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The Truth Claims of Online Higher Education a Social Constructionist Analysis

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THE TRUTH CLAIMS OF ONLINE HIGHER EDUCATION: A SOCIAL CONSTRUCTIONIST ANALYSIS

by

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CHAPTER I

INTRODUCTION

The use of Internet technology to deliver higher education to classes has grown in popularity in the last five years. As new online schools are created, and as traditional schools develop their own online classroom presence questions remain unanswered regarding the place that online education has in the near future of the United States higher education system. First, it is unclear from the literature just what constitutes online education at this point in history. There is tremendous variety in the online educational opportunities that are currently emerging. At the low end, some institutions have almost no presence at all on the Internet, or just a smattering of web-based classes, offered by individual faculty. At the high end, there are institutions whose entire programs were created, developed, and are operated only in an online environment. The bulk of higher education institutions emanate between these two extremes.

The first step in trying to understand online education is having a working definition of online education, and a basic sense of how it is different from traditional education. By analyzing the websites of higher education institutions that are offering well-developed online programs, it is possible to see why they have chosen to develop online education classes, what forms online education currently is taking, and what online education can do for the student, teacher, and school. The

fundamental focus of this dissertation is to analyze what schools say about online education and how it relates to traditional education. By analyzing how online higher education institutions define themselves and present themselves to the world, it is possible to help define what online education is today, and provide a baseline for comparisons with what online education will develop into in the near future.

This dissertation is an analysis of the truth claims made by six online higher education institutions (to be referred to as online institutions) regarding the declared role, definition, and purpose of online education. Once the truth claims held in common by the institutions are established, those truth claims can be compared to the distance education literature, the research that deals with online education, Internet demographics, and the first official governmental response to online education--the Web Based Education Commission. By comparing the truth claims of the six online institutions to these other sources information about online education, conclusions about the appropriateness of the truth claims can be made. Thus, this dissertation is a first step in trying to clarify what online education is, and what its purpose is, as declared by the online institutions who offer it as an alternative to traditional forms of education.

This dissertation takes a social constructionist perspective when looking at online institutions and online education. This perspective derives from the notion that "reality is socially constructed and that the sociology of knowledge must analyze the process in which this occurs" (Berger & Luckmann, 1966, p. 1). According to Berger and

Luckmann reality is a phenomenon that individuals can recognize in their lives, but which is independent of their volition. Knowledge is the certainty that phenomena are real and that they possess characteristics. Therefore, reality is created by individuals because of the ways they perceive the knowledge in front of them. From a social constructionist perspective, the reality of online education depends on how people interpret online education.

According to Berger and Luckmann, the main task of the social position is to study certain elements of society through the knowledge that the greater society considers valid. They believe that the sociology of knowledge is not about debunking, or uncovering socially produced distortions. Instead, the sociology of knowledge is the systematic study of the social conditions of knowledge and how that knowledge is created, replicated, and passed on. The central problem of the sociology of knowledge is the sociology of truth, or how individuals come to understand knowledge. Such truths are constructed from various sources. These sources declare the reality of a particular piece of knowledge and disseminate that declaration through the means at their disposal.

Since higher education institutions are considered one of the main sources for knowledge, a focus on what the online institutions declare as truth is an important first step. Then, one may question whether the online institutions have declared realities that are based on knowledge (truth) that others in society consider legitimate and acknowledge as truth. In this dissertation, therefore, the first step is the analysis

of the truth claims of online institutions. Once a set of common truth claims is uncovered, then a comparison to other sources of knowledge can be done to see whether the university truth claims are supported by other sources of knowledge.

The current higher education system has problems that need to be addressed. Depending on the research reviewed, there are various declared problems with the United States compulsory education system. A Nation At Risk (1983) is an outdated report that is still cited by Bennett (1992), Bloom (1987), and Hirsch (1987) as a warning of the erosion of educational standards that threaten the future of the nation. Such individuals believe that the there is not enough math, science, writing, and reading skills being taught to students. The United States Education system needs to raise course requirements, require cultural literacy, needs to introduce standardized tests, reduce general track courses, reduce the smorgasbord curriculum, introduce more homework, and introduce more character education. According to the report A Nation At Risk, too many teachers come from the bottom quarter of their schools, lack the proper teacher preparation on how to teach basic subjects, and are receiving poor pay. In the United States in many regions there are teacher shortages, and the use of teachers unqualified to teach the subjects they are hired for occurs too often.

A different perspective offered about the state of the United States Education system appears on the National Education Association's website. The association argues there are some schools that are failing to provide a high quality education experience. Low expectations,

frustrated teachers and parents, poor funding, and poor academic performance are common. However, according to the National Education Association website, across the country positive changes are underway and many schools are being turned around. They declare that the biggest problems in education currently are large class sizes, the need for new school construction and renovation, the need for the expansion of after school learning, and the need for teacher salary increases. Also discussed on the website is the negative implications of the rise of corporate involvement in education. The fear is that a market driven education system will create an education system that is no longer a governmental responsibility, but the responsibility of the individual. Education will be used as a functional process to obtain a job. Those that are poor will receive a stratified and inadequate education leaving a larger gap between the poor and the wealthy. While computer technology is considered an important aspect of education, it should not dominate the delivery of education to students. A broad education is what students need to be rounded students. The National Education Association is concerned that technology is currently being pushed upon schools in an attempt to privatize and create a corporate presence in the national education system.

In response to the concern of many educators about the growing demand for technology in the classrooms, the report No Child Left Behind (U.S. Department of Education, 2001) is a summary of the Bush administration's belief that online education technology will be a tool that will improve academic achievement. The proposal states that more

money needs to be spent on technology for schools. It is proposed that technology in the classrooms will reduce paperwork, increase flexibility, and increase student's retention and grades. Although no research is cited directly, the website claims that using certain technology has been proven to be more effective in student retention, memorization, and comprehension. There is a caution that the latest technology in the classroom should not be an end unto itself. However, it is clear the schools that restructure their budgets to spend more on technology, will receive more governmental funding. There is a real possibility that many schools with insufficient budgets will have to cut other programs to have enough matching funds to receive the technology grants.

Higher education has not been without criticism. William Kilpatrick (1992) states that the enemies of higher education are drug and sex educators in the public schools who learn their ideas from higher education institutions that teach such modernist philosophers as Jean Jacques Rousseau, Friedrich Nietzsche, and John Dewey. Kilpatrick believes higher education has nothing but contempt for traditional values. This contempt derives from the cultural relativists, left-wing university faculties in the humanities, education, and social sciences, and radical feminists. The Hasting Center group declares that higher education lacks morality, does not teach students a sense of responsibility, and does not teach them how to analyze key moral concepts and principles (Pritchard, 1996). Individuals like Bennett (1992), Kilpatrick (1992), Bloom (1987), and Hirsch (1987) also argue

that higher education does not teach students the practical skills to be successful in today's economic society.

The Department of Education and the National Education Association websites argue that the cost of higher education is a growing problem. According to the Department of Education website, there has been a shift in the last ten years of most students paying for higher education with loans instead of grants. Other problems include a lack of government funding, the shrinking of full time faculty, faculty shortages in certain states, and low pay for instructors, and the cutting of budgets for departments, sports programs, and activities that are considered unnecessary. The National Education Association website (2001), Noble (1997), Collins (1979), and Margolis (1979), argue that market capitalism is the essential driving force behind the changes and problems in higher education. There is now a pre-occupation with productivity that accompanies a business model that is more concerned with efficiency that with the quality of education. Margolis (1979) and Collins (1979) argue that many higher education institutions are sacrificing quality education that can enrich a person's life over time at the expense of an efficient credential system.

Whatever combination of arguments that one chooses to believe, clearly there are people that believe there are problems in higher education. What these problems are, and how they can be solved depends on who is asked. It appears several that groups believe the solution to many of the problems in higher education is to apply technology, specifically computer technology, to higher education in hopes of

solving the problems. Therefore, this dissertation is an attempt to define online education from the perspective of the online institutions, literature, and Web Based Education Commission testimonies.

The website at Stanford University (2000) argues that since today's economy is a global economy; students need to be trained how to be successful in a global economy in order to be successful in life. Online education and distance learning are seen as favorable alternatives to traditional colleges and universities for students who are interested in receiving training on a global economy. Indeed, several of the online institutions claim that online education will be better able to address many of the problems in higher education better than the traditional forms of higher education delivery.

It can be argued that one of the purposes of higher education is to serve, as a structure that provides training for socially preferred jobs. However, to declare that the primary purpose of higher education is to serve as the official structure for job training is constraining. That is only one aspect of the purpose of higher education. To provide a rounded argument of the purpose(s) of higher education, a review of the theoretical literature on the purpose of education is necessary. This dissertation begins with such a review. It includes the more recent literature addressing compulsory education. The literature that addresses why the United States chooses to enforce mandatory school attendance policies for their younger citizens can provide insight regarding the socially declared purpose of higher education. If students are required to have several years of compulsory education,

then why do many individuals feel it necessary to complete more schooling after their compulsory education is completed?

Included at the end of the theoretical discussion of the purposes of higher education are the Marxian concepts of ideology, hegemony, and the fetishism of commodities as alternate explanations for the rise of computer technology to the forefront of the education process. If higher education institutions are considered important by society, then what role do they play in the creation of ideology and hegemony? Do online institutions reinforce the existing ideology, or are they the creators of a new form of social ideology? The idea that technology will better address many current problems of higher education suggests that parts of the United States society may have a technological commodity fetish. A discussion of the concepts of ideology, hegemony, and the fetishism of commodities provide for a theoretical background that will be used in the conclusions to assist in the evaluation of the various truth claims of online institutions.

Why does this dissertation choose to use the social constructionist approach to understand what online distance education is, from the viewpoint of the online institutions? Online distance education in higher education does not have a long or developed history, so a historical evaluation of online distance education would not be suitable because of the lack of data available. It is only recently that a few schools have started to implement degree programs available from online courses only. Although there is not a long history of research work on online education, there is a long tradition of the use

of technology in classrooms. The historical use of technology in the classroom can assist in understanding the current technology trend. For example, according to Cuban (1986), "Thomas Edison stated in 1913 that books will soon be obsolete in the school, and scholars will soon be instructed through the eye" (Cuban, 1986, p. 11). Thus, to understand the various online institution truth claims about higher education, it is necessary to discuss the history of technology in the classroom.

Finding the responses of online institutions to questions such as what is distance learning, or what can online education do for people, or how does online education differ from traditional education, seemed an important task to complete. In answering these kinds of questions, the hope is to understand (and perhaps justify) why so many institutions of higher education are dedicating large percentages of their budgets to develop online programs. If online education is poised to drastically change the current structure of higher education, as we currently know it, understanding how online institutions define online education is important. Even if online education becomes just another passing fad, it is still critical to understand why so many schools have invested so much money to develop online higher education programs.

Also, important in the analysis of the online institutions truth claims are the demographics of online users. One can argue that knowing the true demographics of online users and how the use the Internet is difficult. However, several research companies provide these services, and combining their results will provide approximations that should serve. Internet user demographics, what Internet users do when they go

online, how people get online, the availability of technology in most homes, and other issues involving potential student access to online institutions will be reviewed based on several research data sets. This review will assist in comparing the truth claims of the online institutions to the current Internet demographic and structural reality.

In this dissertation, online education institutions were selected by a certain criterion. In order to identify candidates for online institutions, an online review of professional articles, research studies, and available information about the schools was conducted. The argument for such a procedure is that prospective online students will attempt to find information about an online institution via a web-based search engine. Online institutions are unlikely to use other, traditional forms of information retrieval such as libraries or printed journals as main sources of information for individuals interested in talking online courses. Therefore, five of the most frequently used search engines (according to emarketer.com, and nielsen-netratings.com) were used to locate potential online institutions. Every time an institution was mentioned in a direct search or was on a website that resulted from a search, the name of that institution was recorded. This listing served as the initial set of online institutions.

For this dissertation material used for analysis of the online institutions truth claims were research work that used consistent practices and techniques to gather, process, manipulate, and interpret information that could subsequently be used to test ideas and theories. In all cases, the work used in this dissertation declared a particular

methodology that was clearly explained so that other researchers could try to replicate the results. Testimonies from the Web Based Education Commission were also used in the comparative analysis of the online institution truth claims. The Web Based Education Commission was established by the United States Congress and President Clinton to explore the potential of the Internet and other technology-mediated learning strategies, and to identify the obstacles that inhibit students from realizing that potential. All the documents on the website that described the Web Based Education Commission, what studies it reviewed, and how it defined online education were collected and analyzed. Given the nature of the truth claims presented, it is important to be able to evaluate whether the institutions used factual or rhetorical based discussions when talking about online distance education. One way to check for this is to look for support of the truth claims from other information sources. Another way is to analyze the material for rhetorical language used. To assist in the analysis of the rhetorical nature of the online literature and the Web Based Education Commission's testimonies, a computer program called Diction was employed to help analyze the truth claims and to measure the levels of rhetorical language used. A piece of information was considered highly rhetorical if claims were made that contained discourse concerned primarily with style or emotional affect instead of providing evidence in support of the claims.

Finally, the conclusion to this dissertation attempts the difficult task of making the connections among the various legitimate

sources of knowledge. Whether the online institution truth claims are supported by other, legitimate sources of knowledge are assessed. In those situations where truth claims of the online institutions are not supported, or are only supported based on one version of legitimacy, a discussion regarding how multiple perspectives of the truth claim could be viewed occurs. In the end, the hope is to be able to define in a uniform manner what online distance learning is, how it compares to traditional learning, and what its place in the higher education system is, as declared by these universities.

