavily dependent on technology could be difficult to access by some minority populations and economically disadvantaged populations (Dillon and Cintron 1997). When access is described in relation to technology, the former difficulty of the slowness of the communication process (for two-way communication) is now not as much of a problem; access to technology and appropriate use of it is. Access is also affected by matters of contextualization, language and culture when an institution provides distance education for different international contexts.

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[24] Contact Dr. Luis Alvarado, Vice President for Communications for information on the Virtual University of Monterry, Mexico. lavarad@campus.ruv.itesm.mx Regents College, established in 1971 by the Board of Regents of The University of the State of New York and describes itself as America's First Virtual University. It is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. Since its inception it has conferred over 76,000 degrees. Website: www.regents.edu The Graduate School of America, currently seeking accreditation with the Commission on Institutions of Higher Education of the North Central Association of Schools and Colleges, offers masters programs on-line. Its stated purpose is to offer graduate programs for adult learners seeking to "integrate advanced study with their professional lives. Its mission is to deliver high quality programs that provide traditional and contemporary knowledge through flexible and innovative forms of distance learning " (from information brochure available through tgsgainfo@tgsa.edu). In 1995 the Western Governor's Association approved the formation of a virtual university to service the Western region of the United States (Gilbert 1996, 12).

Examples of Distance education in Theological Education

Numerous examples exist of schools and churches developing nontraditional programs of theological education (our more complete understanding of developments in North American theological schools requires the data from the recently distributed Educational Technology Survey of ATS schools). This part of the report will simply give examples which may be suggestive of trends and patterns.

Moody Bible Institute established a program of correspondence study at about the same time as William Rainey Harper was establishing the program of correspondence education at the University of Chicago. More than one million students have been enrolled in Moody's program over the past 100 years. The historic, founding vision for the extension program was to train ministers in the gaps–those who wouldn't find a place in the traditional program : Sunday School teachers, those working in rescue missions, pastors already serving in churches.

Perhaps the most visible effort to do something comparable to correspondence or distance education in theological education, centered around the emergence of the Theological Education by Extension movement (TEE)[25]. From its beginnings in 1962 or 1963 in Guatemala, and hailed by many as the savior of theological education in developing countries, it has developed into a world wide movement. It's genius was, and is, to take the seminary to the student--a decentralizing of theological education. Though the impetus of the model was no doubt related to concerns for institutional survival, the designers felt that by contextualizing seminary education, they could encourage pastors to stay in the pastorate and develop them while in the pastorate. TEE relies on home study materials and a traveling instructor. At its best, TEE envisions the education of the church leader as continued development in context and not as preparation for future ministry (a distinction that affects instructional design and one that is increasingly an issue for contemporary seminaries). However, the movement has been challenged by Ward, McKinney, Ferris and others as flawed in that it took an excessively programmed approach to learning, that it was influenced subtly or not so subtly by behavioristic philosophy, that it became more formal than residential schooling ever was, that it failed to renew theological education, and that there were certain assumptions made that the programmed materials could be easily transferable from one country to the next--without recognizing the uniqueness of each new context. Persistent difficulties continue to be the unwillingness to get input from churches, the design of materials, the limited effectiveness of seminar leadership, the failure to lead students to deal with real problems in their own settings, uneven administrative supports, and the flawed attempt to create evaluation procedures that could be uniformly applied to every culture and context. Ward's concern that "technology," in the form of programmed instruction, began to drive the model was well-founded and forecasted contemporary concerns about the nature of teaching and learning,

[25]Snook identified three stages in the development of TEE: 1963-1974 (origination), 1975-1984 (rapid expansion), 1984 to the present (evaluation) (Snook 1992, 33). See also Harrison 1978; Kinsler 1978; Mulholland 1982; Ward 1974.

and the role of technology in education. His early emphasis on the need for trained seminar leaders and substantive interactivity between students, and students and teachers, remain valid concerns for the continued development of distance education. These concerns as well as the implicit warning that, though TEE served a purpose, it had also "extended the influence of the Western-culture church" (Ward 1974, 246) are valid issues for North American seminaries seeking to design various modes of distance education.