CHAPTER II

LITERATURE REVIEW

Introduction

This chapter starts with a brief definition of the social constructionist perspective and how the perspective applies to this research. Next, the definitions of technology, distance learning, and traditional learning are provided for clarification of how these terms are used in this dissertation. These are followed by a review of the literature regarding the purposes of education, the history of distance learning, and the history of the use of technology in the classroom (e.g., radio, film, television, computers, and the internet). At the end of the chapter, there is an examination of the current demographic and technological trends regarding of the Internet.

Social Constructionism

Social constructionism may be defined as "a general term sometimes applied to theories that emphasize the socially created nature of social life" (Marshall, 1998, p. 609). The approach is usually traced back to the work of W. I. Thomas and the Chicago sociologists, as well as phenomenological sociologists such as Alfred Schultz (Marshall). Such approaches emphasize the notion that society, as an individual understands it, is actively and creatively produced and interpreted by humans. Furthermore, the social world is made or invented rather than

merely given or taken for granted. Society and the worlds that individuals live in are interpretive nets woven by individuals and groups, rather than objective truths and realities that are similar for all individuals.

The origins of the social constructionist approach are usually identified with the book The Social Construction of Reality by Peter Berger and Thomas Luckmann (1966). For Berger and Luckmann, the basic features of social order are captured in the principle that society is a human product. "Reality is socially constructed and …the sociology of knowledge must analyze the process in which this occurs" (Berger & Luckmann, 1966, Pg. 1).

Much of Berger and Luckmann's (1966) work derives from the sociology of knowledge. According to Outhwaite and Bottomore (1994), it was Max Scheler who first coined the term "Wissenssoziologie" or sociology of knowledge in the early 1920s. Scheler extended the Marxist notion of substructure by identifying different factors which Scheler believed conditioned thought in different historical periods and in various social and cultural systems. These real factors have "sometimes been regarded as institutionalized instinctual forces, and as representing an a-historical concept of substructure" (Outhwaite & Bottomore, 1994, p. 638). These factors are the commonsense ideas that exist in a particular society and among particular groups in that society. Commonsense ideas in this instance refer to the routine knowledge that members of a particular societal group have about their everyday world and activities in which they participate.

Outhwaite and Bottomore (1994) also suggest Karl Mannheim provided an ambitious foundation for a sociological analysis of societal and group knowledge. Mannheim (1947) did not think that scientific and technical knowledge could be subjected to sociological analysis. Instead, Mannheim conducted research into the social conditions associated with different forms of knowledge. Such studies examined competing ideas, political philosophies, ideologies, and diverse cultural products. Mannheim pursued the idea that sociology of knowledge is central to any strategy for creating a rapprochement between politics and reason. According to Outhwaite and Bottomore (1994), Mannheim believed that the sociology of knowledge could be used as a pedagogical and political mode of encountering and acting on the other forces making up the political world. It could also be used as a weapon against prevalent myths and as a method for eliminating bias from social science, so that it can master the fundamental public problems of the time and guide appropriate political conduct.

Berger and Luckmann (1966) made it clear that they wanted to get away from the previous theoretical viewpoints of the sociology of knowledge. Indeed, they claim that they owe the fundamental insight into the necessity for the redefinition of the sociology of knowledge to Schutz because he concentrated on the structure of the commonsense world of everyday life. "The sociology of knowledge must concern itself with everything that passes for knowledge in society" (Berger & Luckmann, 1966, pp.14-15). Everyone in society participates in the construction of knowledge in one way or another. Thus, understanding knowledge from

the ideological (intellectual) perspective as Mannheim suggests, limits the social understanding of the majority of the individuals in society. "The theoretical formulations of reality, whether they be scientific or philosophical or even mythological, do not exhaust what is real for the members of a society" (Berger & Luckmann, 1966, p. 15).

According to Berger and Luckmann, the sociology of knowledge must first concern itself with what people know as reality in their everyday non-theoretical lives. In other words, commonsense knowledge rather than ideas must be the central focus for the sociology of knowledge. "It is precisely this knowledge that constitutes the fabric of meanings without which no society could exist" (Berger & Luckmann, 1966, p. 15). The sociology of knowledge therefore, must concern itself with this social construction of reality.

This dissertation is an attempt to look at a social structure that may influence how individuals construct commonsense beliefs about online distance education. It can be argued that at this point in history, for a substantial number of Citizen of the United States, it is commonsense to believe that technology, especially computer and internet based technology, will help or improve the current status of education. Trying to understand how this commonsense knowledge is derived, and whether it has any connection to reality (as we currently know it), will allow individuals to partially understand why higher education institutions are investing in online distance education programs.

Important Definitions

Technology

The first term to define and discuss is technology. According to Marshall (1998) a basic sociological definition of technology is

> a term used rather loosely in sociology, to mean either machines, equipment, and possibly the productive technique associated with them; or a type of social relationship dictated by the technical organization and mechanization of work. (p. 665)

Thus, any application of science that is directed at industrial or commercial objectives, or any equipment and techniques associated with machines is technological. It is clear that the term technology is not derived from computer or even primarily associated with computers or the Internet. However, technology is related to industrial and commercial objectives, according to the The American Heritage Dictionary of the English Language (1980) and is related to the technical organization and mechanization of work. The use of technology and technological tools in education in an attempt to apply science to the educational process is completely relevant to the social constructionist perspective employed in this dissertation.

In the context of online institution literature, the concept of technology is focused on processes related to computers or the use of the Internet. Furthermore, technology itself, in the distance education literature, seems to have become reified. According to Berger and Luckmann (1966), reification implies that people are capable of forgetting their own authorship of the human world, and further, that the dialectic between humans, the producer, and their products is lost

to the consciousness. Therefore, humanity is capable paradoxically of producing a reality that denies humanity's existence. Reification is not purely limited to a mental construction of intellectuals. "Reification exists in the consciousness of the man in the street, and, indeed, the latter presence is more practically significant" (Berger & Luckmann, 1966, p. 90). The term technology in much of the distance learning literature has become a fetish, and the computer is technology's newest vessel.

Neil Postman (1993) argues that Harold Innis is the father of modern communication studies. According to Postman, Innis repeatedly spoke of the knowledge monopolies created by important technologies. What Innis meant was that those who control a particular technology accumulate power. Thus, they inevitably form a kind of conspiracy against those who have no access to the specialized knowledge made available by the technology (Postman, 1993, p. 9). In other words, the benefits and deficits of a new technology are not distributed equally. There are winners and losers because of any technological development. Where there is fame and fortune for one group, there is ruin and poverty for another.

The idea that technology, and the knowledge about it, can be used as a commodity to allow certain individuals access to material items, knowledge, or power is no different than Marxian concepts of the ownership of property, the means of production, or access to the production of Ideology in society. Therefore, when discussing technology in this chapter, the term technology, and the knowledge about

a particular technology (computers for example) will often be framed in terms of technology being a commodity that can be used to gain access to certain socially important cultural items or concepts.

Distance Education

Researchers who study distance education have discussed the characteristics of distance education. For example, Harry, John, and Keegan (1993) state clearly, "conventional students attend the schools, colleges, and universities of the world; distance education students do not. They study at home... (or) they choose not to go to school" (Harry, John, & Keegan, 1993, p. 7). Therefore, in this dissertation, distance education is any form of education where a student earns a degree (or credits towards a degree) by receiving and completing class tasks at a location other than the school and where the instructor are located. This includes a broad spectrum of correspondence courses, radio, and video, to online classes. This can include videoconference learning where, although the student goes to a formal structural building to take classes, the student is not at the same physical location as the instructor. Similarly, the term, online distance learning is the process of distance education accomplished using class materials delivered via the Internet, whether it is the World Wide Web, E-Mail, chat software, or some other communication form on the Internet.

Hybrid classes, those that take advantage of selected education technologies but primarily rely on the physical presence of the student in a classroom with an instructor are not included in the discussion.

Thus, traditional education can be defined for the purposes of this dissertation as education that is delivered in a physical location in which both the students and professor are physically (not virtually) present. Although it might seem odd to separate traditional education from new education by their use of online technologies, this is how much of the online education literature deals with the term traditional education.

The Purpose of Compulsory Education

The theoretical purposes of compulsory education can be divided into categories, using five theoretical approaches inspired by Nash (1997) and Tozer (1998): 1) Functionalist, 2) Economic-Reproductive, 3) Class-Cultural, Reproductive, 4) Integrative-Reproductive, and 5) Neo-Functional Assimilationist. In addition to the purpose of education, the major problems in the current compulsory education system will be presented for each theoretical approach.

Functionalist Perspectives

According to Johnson (2000), the functionalist perspective focuses on social systems, how they operate, change, and the consequences they produce. One of the important issues to a functionalist is interdependence, or how a particular aspect is related to other aspects of the system. Functionalist theories of the purpose of education focus on how the system of education helps to perpetuate and reinforce the current social system. They see the function of

education to be an official structure for the reinforcement of the social values of the dominant class. An early example of the functionalist perspective on the purpose of compulsory education in the United States can be found with Thomas Jefferson. "According to Jefferson a democratic society needed an educational system that would provide its citizens with the understanding and knowledge necessary for them to not only be able to pursue their own personal happiness, but also to fulfill their obligations and duties as citizens" (Button & Provenzo, 1989, p. 67). According to Button and Provenzo (1989) "Jefferson proposed that a natural aristocracy be identified by means of the educational system, one which would supplement rather than supersede the existing aristocracy" (p. 67). According to Button and Provenzo (1989), Jefferson intended public education to train individuals to be good citizens. "For the general citizenry, a system of instruction was to be established that would provide them with three years of free school" (Button & Provenzo, 1989, p. 67). Beyond basic instruction in reading, writing, and arithmetic, each individual would be provided with a general background of the concept of democracy. The second phase of Jefferson's education program was comprised of schools for those people who wished to pay the necessary tuition (with a few scholarships, based on testing, for the most talented boys). This education would be the training for politicians, doctors, and other professional positions.

Another functionalist, Calvin Stowe, a leading figure in the Common School Movement, presented additional perspective. In 1836, Stowe stated that "the foreigners who settle on our soil, should cease

to be Europeans and become Americans; and as our national language is English, and as our literature, our manners, and our institutions are of English origin, and the whole foundation of our society English, it is necessary that they become Anglo-American" (Button & Provenzo, 1989, p. 103). Biculturalism was seen as un-American, and as a potential threat to the political stability of the nation. Tozer (1998) claimed that the "massive flood of settlers from the coastal states into interior territories, the War of 1812, the controversy of slavery, the influx of new immigrants, eroded nationalism and increased alarm among American nationalists" (Tozer, 1998, p. 47). Thus, he saw schooling as the structure to prevent revolution and "a means of building a nationalistic spirit in the next generation" (Tozer, p. 48) as well as the hope that American values would be defined in accord with Protestant, classical liberal values.

According to Button and Provenzo (1989), Horace Mann took the functionalist concept of education one-step further. He did not believe education was best used as a tool for behavior modification. Instead, Mann thought education should be a structure that provides individuals with egalitarian opportunities. Mann stated, "education is not only a moral renovator and a multiplier of intellectual power, but also the most prolific parent of material riches…it is not only the most honest and honorable but the surest means of amassing property" (Button & Provenzo, 1989, p. 106). Mann agreed that common schools would create a uniform political consciousness. "Once the common schools were properly established, there would be no social issue or problem that could not

eventually be solved by them through their educated citizens" (Button & Provenzo, 1989, p. 107). "Social disharmony threatened the stability of society. The common school was to become the central institution to ameliorate this situation" (Tozer, 1998, p. 49).

For Mann, common schools were for everyone, and all citizens should go to school. However, many education experts (Morrow & Torres 1995; Kozol, 1991; Button & Provenzo 1989; Ogbu, 1978; Bowles & Gintis, 1976) argue that this did not apply to certain groups, minorities in particular. At the time of common schools, women were only starting to attend schools that were not just for learning domestic duties. According to Button and Provenzo (1989), public schools in the 1800's and early 1900's did not educate women for professions or occupations other than teaching.

According to Button and Provenzo (1989), a later, and more conservative functionalist perspective was provided by James Carter in his book Essays upon Popular Education. Published in the mid 1920's, Carter maintained, "poor and ignorant members did not seek education. Unless properly educated, they posed a serious revolutionary threat to the integrity of the republic" (Button & Provenzo, 1989, p. 103). Button and Provenzo argue Carter believed that the United States government had an obligation to eradicate ignorance through the enforcement of compulsory education.

Button and Provenzo (1989) argue "the Quakers under George Fox in 1782 developed African schools in Philadelphia" (Button & Provenzo, 1989, p. 45). Yet, laws in states such as Louisiana and Mississippi in

the early 1830s made it illegal to teach slaves, free Negroes, or mulattoes reading or writing (Button & Provenzo, 1989, p. 146). After the Civil War, there was particular resistance to blacks being educated. Ultimately, it led to separate school systems for them. Button and Provenzo (1989) and Van Scotter (1991) argue that these schools were often poorly funded and structurally inferior.

There also was schooling available for Native Americans in the late 1700's. The early schools created for Native Americans were "first intended to Christianize and civilize them" (Button & Provenzo, 1989, p. 45). These schools taught blacksmithing, domestic skills for Native American women, and how to function effectively in society. "Few promoters of Indian schooling were aware that most Indians saw themselves as surrendering their own culture and tradition if they accepted the white man's civilization" (Button & Provenzo, 1989, p. 148). The Carlisle School in Florida was one such school that promoted Native American assimilation and acceptance of the white "civilized" culture. However, schooling available to Native Americans was not equal to the quality of education for most whites. It also demanded that Native Americans forget their traditional ways, and learn the ways of the white culture. Even for many Native Americans today, the conditions of the current Native American school systems have changed little from how poor they were decades ago (Bennett, 1999; Kozol, 1991; Button & Provenzo, 1989).

For women, early public education primarily taught them domestication skills. Prior to 1820's, girls had been "excluded from the

sole form of public secondary education" (Arum, 2000, p. 125). Unlike minorities however, public secondary schooling was soon overwhelmingly coeducational. One of the explanations for this rise in the number of women in education was to create a trained body of people who could teach classes in the small one-room schoolhouses across the United States (Bennett, 1999; Kozol, 1991; Button & Provenzo, 1989; Bowles & Gintis, 1976). Since being a common school teacher in a small town did not pay well, women were considered a natural target to fill the needs of an expanding nation. Based on an 1882 survey, only 19 of 196 cities reported single sex high schools, while only 12 cities out of another 628 reported that they had single-sex high schools (Arum, 2000, p. 122).

Early textbooks were dominated by males at a ratio of 5:2 (Van Scotter, Haas, Kraft, & Schott, 1991; p. 221), males dominated discussions in the classroom, males dominated school subjects, and lecture topics reflected a male-centered voice. Thus, Bowles and Gintis (1976) argue, "the fact that female teachers were much cheaper to hire than males may have provided the main impetus for the femininization of the teaching staff" (p. 171). Button and Provenzo further note that many women in the late 1800's and early 1900's were only allowed access to the pursuit of education if their plans were to pursue a position in school training or as an instructor.

The record for blacks is especially clear. With laws such as Plessy V. Ferguson in 1895, which provided the "separate but equal" rationale for schools in the south, educational equality was far from reached. According to Button and Provenzo (1989), and Ogbu (1978), in

most of the South there was public schooling for black children, but of an inferior kind. Buildings were old, often rickety, unpainted, far too small, far too overcrowded. Black teachers salaries were smaller than whites. There are many historical examples of black communities coming together to help improve economic conditions, such as offering to fix and paint buildings. Even after Brown V. Board of Education in 1954 overturned Plessy V. Fergusson, it was not until the Civil Rights Act of 1964 that school integration started to take place nationwide.

Although there are several different variations of the functionalist perspective of the purpose of compulsory education, a clear theme is that all citizens of the United States needed to learn the ideology of the country. It was considered desirable that individuals not only learn, but also to believe and practice the values of the dominant class. It is clear that the purpose of compulsory education from a functionalist perspective was to reinforce the ideas and values of the dominant class in the subordinate classes.

Public compulsory education in the United States does not have a history that supports the notion that education has been available for all Citizen of the United States. Even when it has been available to women, the poor, and minorities, the educational experiences have often been inferior to those available to many middle or upper class white families. Even when politicians and educators have spoken of the need to educate everyone, whether deliberately or not, rarely did the declared educational goal of reaching everyone in the United States occur. Thus, a problem of the functionalist perspective of education is

often the disregard of the possible negative impact of on the powerless.

The Economic-Reproductive Perspective

Bowles and Gintis's book Schooling in Capitalist America is one of the books that are cited most frequently with regard to the economic-reproductive perspective. The basic goal of compulsory education, according to this perspective, is to have society reinforce the economic values of the dominant class in all aspects of life. In this instance, Bowles and Gintis (1976) are reacting to rather than supporting the circumstances that they believe exists in capitalist societies. Bowles and Gintis (1976) argue that in capitalist societies, rather than serving the interests of society as a whole, educational institutions are in correspondence with the needs of the production system and the interests of capitalists and managers. According to Bowles and Gintis (1988), "the origins of public education were used to make better trained employees for the factories" (p. 19).

For this reason, many economic-reproductive theorists argue that education can only be fundamentally changed by abolishing the capitalist mode of production (Bowles & Gintis, 1976; Morrow, Torres & Torres, 1995). Bowles and Gintis argue that compulsory schooling was imposed on the poor by the wealthy and the middle class. (Hurn, 1993, p. 83). They further deny that the development of mass education has created equality of opportunity. They do believe that schooling helps to develop society, but that this development results in the solidification of control over the economy by the capitalist elite.

Bowles and Gintis's early work is often criticized for assuming that the spread of public education occurred the same way everywhere in the United States, and for assuming the main purpose of education is to prepare children to work in factories (Richardson, 1986; Hurn, 1993). Still, Bowles and Gintis (1988) contend that

> The capitalist enterprise is not characterized by civil liberties, due process, democratic participation, or guaranteed rights. Rather, it is characterized by rights vested in property rather than persons and the control of the production process by capitalists and managerial personnel, giving rise to a class structure quite inimical to democratic principles. (p. 17)

Even though Bowles and Gintis take the position that the purpose of compulsory education is to develop a capitalist class for exploitative purposes, it seems clear that they do not think the idea of compulsory education is wrong.

Class-Cultural Reproductive Theories

Class-cultural reproductive education theories claim that attention should be given to the meanings and strategies of individuals as well as to social structures in the education process. From this perspective, the educational system is primarily shaped by the struggle of different social classes attempting to use it to improve their own status within the overall system of social stratification. An important consequence, therefore, is that educational credentials and qualifications may have no necessary technical and economic functions. They may simply reflect the ability of certain individuals to obtain certification.

Collins (1979) presents a historical analysis contending that the

enormous expansion of education since the mid-nineteenth century has had little effect on increasing social mobility. Instead, Collins believes that education is a central part of a system of cultural stratification, and the reason most students are in college is that "they want a decent job" (Collins, 1979, p. 192). He also argues that

> It is apparent that mass elementary education was created not primarily in response to industrial demand nor in response to a publicly felt desire for its practical benefits, but rather in response to the political influence and persistence of the descendents of the colonial clerical elite who made the political alliances and ideological appeals necessary to further their cause. (p. 107)

In supporting this position, Collins points to the fact that football games, status-conferring rituals (fraternities and sororities for example), and the centrality of social life have spread as important elements of higher education. Moreover, since higher education influences public compulsory education, Collins argues that our current education system has developed into a situation of credential inflation. To Collins, school becomes a forum in which one obtains a level of status credential that in turn, allows one to compete for various levels of status and access to economic goals. "The United States is the most credentialized society in the world, and its educational system is correspondingly unique. Where most industrial countries have had relatively small secondary school systems, the United States has not only long pushed toward universal high school attendance, but in the 1960s also came close to universal completion of high school by the teenage population" (Collins, 1979, p. 91). According to Collins, college attendance has also risen in recent decades due in part to the

demand by many Citizen of the United States for the universal completion of high school by the teenage population. Therefore, from Collin's perspective, the purposes of compulsory education are different for different groups. School for Collins has become a vehicle for individuals to dictate their influence over others based on the level and status of their credentials.

Bourdieu (1973) argues that the compulsory educational system contributes to "the reproduction of the structure of power relationships and symbolic relationships between classes, by contributing to the reproduction of the structure of the distribution of cultural capital among these classes" (Bourdieu, 1973, p. 487). To Bourdieu, the object of education is the production of habitus that system of dispositions, which acts as a mediation between, structures and practice. In other words, it is the system of learned and shared behaviors that give individuals the socially perceived correct ways of behavior. These socially perceived correct of ways of behavior vary from group to group. According to Bourdieu, those who are powerful have their own set of mores, values, taboos, and culture that distinguishes them from others. Therefore, prejudicial behavior from the compulsory educational structure arises not directly because of class, race, or gender, (though these factors do exist) but indirectly from learned (or not learned) behaviors that help individuals navigate the structure. For example, a large proper English vocabulary may help individuals pass GRE tests, even though significant numbers of students may not be subjected to such vocabulary in their everyday conversations, class assignments, or

examinations.

Bourdieu further argues that education creates symbolic wealth that in turn, legitimates elements of culture. One piece of culture, say classical music, may be given a higher level of prestige by certain groups than another say pop rock music. The knowledge of classical music, then, may be a cultural badge to inform others that an individual is part of that cultural circle. In short, it is a way to discriminate based on symbolic capital. However, discrimination may occur without consciousness, because according to Bourdieu (1973), individuals naturally tend to gravitate to like individuals. Thus, while discrimination on this level of cultural capital may not be intentional (for some), the effect of exclusion occurs just the same. From Bourdieu's perspective, the cultural capital of elite groups works in schools and universities to reproduce class boundaries both within and outside of ruling groups.

In theory, if a family had the choice, and they sent their kids to the better schools, and their kids performed well and were awarded their degrees, the kids would be able to join the ranks of the elite. Yet, Bourdieu (1973) says that

> the value of the diploma, outside the specifically academic market, depends on the economic and social values of the person who possesses it, inasmuch as the yield of academic capital…the diploma is only an additional qualification to his legitimately succeeding his father or to his occupying the director's post guaranteed for him by his network of family relations. (p. 507)

Therefore, getting a diploma is only one of the necessary credentials. By itself, it may not get you invited to the party. Indeed, the further one goes away from the immediate jurisdiction of the

school, the more the diploma loses its particular effectiveness as a guarantee of a specific qualification. A diploma becomes a necessary condition, a symbol of authorization, and a right of access for individual. However, this symbolic authorization can only be given full value by those who control the cultural capital that it represents. Education is for everyone, but only the elites who get the proper diplomas will be allowed by other elites to participate in the creation and reward of cultural capital.

Although Collins and Bourdieu approach this perspective from different angles, a commonality is that the purpose of compulsory education is to give individuals certain social skills, traits, values, and certificates that will allow them access to certain levels of society depending on where they received their educations. Clearly, both compulsory and higher education are not same for everyone, and the purpose of education for individuals does not mean the same thing. For some individuals in the United States, compulsory education trains them to be factory or service industry workers. For others, compulsory education prepares them for an upper class future.

The Integrative-Reproductive Perspective

The integrative-reproductive perspective argues that there is an inevitable subjective-objective split regarding the proposed purpose of compulsory schooling that ultimately cannot be resolved on a functional theoretical level (Morrow & Torres, 1995). Morrow and Torres argue that the process of education and changes in education can only be understood

through the ideas of hegemony. In their view, a focus on the state as the mediating point through which various economic, class, and technical factors are regulated to create social order points to what the purpose of compulsory education system that strives for the reproduction of the dominant social values and for the social consensus of those values.

One of the leading authors representing the integrative-reproductive perspective is Freire (1997). Freire's work is frequently cited in works that call for a revolution of the compulsory education process and education in general. For Freire, "there is no neutral education. Education is either for domestication or for freedom...an initial choice is required of the educator" (Freire, 1997, p. VI). In his view, the current compulsory education system is based on what he calls the banking model, which is essentially teacher-centered rather than student-centered. From this view, the teacher knows everything and students know nothing; the teacher thinks and the students are thought about; the teacher acts and the students have the illusion of acting through the actions of the teacher; and the teacher is the subject of the learning process, while the pupils are mere objects. Students do not learn in this model, they regurgitate and reproduce the ideas or values given to them.

According to Freire, children are not empty vessels to simply fill with "proper" information. Children are (or should be) part of the educational process, and teachers need to understand that a key role of the teacher is to challenge both the students and the reality of what is studied. Freire further argues that students learn the most when they

are part of the learning process, and when their knowledge is viewed as both important and viable when developing their own education. Unlike Socrates, who expected his students to use a questioning method to arrive at what he thought was the right answer, Freire suggests that there are multiple right answers, and that the most important educational phenomenon is the recognition of that process, and the recognition of the value of a student's journey through it.

Thus, Freire believes that students must not be docile listeners but critical co-investigators with the teacher. In this attempt, students will gain respect, not only for their own knowledge, but also for the knowledge of others. Moreover, in this flight of freedom, they will not play the banking game, which would only lure them into buying into the system that captures them. It is this shedding of the "need" to adapt that fights the changing of the consciousness of the oppressed, so that individuals cannot be easily dominated.

Giroux (1983, 1988), giving up on the ideas of the technocratic rationality that there is one truth and one correct answer for every question, further develops some of the ideas of Freire. Giroux (1988) argues that in compulsory education, teachers need to realize that current knowledge is neither neutral nor objective. Teachers should also devalue such mechanisms as standardized testing since it is (only reflective of those who possess the proper cultural capital). Giroux also believes the banking method of education should be jettisoned. In his words, "teaching must be viewed, in part, as an intensely personal affair… and the development of critical thinking is of critical

importance" (Giroux, 1983, pp. 418-419). For Giroux, the mechanisms used by compulsory education are inherently structured to reinforce the dominant ideology.

For integrative-reproductive theories, the ideal purpose of compulsory education is for liberation, and for the equalization of opportunity of all individuals. They argue for the reclamation of the system (or, some would argue, claim it for the first time) in order for groups to respect and value the cultural capital of other groups, as well as to have the opportunity to produce their own. In their model school situation, all values and ideas are important.

The Neo-Functional Assimilationist Perspective

The declared goal of the Neo-functional assimilationist perspective is to put the education system back in its proper place. According to Lasch, (1996) Bennett (1992), Bloom (1987), and Kilpatrick (1992), their declared purpose is to stop the failures of the current education system. Neo-functionalists differ from functionalists in that compulsory education is not just about making immigrants and poor people good citizens. Rather, compulsory education should be used to provide students with good moral values, job training, and a sense of purpose in student's relation to the United States. In order to stop the failures in education, neo-functionalists believe it is important to implement such ideas as cultural literacy, curriculum redesign, the implementation of moral education, the implementation of standardized tests in public schools to measure students success, and the professionalization of the

curriculum. Some of the perspectives of Neo-Functionalists may seem to be aligned with the class-cultural reproductive 22 and the economic-reproductive perspectives. This is because neo-functionalists celebrate ideas as positive and highly functional to a well-run society. Collins, Bourdieu, Bowles, and Gintis discuss think are negative and dysfunctional.