The Open Learning Centre established in 1928 in the Wesleyan Methodist Church (Britain) started as a correspondence school model. Their target audience was the laity of their churches. Currently, it services about 1000 students a year with about 200 volunteer tutors. The majority of courses are in biblical and theological subjects. They admit that finances limit their ability to prepare materials that allow for a greater variety of media--and, therefore, interactive experiences are minimal (Walton 1997, 42).

ICI University was begun by the Assemblies of God in 1967 and now serves many denominations (Flattery 1993).[26] They make an effort to recognize the multinational dimension of their distance education programs--asserting that their programs are for cross-cultural and world wide usage, and that they develop courses for specific cultural groups. However, one wonders about the significance of the statement that "We do encourage and permit adaptations for cultural reasons, although not much seems to be needed" (Flattery 1993, 57). The view of the transcendent nature of the gospel seems to affect curricular planning--the message can be the same no matter what the language.

Vicente (1982) reporting on the Spanish Institute for Theology at a Distance (an institute formed in 1973 by the Archdiocese of Madrid in response to Vatican II to address the needs of continuing theological formation for priests and laity) stated, "Whereas older educational systems prepared people for relatively static social situations by transmitting to them an accumulation of knowledge, today education must equip people to face new changing situations by encouraging integral, ongoing personal formation. Human life can no longer be divided into a stage of preparation, formation, and acquisition of information and another stage of action, service and maturity. Education must be a continual process" (Vicente 1982, 193). The courses are basically workbook driven and designed for working adults who can't get together in regular classes.

In 1983, Kinsler listed several presuppositions guiding Southern Baptist seminary extension programs:

1. Every minister needs to engage in purposeful, planned learning as long as he or she is in active service.
2. Learning produces changes in how persons think, feel and act.
3. Learning is facilitated when it is related to the problems and felt needs of the learners.

[26]ICI has merged with Berean University, Springfield, MO.

4. Learning is facilitated when it takes place in the locale in which application is to be made.
5. Learning is facilitated when the learner is appropriately involved in setting goals, planning processes, and evaluating results.
6. Learning is facilitated when the methods used are consistent with the goals and abilities of the learners.
7. Learning is facilitated when both course materials and the personal experiences of learners are used skillfully as resources in achieving the learning objectives.
8. Learning is facilitated when it is consistent with and improves the self-concept of the learner.
9. Learning is facilitated when the learner is encouraged and assisted in using what he or she has learned in real life situations.
10. Effective continuing education helps persons learn how to learn and commit themselves to life-long learning. (Rigdon and Hollaway, 181. In Kinsler 1983)

Recently, GlobalNet was established to serve colleges associated with the Christian College Coalition. This service allows schools to develop and access electronic courses without having to bear the cost independently. Cagney (1997) reported on the response of Christian colleges to new technologies. His concerns and recommendations were predominately pragmatic and programmatic. For example: If Christian institutions don't get on board, they'll be bypassed; they will lose students when it becomes increasingly possible for students to pick up courses on the Internet; schools that don't take advantage of technology will be bypassed by schools that will; Christian colleges are missing the huge market now accessible through the Internet. He stressed that colleges will have to learn or hire the skills required to use the technology appropriately; faculty will need training in the development and use of courses on the Internet. Colleges caught in the dilemma of not being able to finance the development of distance education may find their survival threatened if they don't. Consortia may be formed to manage costs and utilize resources. He identified benefits of Internet-based technology that could become part of the schools' offerings: missionary support, pastoral education, interface with evangelical not for profit associations, professional development in any number of marketplaces.[27]

Walker, in 1996, reported that many of the larger evangelical seminaries in the US were wired for the Internet and were moving ahead in offering technologically mediated courses. The trend toward greater use of technology will continue, but many schools will find the pace of development slowed because of costs, still limited resources to use in this medium, and limited technological support services on campus. In spite of these limiting factors, seminaries are moving ahead in designing and offering degree programs on-line. Though accrediting agencies affirm these projects in principle, ATS, in particular, is cautious. ATS Standards for distance education are currently being revised, but until quality course design has been demonstrated, until a greater number of primary resource materials for the theological disciplines are electronically accessible, and until the medium can prove that interactivity is possible and effective, ATS will

[27]Web site for Christian Distance Learning:: http://www.cccu.org/fac-admi/infotech.html

move slowly in supporting such efforts. Bethel Seminary (Minnesota) and North Orleans Baptist Theological Seminary offer on-line degree programs that have been affirmed both by ATS and North Central Association. The distance education programs of both seminaries are being studied in preparation for what may or may not be a substantial revision of standards in this area (see Thorkelson 1995 for an early discussion of Bethel's program).