According to the neo-functionalist perspective, the compulsory education system is still working (although it is damaged) to create equity for those individuals who choose to work hard at the American dream. According to Nash (1997), the neo-functionalists identify a number of problems with the current education system: too many elective courses in high schools and colleges, historical revisionism, moral relativism, more democratic classrooms, reducing the importance of patriotism, and de-emphasizing the importance of character as a goal of education. Therefore, if the problems within the system could be corrected, the education system would be able to return to its original purpose of communicating morality, equality, and truth. In order to achieve this purpose, there are six certain specific goals of compulsory education to which the neo-functional theorists subscribe. These can be summarized as follows:

1. Students need to speak English;

2. Students need to know certain written works (i.e., be culturally literate);

3. Students need to know certain codes of accepted behavior (i.e., Moral Literacy);

4. Students need to be trained and prepared for future jobs;

5. Students need to know about democracy, the country's history, patriotism, and government; and

6. Students need to be immersed in math and science programs in order to compete with foreign students.

The Concepts of Ideology, the Fetishism of Commodities, and Hegemony

As discussed earlier, it can be argued that the concept of technology itself has become reified in the current distance learning literature. It also seems that the concept of technology exists as an independent entity in the psyche of many Citizen of the United States. It is as if technology itself can be called upon when individuals need answers to their problems. In order to explain why the concept of technology has become reified, a discussion of the Marxian concepts of ideology, the fetishism of commodities, and hegemony is important.

An ideology is " a set of cultural beliefs, values, and attitudes that underlie and thereby to some degree justify and legitimate either the status quo or movements to change it" (Johnson, 2000, p. 151). From a Marxist perspective, most ideology reflects the interests of dominant groups as a way to perpetuate their privilege. According to Johnson (2000), this is especially true with oppressive systems that require elaborate justifications in order to continue functioning. White supremacy groups in the United States, for example, include ideas in their doctrines about racial differences. They use these declared differences to justify and defend white privilege. In a more general

sense, the culture of a social system includes an ideology that serves to explain and justify its own existence as a way of life.

Marx's (1990) notion of the ideology of groups is developed from the perspective of the relations of individuals within the means of production. This means a group's ideology is largely based upon their relation to such things as land and business ownership, product exchanges, and banking (whether they are in control of the means of production). These interactions are largely determined by the economic arrangements of a society, and in class societies operating under capitalism, ideologies are often distorted by class interests. In Marx's view, those who dominate the economic system are also seen as dominating other aspects of social life in their own image and interests. The most important of these areas of dominance are a society's superstructure, the state and institutions such as schools, religious organizations, and the mass media that play a vital role in creating consciousness. According to Johnson (2000), dominance of ideology is obtained through the control of the official structures of dissemination of cultural beliefs, values, norms, and attitudes that together provide the material for society and its members to construct and interpret social reality.

The second notion, that ideologies are leave in by class interests, is often expressed in the concepts of a dominant class ideology and false consciousness. The former suggests, "subordinate classes and minority groups tend to accept their disadvantaged condition because the culture in which they live is largely controlled by dominant

groups" (Johnson, 2000, p. 94). Furthermore, culture is important because it contains the basic ideas that individuals in a society draw upon in constructing their sense of what is real, important, and expected. These basic ideas, in turn, are widely promoted by educational institutions and the mass media, all of which are heavily influenced by the dominant class, whose privilege they support.

Marx (1990) defined class-consciousness as a social condition in which members of a social class are actively aware of themselves, their condition, and their class status. False consciousness, therefore, is a lack of such awareness, resulting in distorted perceptions of the reality of class and its consequences. It can be argued that Marx (1990) believed many individuals who allowed themselves to be exploited by those who control the means of production did so because they suffered from false consciousness. Such individuals believed their production of commodities was not of value the dominant ideology of the controlling class regards workers and producing commodities with little value.

For Marx then, one's relation to the relation of the means of production determines the individual's ideology. Any concept of individual thought is cast aside, because in order for an individual to have consciousness, an individual must produce. Because of capitalism and the industrial revolution, an individual must produce within the structure of economics. Therefore, an individual's consciousness is created from participating in economic exchanges. The informal structure (group interactions), the relation to the means of production,

and the formal structures (laws, church, etc.), all creates ideological principles and cultural ideas. These principles and ideas combine with the group's perception of the world to help construct the ideologies individuals and their social groups.

The fetishism of commodities is a concept that Marx (1990) used to help explain the tendency of many individuals who live in a capitalist society to treat commodities as fetishes. A fetish is a material object believed among ancient cultures to have magical or religious power (Morris, 1980). Therefore, to some extent, the fetishism of commodity occurs when individuals conceive of their social relations to the means of production as if this relationship were a natural thing. According to Marx (1990), producers do not come into contact with each other until they exchange their products. Individuals, therefore, do not have social relationships with others except when they engage in the act of exchange of objects. For this reason, according to Marx, the objects come to stand for the social relationships.

When a society acts as if a material object or the services conducted by individuals (such a person washing someone's car) have natural values in relation to other goods and services in the market place, and when a society attributes material objects and services as social relationships, then a fetishism of commodities exists. In The result is to "brainwash" the masses into a state of false consciousness, where the masses feel that the formal structure and economic structure are fair and equitable for everyone.

In short, "when individuals define themselves by what they produce

or consume, the objects of production and consumption become the symbolic indicators of their identity. Hence, individuals create common sense out of the interaction of production and consumption" (Marx, 1990, p. 1003). The problem with this kind of thinking, according to Marx, is that it tends to obscure the value of production by those who produce goods. It also ignores the underlying social relationships among people that are the actual sources of what society attributes to commodities.

The notion of fetishism of commodities does have problems. For example, it does not account for the individual agency of humans. Individuals can participate in the means of production and the exchange of commodities and services, and still separate these interactions from the interactions they have with their friends and family. Nevertheless, what is important in the concept is the possibility that in a capitalist economy, a particular product or service may become highly valued over other similar forms of a product or service. If it persists, the high value of this particular commodity or service may be considered commonsense by those that participate in the market. Such products or services can thus have a socially perceived "magical" value that other products or services do not have. Such a commodity or service may even hold an exaggerated value and given a deified status.

In this dissertation, the argument is that technology (specifically computer and Internet based technology) currently holds such an exaggerated level of status by many people in the United States. Thus, for many, computer and Internet technology have become fetishized commodities. The theoretical concept of the fetishism of commodities

can help provide an explanation for why so many individuals believe online education technology can solve the problems of higher education without the support of research, experience, or other socially constructed facts.

In order to account for individual variations in reactions to the dominant ideology in a capitalist system, the theoretical concept of hegemony can be used. Developed by Antonio Gramsci (1991), hegemony refers to a particular form of dominance in which a ruling class legitimates its position and secures the acceptance (if not outright support) of those below it. The behaviors and ideas of those who are subordinate to the dominant class derive from the society's culture that identifies certain behaviors of a group or society as commonplace, or part of common sense behavior. These common sense ideas support the normatively correct ideas of the current structure and predispose individuals to not question their "reality." Common sense ideas, therefore, reinforce how individuals view, behave, and choose to enact the perceived choices that they believe are available to them. Hegemony is different from ideology in the respect that with hegemony, subordinate individuals and groups in a society actively participate in the creation and perpetuation of the common sense ideas that contribute to their own oppression. According to Gramsci (1991) to some degree, all social dominance is based on some form of coercion and the potential for those in control of the means of production to enforce their ideology provides for a flexibility in which social groups and individuals to varying degrees, participate and believe in, and perpetuate the dominate

ideology.

Distance Education

Vornbrock (1998) asserts that distance education is more than 200 years old. "The Boston Gazette ran ads for shorthand lessons by mail in 1728. Australia's University of Queensland offered an external degree program in the 1890s. Columbia University offered extension programs in the 1920's while other schools began using radio in the 1930s" (Vornbrock, p. 7). Pennsylvania State University traces the history of its distance education back to 1892, when it offered correspondence courses to farmers (Maloney, 1999). While the first distance learning classes used correspondence as the form of communication between student and instructor, the use of other technological innovations were just around the corner. Radio, television, audiotape, interactive videotape, satellite transmission, and live video classes have been used in providing courses to students. Currently, most of these media are still in use. However, the advent of the Internet and the World Wide Web, coupled with the explosion in computer use in the 1980s and 1990s, created a boom in online distance education (Maloney, 1999).

According to the National Center for Education Statistics ((Lewis, Snow, Farris, & Levin, 1999, p. 50), an estimated 753,640 students formally enrolled in distance education courses during the 1994-95 academic year. In 1997-1998, the numbers rose to 1,632,350. These numbers are compared to 14.3 million students enrolled in higher education in 1997 (Snyder & Hoffman, 2000). According to the NCES, most

higher education classes are directed at traditional students, with few classes designed specifically for non-traditional or working students. However, in 1997-98, the percentage of public 2-year institutions offering some form of distance education courses grew from 58% to 72%, and the percentage of public 4-year institutions offering distance education courses increased from 62% to 79% (Lewis, Snow, Farris, & Levin, 1999). In 1997-1998, 23% of the institutions that offered distance education courses (e.g., correspondence, televised and video taped lectures) offered degrees that their students could complete by taking distance education courses exclusively, and 7% offered certificates that could be completed in this manner (Lewis, Snow, Farris, & Levin, 1999).

In recent years, postsecondary institutions have also been adding online classes to their repertoire of distance education classes. By the summer of 1999, Penn State's online program had 760 students. Connecticut State University's online program had 446 students, and the Colorado Electronic Community College, (which administers the online offerings of the fourteen colleges in the Colorado community college system) had 672 students (Maloney, p. 18).

Steiner states that distance education "is instructional delivery that does not constrain the student to be physically present in the same location as the instructor" (Steiner, 2000 p. 1). According to Steiner, there are two major categories of distance education: synchronous and asynchronous. Synchronous distance education allows the simultaneous participation of all students and instructors. Although the students

and instructor may not all be in the same geographical location, the class operates in real time. Indeed, the advantage of synchronous instruction is that teacher/student interaction is done in real time (Steiner, 2000). Forms of synchronous delivery include interactive TV, audio-graphics, computer conferencing, and Internet Relay Chatting (IRC).

Asynchronous distance education means that the communications between instructor and student may not take place at the same time. With asynchronous distance learning, the simultaneous participation of all students and instructors is neither required nor likely. Students do not need to be gathered together in the same location or participate at the same time. Students are expected to choose their own instructional time frames and gather their learning materials according to their own schedules. Thus, asynchronous instruction is more flexible than synchronous instruction (Steiner, 2000).

The effectiveness of distance education, regardless of its modality, is a matter of some controversy. Some scholars (Schlosser & Anderson, 1994; Souder, 1993; Martin & Rainey, 1993; Bernt & Bugbee, 1993; Egan, 1991; Ross & Powell, 1990; Whittington, 1987) also argue that research supports the position that distance learning is as good or better than traditional forms of education. For example, Chute, Balthazar, Poston (1989) believe that the research on delivery modes and the correlations with student achievement outcomes have shown that students learn better via television training than via face-to-face instruction. Russell's (1999) review of distance learning research

states that there are 355 reports, summaries, and papers on distance education showing that distance education is as good as or better than traditional modes of education.

Similarly, Heinich (1991) believes that the there already is enough research to show that distance education and computers in education work effectively. He asserts that it would be nice in conducting evaluation research on online classes if we could unequivocally prove the effectiveness of technologically based instruction (Heinich, 1991). However, he argues,

> the primary purpose of research in any applied field is to improve, not prove, the technology…and at this stage of our development, research on the specific instruments of instruction is far less important than research on the systems for which they are intended. (p. 76)

He further states, "a technology survives because of faith, continuing internal improvement, an institutional structure that encourages and facilitates continued development, and an environment that permits a new technology to seek the best avenues for its contribution" (p. 77).

Saba (2000) is also a supporter of distance education, but thinks that the process needs to be adjusted. According to Saba's experience, (2000) it is becoming apparent that to achieve quality in distance education and learning, the students must be prepared, or at least screened for their potential ability to be successful in learning at a distance. A help desk should be provided for students to respond to technical problems. Instructors should form communities of learners among their students so the members can assist each other and learn from each other's experience. Students should also have access to the

instructor via E-mail or phone in case they encounter difficulty in understanding course materials (Saba, 2000).

Others support the idea of distance education but are critical of its implementation. For example, Paul (1993) notes that with many distance education classes, "faculty take longer to mark assignments, and tutors do not have the same commitment to an individual they would have in face-to-face situations" (Paul, 1993, p. 122). Paul further states that many adult students

> lack the skills to organize their competing priorities and may require assistance from the institution in ways which they may find difficult to articulate. In cases where students can enroll at the beginning of any month (as at Athabasca University), there is no formal beginning or end to the academic year. After a while, this can be very demoralizing for staff, for whom the work never ceases. (pp. 122-123)

In contrast, there are others such as Lane (1989), Hanson, Maushak, Schlosser, Anderson, Sorensen, and Simonson (1997), Phipps, Wellman, and Merisotis (1998), Phipps and Merisotis (1999), and Kerrey and Isakson (2001), who argue that there is not yet enough quality research available to draw conclusions about the effectiveness of distance education. For example, Kerrey and Isakson (2001) argue that there is not enough research and development on technology related education, especially the influence of computers and the Internet on education. Phipps and Merisotis (1999) also argue, "there is a relative paucity of true, original research dedicated to explaining or predicting phenomena related to distance learning" (Phipps & Merisotis, p. 2). They further argue that the amount of written material devoted to distance education is extensive, but largely includes policy papers, how

to articles, and essays, as well as a limited though not insignificant body of original research. With these qualifications in mind, they conclude, "with few exceptions, the bulk of these writings suggests that the learning outcomes of students using technology at a distance are similar to the learning outcomes of students who participate in conventional classroom instruction" (Phipps & Merisotis, 1999, p. 1).