A growing literature base advocates theological education of the laity and a return to the importance of education for the whole people of God. This emphasis implies the importance of nontraditional education and cites the rapid increase of church-based efforts in theological education. The preferred metaphor for theological education is that of the collaborative community characterized by a compelling purpose, collegiality, professional socialization, and interdependence (Richart 1996). Churches and theological schools in partnership ought to be seen as communities of mind, spirit and service. Distance education might provide a way for churches and religious leaders to develop programs in conjunction with seminaries--or in place of seminaries where the academy is not responsive. Many of these efforts center theological education around ministry, or around the development of leadership skills, and build on the reality that learning in these areas is more effective when based at a site where it is to be applied. However, it is possible that, in this movement, the seminary will be bypassed and marginalized, leading to a probable lack of integration between concept and practice and, thereby, weakening *praxis*.
Specific examples could not be found of North American seminaries developing modes of distance learning that included leaders in churches and educational institutions in other countries in the planning, implementation, and evaluation of their programs. As theological schools and churches in North America develop programs of theological education utilizing distance education modes, they will encounter the world. They will either persist in designing programs based on Western models and concepts and deliver them to the world; or they will learn how to develop partnerships and systems of interaction and idea exchange between educators in a variety of countries and cultures.

Implications: Cues for the Way Ahead

Keegan's assertion that "In the years 1996 to 2000 distance education will play a new and crucial role as a complement to schools, colleges and universities in many national education systems" has proven to be true (Keegan 1996, 4). Developed or developing nations in financial crisis may only be able to afford education and its resources if there is access to Internet-provided distance education. The interconnections of agencies (business, government, public service, private concerns) with higher education institutions creates new options and new markets for all sectors. There is already significant decentralization of higher education as financial exigencies are forcing universities to develop smaller hubs of specialized programs, many of them in one or more distance learning modes, with the administration of these hubs scattered through business, education, and other agencies (Rossman 1992, 11).

As educational delivery systems become more pervasive and affordable, substantive connection and interactivity of the world's communities may be possible. "A rapidly growing new country .

. . . [called] Windownesia, will be added to the world, and international education will never be the same" (Daniel 1996, 38). One proposal for the "ideal university" is that of a high-tech. center based in one location--but with electronic connections all over the world. "Millions of students [now] take courses electronically, many scholars use electronic networks for global-scale research projects, and other signs point to the emergence of a worldwide electronic university" (Rossman, 1992, 1). Are we about to see new mega-seminaries emerge? Is the future to be found in the virtual seminary–with cyberspace connections of millions of persons world wide? Several writers described the signs of the emerging future university: Students taking courses from multiple universities in multiple countries via the Internet; electronic catalogues connecting resources world wide; international, Internet-linked faculty; professional associations via the Internet of administrators and scholars and professional resource personnel; electronic, virtual classrooms; guidance and counseling on the 'Net; electronic bookstores; electronic interaction of laboratories; special events, joint faculty meetings; associations of scholars; conferences; an electronic university press.

Seagren and Watwood (1997) detailed propositions from the Virginia Commission on the University of the 21st Century regarding how they see the evolution of higher education: Colleges will become networks, not places; as they do students will be exposed to global perspectives; new technologies will improve the quality of instruction, allow for increased contact between faculty and students; living and learning will be more integrated; faculty roles will change; teaching will become more responsive to individual differences; universities and colleges will become increasing interconnected with institutions in the public and private sector.

Will emergent modes of distance education threaten the existence of the physical institution? The costs of storing information in libraries is increasing exponentially. The demands of increasing specialization in proliferating areas of knowledge renders a residential faculty inadequate. Clusters of specialists are likely to emerge in cyberspace–and the step from the network to the offering of credentials by the cluster is an obvious one. The intolerance of adults for residential experiences that simply fulfill academic requirements will increase and institutions that can offer learning options in more comfortable and attractive ways will flourish. "If universities' dominance over higher education falters, their economic foundation will erode. Most universities will not be able to compensate for tuition losses by gaining more public funding. Yet private donations are likely to decline, if anything, with the reduction in the universities' centrality in research and teaching, and with a more general disillusionment about the ability of higher education to solve society's problems" (Noam 1997, 23).