However, Phipps and Merisotis (1999) also suggest that the research cited by Russell (1999) in his highly publicized review has several key methodological shortcomings. First, much of the research does not control for extraneous variables and therefore cannot show cause and effect. Second, most of the studies do not use randomly selected subjects. Third, the validity and reliability of the instruments used to measure student outcomes and attitudes are questionable. Fourth, many studies do not adequately control for the feelings and attitudes of the students and faculty. Notwithstanding the fact that the overall quality of the research needs improvement, Phipps and Merisotis (1999) further identify several important issues regarding the effectiveness of distance education that require further investigation.

According to Phipps and Merisotis (1999), there are noteworthy gaps in the distance education research. For example, the research has tended to emphasize student outcomes for individual courses rather than for total academic programs. "Virtually all of the comparative or descriptive studies focus upon individual courses" (p. 5). Similarly, most of the research does not take into account differences among

students. "Gathering samples of students and amalgamating them into averages produces an illusory typical learner, which masks the enormous variability of the student population" (Phipps & Merisotis, 1999, p. 5).

Kerrey and Isakson (2001) and Phipps and Merisotis (1999) also agree that most of the research about distance learning fails to take into account different learning styles of students. According to Phipps and Merisotis, much of the literature on distance learning "focuses on one technology and either describes its effectiveness and or compares it to the conventional classroom experience. They also argue that not only does the research focus primarily on the impact of individual technologies rather than on the interaction of multiple technologies, but also it typically does not include a theoretical or conceptual framework (Phipps, Merisotis, 1999).

One of the major problems of the research on distance education is that a number of studies have reported that students in distance education courses tend to drop out of those courses at a higher rate than students in conventional classes (Merisotis, 1999). The issue of student persistence is important, not only because dropping out may indicate a negative response to distance formats, but also because surveys of students could be excluding these dropouts, thereby tilting the student outcomes toward those who are successful (Merisotis, 1999). Much of the research does not ever account for dropout rates among online students (Kerry, 2001; Kerrey & Isakson, 2001; Russell, 1999). The research that does discuss dropout rates (Navarro, 2000; Phipps & Merisotis, 1999; Cuban, 1986) does not adequately explain why the

dropout rates of distance learners are higher.

Another shortcoming of studies of distance education is the fact that researchers often omit important information from their reports. Information such as a project's costs and the level of teacher training, for example, can be of immense value scholars who would replicate the project or compare the results of different projects (Trottler, 1998). A realistic estimate of cost is particularly important when doing research on the effectiveness of educational technology because it helps schools determine if they can afford to implement a specific format of education technology.

In response to the sharp criticisms of the Phipps and Merisotis study (1999), Merisotis (1999) defended it saying it was neutral and that they themselves were supporters of education technology. Indeed, Phipps and Merisotis were surprised at the controversy that the study generated because the final report was "a pretty straightforward and, somewhat dull review of the available literature on the subject" (Merisotis, 1999, p. 51). Merisotis claims that one of the things he has learned through the process is that too much of the debate has taken place with a "we versus they" mentality. The reality is that technology is already playing, and will continue to play, a critical role in teaching and learning (Merisotis, 1999).

A Historical Perspective of the Use of Technology in Education

There are relatively few comparative works dealing with the history of technology in education. The majority of the work focuses on

a specific technology, at or around the time that the particular technology was having (or was expected to have) an impact on education. For example, in recent works about educational technology reviewed for this dissertation, such forms as radio, film, broadcast television, and closed circuit television are mentioned only briefly if at all. It is as if the impact and historical significance of older educational technologies are irrelevant.

An example that sums up of the lack of attention given to non-computer based education technologies can be found in Means (1994). The only discussion of radio, television, or film is found in a single paragraph located in the preface to the book. She declares that older educational technologies "were supposed to create a new kind of classroom, yet they did not" (Means, 1994, p. XI). As for computer based educational technology, she says "there have been changes in both the political climate and in the people's understanding of instructional technology and its implementation that provide grounds for optimism" (Means, 1994, p. XII).

Some of the current works dealing with the history of the implementation of technology in education employ language that is rhetorical in nature and can ever be considered hegemonic. For example, "we are living in a time of great technological advance" (Means, 1994, p. 1), and "Americans have high expectations for their schools" (Knapp & Glenn, 1996, p. 3). According to Cuban (1986), when evaluating past research about education technology, many of the works provided meager descriptions of their evaluation methodology. Results that were

reported were rarely given in a concrete manner. For example, (Herman, 1994),

> Meta-analysts of course, have been advocating quantitative synthesis for years, and meta-analyses aggregating findings across a very large number of studies of computer-assisted instruction have provided confidence that these programs are effective in improving students basic skills. (p. 159)

Cuban (1986) discusses how many of the supporters of various manifestations of educational technology criticize both the compulsory and higher educational systems as inflexible and not willing to change in adopting new education technologies. However, Cuban also notes that critics of educational technology have often pointed out how vulnerable schools have been to shifts in educational technology. In the past, large amounts of money were spent for film, radio, and instructional television. Yet, all of these expenditures on educational technology resulted in massive and expensive failures. Cuban goes on to state that

> Since the mid-nineteenth century, the classroom has become home to a succession of technologies (e.g., textbook, chalkboard, radio, film, and television) that have been tailored to the dimensions of classroom practice. Yet the teacher has been singled out as inflexibly resistant to modern technology, stubbornly engaging in a closed-door policy toward using new mechanical and automated instructional aids. (p. 2)

According to Cuban (1986), educators have searched for means of communicating knowledge in simple, inexpensive, and timely ways for many years. However, in the cases of radio, film, and instructional television, non-teachers were the most vocal promoters. Classroom teachers were seldom consulted, nor were they typically involved in the adaptation of the medium to classroom use. When class content was

created by promoters, both "the content and instructional implementation of these media reflected little understanding of the daily realities of the classroom teacher" (Kent & McNergney, 1999, p. 28).

It also takes time for changes to take place in a social structure, especially one as complex as the educational institution. Part of the problem associated with the integration of educational technology is that technology changes rapidly and often. Radio was to become the "textbook of the air" (Darrow, 1932, p. 26). Radio and film were going to "bring the world to the classroom, to make universally available the services of the finest teachers" (Darrow, 1932, p. 79). Edison believed that "the motion picture is destined to revolutionize our educational system and that in a few years it will supplant largely, if not entirely, the use of textbooks" (Wise, 1939, p. 1). According to Cuban (1986), films for classrooms started to appear in schools as early as the first decade of the 1900's. In the late 1950s, after almost four decades of availability, film "was still the dream of pedagogical and administrative progressive" (Cuban, 1986, p. 18).

The growth of educational radio occurred primarily from 1925 to 1935. During this period, formal courses in distance education via radio were established at colleges and universities; professional conferences, institutes, and organizations concerned with radio education were formed. By the late 1930s the growth period of radio education had already begun to decline. "Even school systems that operate their own radio station often fail to use it properly or integrate its programming with the school curriculum" (Saettler, 1990,

p. 197).

The promises of radio and instructional film fell short by their own demise. Radio grew too rapidly for organized education, with its fixed courses of study and rules of conduct, to be used everyday in the classroom. (Darrow, 1932, p. 266). "Most teachers used films infrequently in classrooms. Films took up a bare fraction of the instructional day" (Cuban, 1986, p. 17). Moreover, before radio and film could be fully adapted, instructional television appeared on the scene. It became the new technological tool that would change education (Cuban, 1986).

In the mid 1950's, instructional television was introduced as a "tool for relieving the crushing shortage of teachers that resulted from ballooning enrollments" (Cuban, 1986, p. 28). Nevertheless, instructional television suffered the same fate as radio and film. According to studies from 1970-1981, teachers in three states (Minnesota, West Virginia, and Maryland) who said they used television reported that they only asked their students to watch programs during 2-4% of the instructional time available to them in a given week (Cuban, 1986). When the final chapter of the history of instructional television is written, it may be that, "like the slide, film, radio, and teaching machine, television as an instructional medium will fall into general disuse" (Saettler, 1990, p. 388).

This review of the history of educational technology clearly suggests that before one form of educational technology could be developed in an orderly process for maximum efficiency, a new one

appeared on the horizon. Beginning with the instructional slide, "a kind of media bandwagon syndrome has influenced educators' decisions about new media superimposed on the educational system implying that existing educational ills or problems could be cured by the use of this new medium or mode of technology" (Saettler, 1990, pp. 404-405).

The Downfall in History of Past Education Technology Tools

Many of the technological tools that have been created for education are still being used in education today. However, it is the breadth of their current use that is the focus of this section. Certainly, all the elements of educational technology, such as radio, film, and television can serve as tools that teachers have in their classroom repertoires. Nevertheless, with all of the technological tools available to teachers, rarely does one tool dominate a student's time in the school year. Each of the technological education tools in the previous, and the following section, were declared to bring the end of traditional education. However, in the past, such boisterous claims never lived up to their promise the question is why they did not.

It could be argued that teacher training would be a logical decision when a school wishes to introduce a new form of educational technology into the classroom in hopes that it would have a major impact on education. According to Cuban (1986), technology training for instructors to use the new equipment often did not exist or was limited to a few days.

Similarly, the availability of necessary equipment is a critical

factor. An example of the lack of technological equipment can be found in an early survey of almost 2,000 Ohio principals, conducted in 1941 (Woelfel & Tyler, 1945). It produced a list of reasons cited for the lack of classroom radio use. The number one reason why radio was not used in classes was because there was no equipment capable of receiving the radio signals (50%). The next two reasons were "school schedule difficulties (23%), and unsatisfactory radio equipment (19%)" (Woelfel & Tyler, 1945, p. 2).

Dale (1955) collected similar data from across the country in 1954 with regard to the use of film. Although there were variations from state to state in the amount of use Georgia displayed characteristics for the use of film. Georgia teachers, at all levels, only used about one film per month. Thirty-two percent of Georgia teachers reported that they never used a film. To confirm this average Dale also reported on a study of 189 secondary school teachers in Michigan where it was found that they used "the equivalent of a one-reel film about every four weeks" (Dale, 1955, pp. 304-305).

Dirr and Pedone (1978) completed a national study of the amount of instructional television used in classrooms in 1976-1977. They reported that 32% of the sample of 3,700 teachers across the country used instructional television regularly. They further reported that the teachers averaged between thirty and sixty minutes of television per week (Dirr & Pedone, 1978, pp. 9-10).

Another major problem with educational technology that school districts had was equipment maintenance. As with any machinery,

equipment broke down. In most schools that had access to the latest technology, there was a lack of trained staff that knew how to service and repair the equipment. So, when the equipment broke, the teachers were forced to return to the traditional methods of education.

Cuban (1986), Anglin (1991), and Saettler (1990) state that there has been a long history of prophesizing the end of traditional education as a result of new technological innovations, and that corporations and the government, apparently believing in the prophesizing, have invested large amounts of money to develop the various education technologies. This was done first for radio, then for silent film, talking film, closed circuit television, and video libraries. For example, by 1961, over $20 million had been invested in 250 school systems and 50 colleges by the Ford Foundation's Fund for the Advancement of Education (Cuban, 1986). Federal aid also entered the arena of instructional technology with the passage of the National Defense Education Act (NDEA) in 1958. In 1962, President Kennedy secured an appropriation from Congress that authorized the United States Office of Education to invest $32 million in the development of classroom television. By 1971, over $100 million had been spent by both public and private sources (Cuban, 1986).

Each time a technological innovation failed to live up to its promise, however, the advocates of the technology located the failure of their education technology in individuals, that is, the teachers and principals who were reportedly hostile or indifferent to the use of the particular technology. Others pointed to bureaucracies that stifled even the most persistent innovators (Cuban, 1986, pp. 51-52). It is

probably reasonable that a portion of the blame for the failures of the previous education technological innovations can be attributed to teachers. Since teachers were rarely asked how the technological tools might be implemented in a classroom, they might resent the intrusion. Similarly, the lack of teacher training, the lack of equipment and maintenance, and the lack of research are also likely to be partial reasons. However, for most of the innovations, there were other reasons that they failed to be permanently incorporated into a majority of classrooms. These included accessibility to the equipment, inadequate or obsolete equipment, the limited availability of viable signals, awkward scheduling of broadcasts, and amateurish programs. All of these factors have persistently blocked teachers from increasing their usage of radio, film, and television in the classrooms.

The Introduction of Computers Into the Classroom

Once again a new technology brings promises of dramatic and permanent change to the face of traditional education. Computers, and the now the Internet, have many believing that the physical construction of schools will soon be a thing of the past. "There won't be schools in the future…I think the computer will blow up the school. That is, the school defined as something where there are classes, teachers running exams, people structured in groups by age, following a curriculum" (Papert, 1984, p. 38).

Cuban (1986) goes on to say that

In the midst of fiscal retrenchment, parents raise thousands of

> dollars to buy microcomputers for their children's schools. As with film, radio, and instructional television, predictions of computers reshaping how schools will be organized, how teachers will teach, and how students will learn surface repeatedly. (p. 73)

A National Education Association questionnaire of its membership in 1982 reported the infrequent use of computers. Teachers' interest in using computers ran high, according to the survey, "but only six percent said that they used the machines in their classrooms. More than eight percent said that they would like to take computer courses" (Euchner, 1983, p. 5). The early introduction of computers into education began in the 1960s with the introduction of computer-assisted instruction (CAI) (Saettler, 1990, p. 456). In the late 1970s, the first microcomputers became available to the market and by the early 1980s; school systems began to invest heavily in microcomputers for classroom use.

The survey by the National Center of Educational Statistics, Instructional Use of Computers in Public Schools reported that the number of microcomputers available for instructional use tripled over an 18-month period during 1980 and 1982 "to over 100,000 machines" (National Center of Educational Statistics, 1982, pp. 1-2). According to Cuban (1986), by 1984, "Education Week" reported that of the 82,000 schools in the nation, 56,000 or 68% had at least one computer, an average of one machine for every 92 students (Cuban, 1986, p. 78). One year later, in 1985, "Education Week" reported that 92% of all secondary schools had at least one machine available for instruction; for elementary schools, it was 82%" (Cuban, 1986, p. 79). By 1988, the

estimate of the number of computers in schools was as high as three million. However, even though there were growing numbers of computers available to schools, this did not mean that many students were using them. "The average user got to use the computer less than thirty minutes a week" (Saettler, 1990, p. 457).

Cuban (1986) argues that during the late 1980's, a growing concern for slipping American markets (e.g., steel, autos, and high-tech industries)

> drove corporate officials to examine public schools and to join lawmakers in correcting what came to be viewed as a national problem: the inefficiency of United States schools in producing sufficient numbers of engineers, mathematicians, technicians, and workers flexible enough to survive in a rapidly changing workplace. (p. 75)

This focus drove the demand for computers in the classrooms.

However, computer usage in schools in the mid and late 1990s also varied considerably. Some schools only had keyboarding classes while others used computers for every aspect of instruction. Not only were there dramatic differences as to what students learned from district to district, but a 1996 Education Week study also suggests that race might play a part in the differences in what students were taught. For example, in 1996, according to Jerald (1998), Wenglinsky analyzed computer usage in the public schools.

> At the 8th grade level, about 31% of white students used computers mostly for simulations and applications, compared with just 14% of black students. At the same time, more than half of American's black students had teachers who used computers mostly for drill-and-practice, compared with only 30% of white students. (p. 5)

Computers and the Internet also became more frequently used in schools and by teachers in the mid 1990s. Education Week (1998)

reported" that "three out of every four United States public school classrooms have at least one computer designated for instructional use" (Jerald, 1998, p. 1). They also report that eighty-five% of schools are connected to the Internet, with fifty-eight percent having access from at least one classroom, fifty-four percent from a computer lab, and seventy percent having access from a library/media center. (Jerald, 1998). However, they also reported that in 1997, "forty percent of teachers reported having had no formal training using the Internet" (Jerald, 1998, p. 1).

Thus, the amount of time students use computers while they are in school depends on the class. "Two-thirds of teachers say they spend two hours or less per week using the Internet for instruction" (Jerald, 1998, p. 2). In addition, fifty-one percent of the teachers surveyed did not have any homework or in-school project that required students to use computers (Jerald, 1998 p. 1). Only seven percent of the teachers require forty-one percent or more of their homework assignments or in-school projects to be done using a computer (Jerald, 1998).

The Current Use of Computers and the Internet in the Classroom

On February 15, 1996, President Clinton and Vice President Gore announced the Technology Literacy Challenge. This initiative envisioned a 21st century where all students benefit from the use of educational technology (Riley, 2000, p. 3). The United States Department of Education subsequently undertook a strategic review and revision of the national educational technology plan. The outcome of this review was

five national goals for the use of technology in education:

> 1. All students and teachers will have access to information technology in their classrooms, schools, communities, and homes.
> 2. All teachers will use technology effectively to help students achieve high academic standards.
> 3. All teachers will have technology and information literacy skills.
> 4. Research and evaluation will improve the next generation of technology applications for teaching and learning.
> 5. Digital content and networked applications will transform teaching and learning. (p. 3)

According to a nationwide survey of 1,407 teachers in 1998, while many instructors are using the Internet in their classrooms, there are still many instructors who are making only modest use of digital content in their classrooms. Almost all of the teachers who responded to the survey reported that they have access to a computer. Furthermore, most use it for professional activity (Fatemi, 1999, p. 3). "More than half the nation's classrooms are connected to the Web, and schools have an average of one instructional computer for every 5.7 students" (Fatemi, 1999, p. 2). Yet, only slightly more than half (53%) use software to enhance instruction in their classrooms, and just 61% use the Internet for this purpose. Nearly 40% of the teachers say their students do not use classroom computers at all during a typical week.

According to the National Center for Education Statistics (2001), "69.6% of high school students and 70.4% of college grades use computers at school" (Snyder & Hoffman, 2001, p. 484). What is not clear is how often the students use the computers and what they are doing when they are using them. If they are chatting with friends, downloading music at Napster.com, or looking up the latest sports scores, does this count? Library searches, sending E-mail to friends, chatting, looking up sports

scores, using computer-based instruction, shopping, and playing video games are all examples of "using computers". The question is whether it is instructional in nature.

Feenberg (1999), worked on the 1981 design team that created the first online educational program for the School of Management and Strategic Studies at the Western Behavioral Sciences Institute in La Jolla, California. He claims that the current online education systems that many schools use are not operated in the way that early online education innovators had anticipated. Rather than faculty being in the forefront of the movement, politicians, university administrations and computer and telecommunications companies have assumed leadership roles. However, any "proposals for a radical retooling of the university emanating from such sources are practically guaranteed to provoke instant hostility" on the part of faculty (Feenberg, 1999, p. 26). One such example of an externally driven massive infrastructure development to create online distance education is in the state of California. With the sponsorship of Microsoft, Hughes Aircraft, Fujitsu, and MCI, the California Educational Technology Initiative (CETI) was created. The notion was to create a $300 million information infrastructure to support online education in the California State University multi-campus system.

Although Feenberg indicated that his personal experience at the Western Behavioral Sciences Institute was full of intense intellectual and human interaction, and believed the Internet has a massive amount of positive potential in the future of learning, he was concerned that a

large amount of money was going to be spent on infrastructure before efficient research or planning had occurred. Furthermore, there was no budget in the CETI program for evaluation research on online education. Trottler (1989) agrees with Feenberg that there is not enough funding for educational research on online education. He suggests that to improve the quality of research, there should be more longitudinal studies that chart the progress of the same students over several years. "In addition, the studies should focus on fewer technologies, undergo tighter controls, involve larger numbers of subjects and rely less on subjects' self-reporting and more on trained observers" (Trotter, 1989, p. 5).

When Feenberg (1999) asked the chancellor of the California State University what pedagogical model guided CETI, the chancellor responded, "we've got the engineering plan. It's up to you faculty to figure out what to do with it" (Feenberg, 1999, p. 28). Clearly, the planning was not done in advance for the possible pedagogical adjustments that were likely to occur. Harris, DiPaolo, and Goodman (1997) agree that there is a need to develop new pedagogical methods. Results from their project suggest that to raise the quality of the educational experience, significant changes in pedagogy will be necessary.

Feenberg (1999b) is concerned that school administrators believe that online education provides an inexpensive, more efficient alternative to traditional based education. According to Feenberg (1999b), many schools appear to want to have teachers create class materials so that part-time instructors can simply administer a

preplanned class to large numbers of students. Regalbuto (1999) concurs that

> the scenario of hundreds of thousands of students enrolling in a well developed, essentially instructor-free online course does not appear realistic, and efforts to do so will result in wasted time, effort, and expense. With rare exceptions, the successful online courses we have seen feature low student to faculty ratios. (pp. 50-51).

Feenberg (1999) insists that for online education to work effectively, interaction with the professor must continue to be the centerpiece of education, no matter what the medium (Feenberg 1998, p. 1).

According to Chickering and Gamson's (1987) earlier research,

> frequent student-faculty contact in and out of class is the most important factor in student motivation and involvement. Faculty concern helps students get through rough times and keep on working. Knowing a few faculty members well enhances students' intellectual commitment and encourages them to think about their own values and future plans. (p. 1)

The Search for Online Distance Education Research

Given its short history, online distance education does not yet have a well-developed body of literature. The majority of the works available were "how to" resource books. When different combinations of terms were entered in the Amazon search engine, 60 of 63 entries were either "how to books", (how to be a good student, a good teacher, how to create a good online class or a better online class), online class workbooks, or books that talk about online education models. While this may be useful to respective students, it reveals little about the nature and operation of online distance education.

A search of the Social Sciences Citation Index using the same combinations of search terms produced 527 entries. After reviewing each entry, 96 had some discussion concerning research on online education, but only 32 reported on actual research projects, reviews of research, reports, or evaluations with data about online education. Because of the infancy of online teaching and research about online education, this is not surprising. Similar searches of WESCAT, ERIC and website search engines (e.g., Yahoo, Lycos, Go, Excite, Microsoft), yielded another 161 entries. Twenty-four of those addressed online distance learning. Thus, after a substantial review, the number of useful sources regarding online distance learning research was less than 150.

Internet Demographics and Usage Reports

How many people are online, what people do when they are online, and the demographics of the people online are all important issues in any decision to create an online education program. Certainly, Internet demographics change on a daily basis, and no one can be certain what next year's Internet demographics will look like, let alone what they will be ten years from now. For this reason, this section is not meant to offer a prediction of online distance education. Instead, it should provide a snapshot of what the current situation is with regard to Internet use, not online education.

It is reasonable to assume that students who are interested in online courses will have to have a general knowledge of computers and the Internet. Therefore, a possible candidate for online courses will

be an adult active Internet user. What is an active Internet user? According to Ramsey (2000), an active Internet user is someone who regularly accesses the Internet at least one hour per week. One estimate of the adult active Internet user population during the year 2000 was 79.4 million people (Cyber Dialogue, 2000). It is projected that by 2003 more than 107 million United States adults will be active Internet users. Comparative estimates by Jupiter Communications, Cyber Dialogue, The Strategis Group, and Emarketer suggest that the total number of people (of all ages, not just adults) in the United States that are online amounts to 120 million people. This means, according to Lenhart (2000), that half the adults in America do not have Internet access. Moreover, he reports that over half (57%) of those non-users are not currently interested in getting online. This suggests that the booming growth of the Internet in America over the past few years is likely to slow (Lenhart, 2000, p. 1).

Several characteristics are available for the groups that say they are not currently interested in going online. More than half (57%) are women, 43% men. Whites and Blacks fall equally into this camp with 30% from each group reporting they have no desire to go online. About 25% of Hispanics say the same thing (Lenhart, 2000, p. 8). Fully 81% of the people who are not interested are over 50 years of age, and 82% have a high school diploma or less. Finally, 43% of the people in this group earn less than $30,000 (Lenhart, 2000). It is also apparent that there is notably less Internet penetration in rural areas in comparison to other types of communities. A major factor is that a relatively large

proportion of rural residents simply don't use computers. Lenhart (2000) reports that 42% of rural residents do not use computers and additionally that 57% of those in rural areas do not have access to the Internet.

Comparative estimates of the median income of Internet households in 2000 were $52,000 (Forrester Research), $57,000 (E-marketer), $60,3000 (Cyber Dialogue), and $65,5000 (Mediamark Research). Clearly, Internet households had a much higher median income than the overall United States median household income was $42,000 for Whites, $25,330 for Blacks, $28,350 for Hispanics, and $46,640 for Asian Americans (The Kiplinger Washington Editors, 2000, p. 1). Comparative estimates of the population of men and women as the percentage of total adult users in 2000 are 51% men 49% women by Media Metrix, Pew Research, Emarketer, and The Strategis Group, while Jupiter Communications, Nielsen/NetRatings, and Mediamark Research estimate it to be and 50% men 50% women. The United States population consists of 49% males and 51% females, according to the United States Census Bureau (2001). According to Ramsey (2000), the percent of Internet users in 2000 with a college education was 41%. Other comparative estimates of the education level of Internet users with a college degree or higher in 2000 is 38% (Mediamark), 42% (Nielsen/NetRatings), and 36% (Greenfield Online). These are compared to the 22% of the overall United States population (Ramsey, 2000).

Comparative estimates of the race of Internet users vary more widely, making it difficult to judge the overall usage of the Internet

by minorities. Mediamark Research estimates that in 2000 the distribution of Internet users was 86% White, 9% Black, 3% Asian American, and 2% other. Emarketer reports the distribution 76% White, 9% Black, 6% Asian American, 8% Hispanic, and less than 1% Native American. A comparative estimate of households online in the United States by Race in the year 2000 was 44% White, 35% Black, 50% Hispanic, and 74% Asian Americans according to Forester Research (2000) and 45% White, 30% Black, 33% Hispanic, 65% Asian Americans Jupiter Communications (2000). According to Spooner and Rainie (2000), 36% of Blacks with Internet access go online on a typical day, compared to 56% of Whites. In addition, 27% of Blacks with Internet access send or receive E-mail on a typical day, compared to 49% of online Whites who send or receive E-mail on a typical day.

Higher family income seems to be a significant equalizer of racial differences: more than three-quarters (78%) of Whites in households earning over $75,000 are online; 79% of Hispanics in similar economic circumstances are online; and 69% of Blacks in those types of households are online. (Lenhart, 2000). However, if a household earns less than $30,000, than 68% of Whites, 75% of Blacks, and 74% of Hispanics do not have online access at home or even, at a nearby public library or school.