Will access to resources, to electronic communities, mean the end of the traditional seminary? Will the advent of new technologies and approaches signal the demise of the campus-based model in the 21st century? Despite predictions to the contrary this is not likely. But the emerging challenge is how to create and manage new environments for learning. Disciplines are already groaning under the weight of information. Faculty and admissions officers no longer have the exclusive rights to the selection of what content will be delivered to what students. Education conceived of as learning will make different demands on faculty and administrators and students. Skills of acquisition will be less important than skills of accessing, processing, evaluating, and

applying. The focus will be on how individuals and groups are enabled to design and redesign learning experiences. Some students will have access to the world, and will be able to study with any seminary in the world without leaving home.

In the 21st century, there will be greater choice for learners, faculty, and researchers. As various sectors in society embrace lifelong learning, the learning population will become more diverse. The physical campus will be less the focal point for the learning community. Collaborative ventures will become more common (Daniel 1997, 103). What will credentials and degrees come to signify in the future? What will the residential campus become? What will be the role of faculty? What will resource materials look like and how will they be accessed? What is a student in the world of the future--answer: everybody, almost anybody, worldwide. Will anyone remember what a timetable was? 50 minute classes--they really had those? Semesters? Will the hierarchy of types of institutions make any sense in the future? Where there are interlinked sites, what purposes will classrooms serve? What will FTE mean in the future? What will the future FTE Information Age, Post-Industrial, Post-Information Age learner look like? Will it be possible for a student to complete a degree and never set foot on the campus? What will ATS do if schools determine that this is do-able? How will accreditation systems be affected as well as policy and funding restrictions? When and if the dust finally settles, what will distance education and formal education look like? Wouldn't it be surprising if they didn't look a whole lot different?

"The gap between Higher Education and Distance Education is narrowing through training, further understanding of the philosophy and methodology in Distance Education and the cost-effectiveness of Distance Education for the expansion of conventional Higher Education" (Wilson 1991, 53). Wilson suggests that there are three developments that will serve to bridge the gap in traditional education's willingness to accept and participate in distance education:
1. The establishment of Study Centers. These are learning sites with faculty based at each center. They are community based and can be anywhere from a single to a multiple classroom facility. They allow easy access and interaction with faculty. They can provide for face-to-face interaction; but they can also use technological support services that will allow for video-conferencing.
2. The collaboration of two or more schools and/or other agencies for a specified period of time to accomplish agreed upon educational purposes. Collaboration can include the sharing of resources, improvement of learning materials, dealing with legal or political requirements, increased capability to respond to societal needs.
3. The emergence of new technologies--particularly those that facilitate interactive strategies (Wilson 1991, 54-58).

Advances in technology have created new possibilities for designing educational experiences that promote interaction, foster community, and allow for the development of higher order thinking skills. However, a sizable gap still exists between the computer literate and those who do not have access to the necessary technology. Distance education with a global reach is a desirable goal, but suitable infrastructures for the emerging technology need to be developed in many developing nations. Further, even though peoples are connected, the skills of interaction, group process and information access and use will need to be part of distance learning. Interactivity

doesn't guarantee a *learning* community or quality of dialogue. Helping students make sense of information they have acquired but do not yet understand is a critical task.

The major problem in higher education is not excessive cost but insufficient learning. Learning productivity is and will continue to be a significant issue. Emphasis on the responsibility of the learner forces several corollary issues: learning is lifelong, responsible learners are change agents and involved in social process, education is organized around the learner rather than around institutional needs, the production of materials that combine learning effectiveness with content and technology will be a significant challenge, the re-engineering of delivery systems will become more important as paradigm shifts take place in institutional culture and an increased emphasis on learning. Apparently distance education as content delivery isn't going to be effective.

Nor will it be defensible to think of distance education and formal education as two separate, clearly distinguishable modes. The presumption of two distinct student bodies: students in traditional settings and students in nontraditional settings is less appropriate. Students, increasingly, seek out education no matter what the mode. Both formal education and distance learning will realize the need to place learning in real life–taking advantage, as Kemp argues, of the communities that already exist in the real world of those students. Technology will serve both formal and nonformal modes of education, enabling students to make choices to a greater degree.