How Much Time Do Citizens of the United States Spend Online and What Do They Do?

According to Ramsey (2000), the average time that users spent in 2000 online was 1.1 hours per day, 7.5 hours per week, or about 30 hours

per month. According to Strategis Group (2000) 86% accessed the Internet from their home, while Mediamark Research (2000) reports that 72% do. What people do online (Forrester Research, 2000) ranges from using E-mail (96% of users), using search engines (78%), using research products or services (47%), daily news (34%), looking at weather forecasts (47%), chatting (23%%), and reading product and entertainment reviews (19%). Another comparative estimate (CBS Market Watch survey 1999) shows that the top four reasons people went online in 1999 was for information research regarding the purchase of a product, communications with others, curiosity, and e-commerce. Yet, another estimate (Cyber Dialogue in 1999) lists entertainment 73%, news 71%, product information 66%, business 61%, travel 61%, health 45%, and investing 30%. The top online content areas that Internet users looked for in 1999 were entertainment (73% of users), news (71% of users), product information (66% of users), business (61% of users), travel (61% of users), health (45% of users), and investing (30% of users) (Cyber Dialogue, 1999). "Although researchers disagree on the exact breakdown of online activities, the supremacy of information gathering as a primary incentive for Internet use is unquestionable. Information gathering and sharing, of any variety, seems to monopolize users' preference" (Ramsey, 2000, p. 115). Other activities that dominate user's time are visiting search engines, newspapers, magazines, and movie sites. "Despite all the hoopla surrounding the web, interpersonal communication (e-mail) drives most people's use of the Internet" (The Information Systems Research, p. 1).

"College students between the ages of 18 and 24 have the highest net penetration rate of any other age group" (Ramsey, 2000, p. 172). Internet usage appears to be an integral part of the college experience primarily because it is a time when access and motivation are at their peak. The population of college students who use the Internet is 11.9 million (Ramsey, 2000) or 93% of the 12.8 million college students (United States Census Bureau, 1998).

College students' regular Internet activities for 1999 according to Greenfield Online (2000) are E-mail (89%), Browsing for topics of interest (67%), Conducting Research (67%), Instant Messaging (54%), Entering Contests/Sweepstakes (50%), Receiving News Updates (41%), downloading software and graphics (38%), Doing Research on Travel Plans (31%), Check Sports News (31%), and Listening to Music (30%).

Internet Connection Technology Demographics

The United States Census Bureau (2000) projects that by the end of 2003 there will be 106.6 million households in the United States. Of those households, 54 million, or just over half, are projected to be active online households (Ramsey, 2000). Some comparative estimates of how many households were online in 2000 are 35 million (E-marketer), 40 million (Forrester Research), 47 million (Strategis Group), and 52 million (Jupiter Communications). Clearly, there is still plenty of potential for growth in the number of United States households connecting to the Internet, but this growth will probably slow (Ramsey, 2000).

Getting online requires that individuals have an access device such as a personal computer, interactive television, or a wireless appliance. Part of the projected increase in Internet use is in the advent of car devices, data-centric devices (palm pilot), mobile appliances, and fixed appliances that can be used to access the Internet from home. Indeed, one projection (Ramsey, 2000) indicates that the percentage of individuals connected to the Internet using a desktop computer will actually decrease from 69.6% in 2000 to 48.4% in 2003. Currently, due to course requirements by schools and the technology that is available, only Internet access via a computer appears to be acceptable for online courses. For this reason, this dissertation will concentrate on Internet access via a computer. By the end of this year (2000), Computer Industry Almanac estimates that the United States will have nearly 580 computers for every 1,000 people, or one computer for every 1.7 persons.

Of the United States households that accessed the Internet via a personal computer in 2000, 43.3 million used a dial up access provider (modem), 3.1 million used a free access provider (modem), and 5.1 million used a broadband (high speed) provider (Jupiter Communications 2000). By 2003, Jupiter Communications projects that only 43.5 million will use a dial up access provider (modem), while 8.8 million will use a free access provider (modem), and 15.3 million will use a broadband provider (high speed).

A potential problem that could exist for potential online student candidates is that of those 43.3 million people who use a dial up access

provider, 38% use America Online (Jupiter, 2000). Students may have compatibility problems if the student accesses online classes using America Online. Even though America Online bought Netscape (a web browser), people who subscribe to American Online can have problems viewing certain web pages. This is because America Online users log on to the service using a proprietary software package. This software still has trouble displaying certain http-based protocols. Schools such as Virginia Tech, Phoenix Online, and Penn State suggest users change their access from American Online to a different Internet service provider if the users are having expected problems.

This chapter reviewed the literature regarding five educational theories of the purpose of education, and the Marxian concepts of ideology, the fetishism of commodities, and hegemony. In addition, it presented a brief discussion of the history of distance learning, technology in the classroom, computers in the classroom, and online education. The next chapter will discuss the methodological approach of the dissertation.

CHAPTER III

METHODS

Introduction

This chapter begins with a detailed explanation of the various methodological processes used in this dissertation. Thus, it presents the results of the comparisons of the online institutions, the rhetorical analysis of the truth claims of the online institutions and along with the Web Based Education Committee.

Claims Making

This dissertation deconstructs the truth claims made by six universities, the testimony before the Web Based Education Committee, and in the research literature on online distance education. According to Spector and Kitsuse (1973), to deconstruct something, one follows an argument's construction path in reverse from its conclusion to the beginning of the argument. One looks to see whether the argument is valid, and whether the conclusions have supportive evidence available. Often in the deconstruction of a truth claim, one also looks for evidence of other influences on the conclusion.

The Elusive Online Institution

This dissertation is an attempt to establish the early truth claims made by online institutions at the dawn of online distance

education. There are hundreds of colleges, universities, and private corporations declaring their intentions to offer online classes, online degrees, and/or establishing additional programs for students wishing to pursue a degree online. As of August of 2000, however, few institutions offered complete degree- granting programs online. Moreover, even fewer institutions are purely online (although some, like Western Governors, are startingto emerge). The majority of programs offering online distance education are tied to traditional institutions of higher education (e.g., Stanford), or have offered some form of distance education in their past (e.g., Phoenix University).

Consequently, criteria were needed to differentiate the "online institutions" from the rest of higher education. The two criteria used are:

1. An institution must have an online distance education program that has been in existence for at least a year, and

2. It must offer online students the ability to complete a degree (Associates, Bachelors, Masters, or PhD) without having to attend traditional classes.

Using these criteria, six online institutions were selected (Stanford University, Penn State University, Virginia Tech University, Phoenix University, Western Governors University, and the United States Open University).

An additional criterion that would have been desirable was for all of the institutions to be nationally accredited. However, only four of the six institutions selected were accredited at the onset of this

project. As of December 2000, Western Governors, and the United States Open University were candidates for accreditation but were not yet fully accredited. Most of the private, corporate-based higher education facilities (e.g., onlinelearning.net, ecollege.com, emind.com, and free-ed.net) were not even candidates for accreditation.

In evaluating the accreditation status of online distance learning in higher education, the credibility of the online institutions is important. "In order to insure a basic level of quality, the practice of accreditation arose in the United States as a means of conducting non-governmental, peer evaluation of educational institutions and programs" (Office of Postsecondary Education, p. 1). Accreditation initially developed because colleges and universities recognized the need to establish standards for admission and the transferability of credit. Accreditation also allows the establishment of academic and professional standards in the United States for institutions of higher education. The Office of Postsecondary Education suggests that if an institution is not accredited, other schools may not accept transferred credits, and its degrees may be perceived as less valuable. Thus, accreditation status implies that the online institutions meet the same educational standards that are met by other, traditional institutions of higher education.

In addition, according to the Western Governors website (2000), candidacy for accreditation is critical for a degree granting university in that its students are eligible for tuition reimbursement from corporations, the military, and government agencies. While the

inclusion of Western Governors and the U.S. Open University is a compromise, their inclusion in this dissertation is in large part due to the lack of private, corporate-based online education institutions currently offering degrees. A late note to include is as of June 2001, when the final revisions of this dissertation were incorporated written, Western Governors University, and the United State Open University became accredited.

Finding online institutions that fit even the two criteria proved rather difficult. For example, at the time when the search for online institutions began for this dissertation, many institutions either did not offer an entire two year or four year degree online (e.g., University College of the Fraser Valley, Duke University, Florida State University, Walden Institute). Some institutions required students to complete a campus visit or other form of residency requirement in order to obtain a degree (e.g., Rochester Institute of Technology). Other institutions (e.g., e-College, Barnes and Noble.com, Walden) only offered courses on a credit/no credit basis or did not have a degree to pursue. Many of the traditional institutions (e.g., University of Michigan, Western Michigan, University of Illinois) were in the process of developing structures for online education, had websites that did not provide enough information, or were still implementing research to discover the most effective way to implement an online education program.

Of the six online institutions that were selected, three were part of the traditional, non-corporate university systems: Penn State,

Virginia Tech, and Stanford. The three other online institutions - Phoenix, Western Governors, and United States Open - are operated by private corporations. All six of the institutions refer to themselves as universities and are either accredited or are candidates for accreditation on that basis.

In order to identify candidates for online institutions, an online review of professional articles, research studies, and available information about the schools was conducted. The argument for such a procedure is that prospective online students will attempt to find information about an online institution via a web-based search engine. They are unlikely to use other, traditional forms of information retrieval such as libraries or printed journals. Therefore, five of the most frequently used search engines (according to emarketer.com, and nielsen-netratings.com) were used to locate potential online institutions. These search engines were Alta Vista, Yahoo, Excite, Lycos, and Hot Bot. Every time an institution was mentioned in a direct search, or was on a website that resulted from a search, the name of that institution was recorded. This listing served as the initial set of online institutions.

To narrow the field and further confirm their legitimacy, each online institution had to have a website that contained information about classes and pricing. There were some institutions offering classes online but they did not have much information about the classes, the cost of taking classes, or other structural and procedural information that students would need in order to make a choice.

Finally, in order to strengthen the choices, the online institution's presence on education information websites (e.g., Chronicle of Higher Education and the NEA) was verified. It was also acceptable if the institution was mentioned in online education research, websites, or Internet -based news websites such as ZDNet.com. All six of the online institution choices were mentioned frequently on online education websites, in research articles, and on Internet-based news websites.

In the next few years, many of the institutions that currently do not meet the criteria will undoubtedly be in full operation. By the end of this decade, therefore, there should be a much larger basis for comparison than is currently available. Although the online institutions of the near future may not reflect the same truth claims, it is still important to document how these early online institutions developed, and what their original truth claims were.

Content Analysis of Online University Truth Claims

Content analysis is a research method that is used to analyze social life by interpreting text and images contained in documents, films, art, and music as well as other cultural products and media. "Content analysis classifies textual material, reducing it to more relevant, manageable bits of data" (Weber, 1990, p. 5). It allows a researcher to make inferences from text. These inferences are about the sender(s) of the message, the message itself, or the audience of the message.

In any content analysis, there are possibilities of bias inherent

in the data. Because documents are produced for purposes other than research, there is no assurance that they are objective, or representative and research offers no such assurance either. "Data from private sources, for example, may be intentionally slanted to present a particular viewpoint. A researcher blindly accepting this data could be walking into a trap. Non-statistical documents may suffer from biased presentation as well" (Monette, Sullivan, & DeJong, 1998, p. 211).

There is also a possibility of bias by the researcher in interpreting the content in the analysis. One way to try to minimize this bias is to be consistent in the methods used to collect the data, and to be consistent when analyzing the data. Since this dissertation is concerned with the presence of truth claims in materials from online institutions, research reports, or testimony, to assist with the consistency of the analysis a coding system was developed. The purpose of the dissertation is to analyze the literature about online education in order to understand the perspectives of the online institutions from their points of view. With the using of a coding system, a search for themes and ideas in a large body of text can be more standardized, and it may help reveal instances that might have otherwise been accidentally overlooked.

In uncovering a consistent set of common truth claims about online institutions, this dissertation is able to declare that these truth claims represent a particular shared perspective one online distance education at the time of the writing of this dissertation. It also reveals the perceived capability of the Internet to deliver online

distance education.

Creating and Testing a Coding Scheme

According to Weber (1990), the first task of creating a coding scheme is to define the recording units. In this dissertation, any declaration of what an "online institution" is (or could be) or what an "online education" is (or could be) was recorded as a potential unit. In each recording unit, the investigator tries to separate the various themes that may be included in the statement. A theme is defined as a unit of text "having no more than one each of the following elements: (1) the perceiver, (2) the perceived agent of action (3) the action (4) the target of the action" (Holsti, 1963, p. 136). A simple example would be the sentence; "John believes that the President of the United States hates Communists." In this case, John is the perceiver, the perceived agent of action is the President, the action is hates, and Communists are the targets of the action.

According to Weber (1990), once the recording units have been examined, the researcher then must define the themes into distinct categories. The researcher also must decide whether the categories are to be mutually exclusive. "The best test of the clarity of category definitions in a coding scheme is to test the coding scheme with a small sample of the text that has nothing to do with what is being studied. Testing not only reveals ambiguities in the rules but also often leads to insights suggesting revisions of the classification scheme" (Weber, 1990, p. 23).

Diction 5.0

Diction 5.0 is a text analysis program distributed by Scolari Software (http://www.scolari.com). Diction 5.0 is a revised version of an earlier program described in Hart's "Systematic Analysis of Political Discourse: The Development of Diction" (1985). The newer version of the program is described in detail in the book, Campaign Talk: Why Elections Are Good for Us, (Hart, 2000). According to Scolari's website, Diction has also been used by Raymond C. Maietta of Indiana University, Allison Regan, University of Hawaii, and Tom Benson, Penn State University.