The need is for a view of educational process that does not focus on the distinctiveness of modes, but on the nature of teaching and learning and how various modes can be used in relation to teaching and learning outcomes, contexts, and relationships. Since this review is concerned particularly with distance education, however, observations from the literature suggest that the focus for the future of distance education is toward a process orientation in the curriculum and in learning strategies, to more precise assessment criteria (not to be identified as measurable objectives), and flexible, versatile assessment practices. Distance education will need well designed learning resources, mechanisms for interactivity and feedback, and resources in place along with support systems.

The literature suggests that, at least for the time being, distance learning and technology are wedded–and some present this marriage as the promise for the future. However, the concerns in the literature are obvious enough to remind one that technology is ever a tool, not a solution. Learning options will use the tools, but learning is not contingent on the use of the tools. Concerns are expressed about the access, or lack of access, of minority populations and members of developing nations to technology. Statistics on the drop out rate of students suggest that technologically driven learning options are not yet a guarantee of continued engagement (see Jones and Schreuder 1999, 6). It stands to reason that the key to the future of distance education will not be simply more and more powerful technology, but the synergy of educators, program designers, students, and community and church leaders.

What will be the values and criteria that will guide the revision of the Standards related to Distance Education? Restricting distance education to one-third of the program is not, in light of the literature, a constructive way to manage distance education in relation to formal education. If

the accreditation standards persist in separating the modes, the real danger exists that two different services will develop–and two separate faculties. Further, anything that fosters the perception that formal education is the preferred mode and distance education a convenience, will frustrate educational planners who are less inclined to accept a view of distance education as merely a delivery system for the formal courses. One leader in distance education recommended that ATS needs to allow for experimentation; that the 33% rule effectively cuts out experimentation in different modes of learning. Does ATS have a forum where nontraditional modes can be encouraged, resources shared, experimentation reported? Distance education, it is observed is not represented at conferences, particularly in the "best practices" forum. Inter-institutional collaboration needs to be encouraged and a database developed of faculty and institutions engaged in productive efforts in various forms of learning.

One wonders if desirable modes of distance education can be developed in contexts where education is teacher driven and curriculum bound. One wonders if seminaries will be able to survive the future with a primarily campus based, tuition driven population? Will teachers accustomed to more traditional approaches be able to adjust? Will students? Will curriculum? Will distance education be able to overcome the problems that still hinder its development: Inadequate leadership for planning and implementation; lack of faculty support; unwieldy bureaucracy; lack of emphasis on learning and lack of development in teaching effectiveness; limited production of adequate learning materials; inadequate funding; prohibitive interstate regulations; conflict between distance learning providers and accreditation requirements; non-parity in access to technology.

The literature overall supports the impression that distance education is evolving into new patterns of learning and relationship and application. Though the strong connection in the literature between distance education and technology is worrisome, the corollary emphases on interactivity, learning community, cognitive processing, and international collaboration--facilitated by technology--is a hopeful sign. We have been disappointed with educational trends and emerging technologies before. In general, institutions of higher learning, including seminaries, haven't changed that much since the Middle Ages. The same problems and abuses seem to litter our field. As we confront a new century, what are the questions seminaries need to ask: What technology should we adopt? How are we going to attract more students? What creative things can we do to attract the attention of donors? Or: What understandings of education will embrace both formal and nontraditional modes as parts of a whole enterprise? How do we provide theological education for the whole people of God? How do we serve the continuing professional development needs of our alumni and other ministry professionals? What are the implications of conceiving education not as preparation for some future ministry but as the continuing development of the person and as continuing development in ministry? How do we address issues of authority and power and elitism in higher education? What are the social, multinational obligations of educational institutions? How do we use technology in ways that honor ethic and principle and community and a respect for all peoples? Do we understand enough of educational theory and process to use it to guide technological and program choices? Surely a right perspective is to see that education is indeed an art as well as a science; that students must become increasingly responsible for their own learning; that education is lifelong; that

environments are negotiable; that faculty are not the sole providers of knowledge; that education does not consist in the abundance of degrees that men and women are heir to.

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