According to Hart (2000), diction is a computer program that uses a series of dictionaries to search a passage of text and construct five master variables: Activity, Optimism, Certainty, Realism, and Commonality. The term dictionary in this instance means a list of words that are associated with one of the variables from Diction. There are also thirty-five sub features that are used to calculate results. Output of the program includes raw totals, percentages, and standardized scores. Diction also reports normative data for each of is forty scores based on a 20,000 item sample of contemporary discourse.

The program Diction 5.0 has the option of an investigator creating custom dictionaries by preparing word lists of up to 200 words in length which Diction will then use in its search routines. A custom dictionary can assist an investigator in identifying separate sets of themes to be found in a body of text. These allow a researcher to divide themes into separate sections so that it is easier to keep track of the occurrences of a particular theme. With separate codes, it is easier for a

researcher to view different occurrences of different themes in a body of text. A researcher can then view the sentences by theme, to look where the particular word(s) occurred (to check whether the instance of the word is relevant to the context of the theme of the code). For example, if a researcher were looking for the number of times blacks are mentioned in a body of literature, some specific words to be considered in a coding system would be Black, African American, minority, etc. However, if a piece of text includes the term "black" but refers to the color of a leather jacket, then that specific instance of the term black is not relevant to the theme.

How Diction 5.0 Works

Diction 5.0 constructs five master variables, which are based on the thirty-one individual dictionaries, and five calculated variables. According to Hart (2000), no individual word is duplicated in the thirty-one dictionaries, thereby permitting a comprehensive examination of a given passage. Diction allows a user to plow through batches of texts quickly in order to produce output. Because the dictionaries are general ones, the program is not discipline or subject matter dependent. Each Diction dictionary includes words that are associated with writing that is rhetorical in nature. The Diction program asserts that these five master variables best capture the major tonal features of a text. Diction also presents normative data for these five variables, which lets the user locate a given passage to double check and make sure it conforms to the tonal themes the program suggests.

Master variables are calculated by translating raw dictionary totals (the number of times rhetorical words are found in a given document, in relation to the occurrence of other words in the document) into Z-scores, adding and subtracting them in the appropriate fashion. A constant is added to eliminate negative numbers. For example, if a master variable has a Z-score above 1, then the document contains a high level of rhetorical elements based on that variable. If a master variable has a Z-score below one then the document contains a low level of rhetorical elements based on that variable. The complete definitions of all of the component scores come from the Diction Users Manual or can be found in Campaign Talk: Why Elections Are Good for Us (2000). The basic definitions of the five variables are as follows:

1. Certainty: Language indicating resoluteness, inflexibility, completeness, and a tendency to speak ex cathedra.

2. Optimism: Language endorsing some person, group, concept, or event or highlighting their positive entailments.

3. Realism: Language describing tangible, immediate, recognizable matters that affect people's everyday lives.

4. Activity: Language featuring movement, change, the implementation of ideas, and the avoidance of inertia.

5. Commonality: Language that highlights the agreed-upon values of a group and rejects idiosyncratic modes of engagement.

When, Diction was applied to the online institution materials (and, later, the testimonies before the Web Based Education Commission), it produced measures of how the various online distance education

rationales were presented. These measures were calculated from the proportions of how often, and how strongly the master variables were represented in the documents. In the analysis, if a pattern of strong support either for or against online distance learning occurred, it was reported. In order to be considered important, however, a majority of the universities (4 of 6) must display similar tendencies (high z-score, low z-score) in a variable in at least half of their documents.

Problems With Computer Coding

Problems can arise because a computer program was used to assist in the textual analysis and the identification of common truth claims. Therefore, every instance of a recorded code word, phrase, or idea had to be checked to make sure they were semantically consistent with the coding system. If the appearance of a word had nothing to do with a university truth claim, then the instance was not recorded.

The University Truth Claims

For this dissertation, it was important to first discover whether there was a set of common truth claims among the six online institutions. Once that was established, the plan was to investigate whether those truth claims were consistent with the available research literature and with the testimony before the Web Based Education Course. Studying the truth claims of online institutions is important because the implementation of online education potentially could have massive impacts on the access, delivery, quality, and purpose of higher

education. Since online education is so new, it is important to document what it is, and what it is perceived to be at the outset, or at least, close to it. If educational institutions, government agencies, and private corporations are willing to invest billions of dollars in a phenomenon, understanding what it is and what it means, as perceived by those who are disseminating official information about it, is important.

After the six online institutions were selected, their websites were reviewed for any information about their online education program, or about online distance education. In addition, each university website had a search engine. Therefore, after looking at all of the web pages that had links to them, the same combinations of search words that were used earlier to find the universities were entered in the university search engines in order to find any other information about online distance education.

The numbers of documents, research studies, and articles about the institution and online education varied across the six online institutions. Stanford had the most information available. Penn State and Phoenix did not have as much information as Stanford, but both did have substantial amounts of information about online higher education. Virginia Tech and Western Governors had less information on its websites, and United States Open University had the least information on its website. For example, Stanford's website at the time of this dissertation had seventy-two separate web pages of lengths between a half page and four pages per section. These pages included topics ranging from what courses were available, and what online education was,

to what software was necessary to take courses, and other technical information concerning online classes, computers, and the Internet. The Stanford website also had pages dedicated to discussing how to get help, frequently asked questions, and feedback pages. This is not counting the web pages for individual classes, which required a password to access. There were also five research documents available for downloading, which talked about online research that members of the Stanford faculty had completed. The Stanford website also included fourteen articles dealing with different topics from professional education using online resources, to guided historical tours of the University.

In contrast, the United States Open University had forty-one separate web pages about the University, the programs and classes available, and online education. It had four articles dealing with testimonies of students, their credential status, and a letter from the President of the University, and the history of the university. The United States Open University presented no research about online education or research about their university available. It seemed that the United States Open University website was structured more around the sales pitch for online education than Stanford's website, which seemed more like an information resource guide.

After all of the web pages were collected, the search for truth claims began. Any text that contained an attempt to define, describe, or declare what online distance education is, was, or could be, was recorded. Only web pages that made a truth claim were included in the

analysis by Diction. Similarly, comparisons to other distance learning programs, or traditional university programs were also recorded. Thus, lists of truth claims were accumulated for each online institution (For a complete list of all truth claims, by institution, please refer to Appendix A.). Since each university had its own set of truth claims, the lists were compared with one another in order to identify common patterns among the truth claims. In order for a truth claim to be considered for the final list, it had to appear in the lists of truth claims for at least three of the six universities.

The total number of truth claims are as follows: Penn State 24; Stanford 21; United States Open University 19; Phoenix Online 17; Western Governors 15; and Virginia Tech 11. After comparing all the university truth claims, thirteen common truth claims were uncovered. Those thirteen truth claims follow in bold, along with their associated rationales:

1. Higher education is too expensive. Online distance learning will make it more affordable.

2. Education has become and will continue to become increasingly important for occupational and personal success. Students need more education and higher levels of education (more credentials). Thus, enrollment is changing and an efficient way to address the rise in student enrollment is to create online higher education facilities.

3. Students need and/or will receive access to global job markets. Online education will help students prepare for global markets.

4. The number of traditional jobs will continue to decline. The new highly technical and specialized jobs that are now being created will demand greater preparation and sophistication. The latest training techniques and learning styles can be put online almost immediately after a new training technique or learning style is developed.

5. Online education will increase minority percentages in higher education. Online education will increase the access that minorities will have to higher education. Minority students will have anonymity so they can learn without the prejudices, and they can take classes that interest them more. More classes that are specified for minorities can be taken by minorities.

6. Online education is emancipatory. Online education will set the student free from the restrictions of traditional education. There will be more interaction among students and teachers, especially students who do not normally interact. It will change the way we teach and learn. Online education is not based on traditional methods.

7. The quality of online higher education is as good or better than traditional forms of education. Technology is changing the world in which we live, and online education answers the need for technology in the schools. Students learn as well or better when they use technology in their education.

8. Online education can reach students in remote locations. There is a need for higher education in remote areas. With online education, an individual can take classes offered anywhere in the world and at any time.

9. Online institutions offer a more flexible class schedule. Schools need to be more flexible and offer more choices for people with busy schedules. There is a need for easily accessible education programs for employees who need to keep up with the latest training and job skills so that they can remain competitive.

10. Online learning can be self-paced. Students can complete their classes at their own pace. For students that have busy schedules, classes can be taken and completed when the student has extra time. For students that have the ability to spend more time on their classes, they are able to complete their degrees more quickly.

11. Some online institutions allow individuals to earn credits and eventually a degree based on prior competency. With competency tests, an online student can receive certification in a particular area. Why should a student take classes if they already possess the skill or have prior training?

12. Unlike most higher education institutions, some online institutions assign an individual mentor to each student. This mentor will work closely with the student throughout the student's progress. Online higher education institutions offer a more personal education.

13. Students should not have to take time off work to take classes. There is also a larger elderly student base than at any other time in history. Online education will be able to help many non-traditional students better than traditional education.

For many of these truth claims provided by the online institutions, no evidence or rationale was given in order to support the

claim. In the instances where there was no support, the truth claim was typically presented as if it were a matter of common knowledge. Perhaps, like any advertisement, the attempt of the websites was to make prospective students want to take classes at that online institution. Stanford, Penn State, and Virginia Tech did make, available research they conducted for people to read that would support some of their claims. However, they seldom referred to their research when making truth claims or when they delivered their sales pitches. Figure 1 below is a chart presenting the final list of common truth claims and the institutions with which they were associated.

Truth Claim Number	Stanford	Virginia Tech	Penn State	Traditional University Sub Total	U.S. Open	Western Governors	Phoenix	Corporate University Sub Total	Total
1	X	X	X	3	X	X	X	3	6
2	X		X	2		X	X	2	4
3	X	X	X	3	X	X	X	3	6
4	X		X	2	X		X	2	4
5	X		X	2	X			1	3
6	X		X	2	X			1	3
7	X	X	X	3	X	X	X	3	6
8	X	X	X	3	X	X	X	3	6
9	X	X	X	3	X	X	X	3	6
10	X	X	X	3	X	X	X	3	6
11				0	X	X	X	3	3
12				0	X	X	X	3	3
13	X	X	X	3	X	X	X	3	6

Figure 1. The Thirteen Common University Truth Claims.

The Differences Between the Traditional and the For-Profit Online Institutions

As revealed by Figure 1, there are some obvious differences between the traditional universities (i.e., Stanford, Penn State, Virginia Tech) and the for-profit institutions (i.e., United States Open, Western Governors, and Phoenix Online). None of the traditional universities offered the student the opportunity to earn credit towards a degree via life experiences (truth claim #11), nor made the claim that online education was more personal (truth claim #12). All of the traditional universities discussed the issue of life experience for credit, but none of them declared that it was possible through their online program to receive credit for life experiences. As expected, online education being more personal than traditional education was a claim made only by the for-profit universities.

There were several other differences between the traditional and for-profit universities that were not obvious from the truth claims themselves. The for-profit universities seemed to be significantly less expensive than the traditional universities. There was more flexibility in the schedule, and the courses offered seemed to fit precisely to the degree offered. The traditional university's degree offerings tended to mirror the traditional education degree offerings, mixing general education classes with classes specifically geared to a particular degree. The for-profit universities seemed to be easier for a student to be accepted into a program and to enroll in classes. The procedures were simple and more flexible than the traditional universities.

Discussions about online education research only occurred among the traditional universities. Although all of the for-profit universities claimed that research supported whatever claim they made, rarely was the research cited. Except for Phoenix University, none of the for-profit universities claimed they had done their own research about online education. Moreover, none of the for-profit universities (including Phoenix University Online), provided any research on their websites to support their claims. In a few cases, there were links to other websites that did contain research, but none of the links were to original research done by the universities themselves. In contrast, all of the traditional universities claimed to being involved in an ongoing research agenda about online education, and provided the results of that research on their websites.

The for-profit universities seemed to be more oriented to non-traditional students, those who were working and looking to upgrade their job, or job status. For example, they all mentioned how they worked with corporations to help train employees, and provided personal testimonies of students who gained new jobs with their degrees.

There was one other difference noticed between the two sets of universities. It seemed that the for-profit universities expressed the goal that all of their class sizes were going to be small (under twenty students, and in many of the classes under ten). Although there was some discussion in the traditional university research about the need for small online class sizes in their websites small class size was not used as a selling point, and small class size was not emphasized as it

was among the for-profit schools.

The Truth Claim Coding System

In order to cross check to make sure that at least three universities discussed one of the unique truth claims (and the final thirteen that were considered common), while at the same time analyzing the text for rhetorical content, custom dictionaries were created for Diction 5.0. Thus, after developing an initial list of truth claims that were common among at least three schools, Diction 5.0 was used to help affirm that the list was accurate. The following are the key words that were used to check on the possible occurrence of a truth claim in a body of text. Since many of these words may have been used in different contexts, each instance of a word was also checked by hand to make sure it was used in the appropriate and desired context.

1. [costly, money, pricey, value, cheaper, lower, cost, cheaper, less-expensive, affordable, low-cost, high, priced, steep, over-priced];

2. [credentials, degrees, education, school, higher, access];

3. [global, world, worldwide, world-wide, international, planet, globe, earth, transnational];

4. [specialized, jobs, training, techniques, specialization, higher, relevance, updated, technology, 21st, century, 20th, future, information-age, Internet, latest, industry, information, practices, retraining];

5. [black, Hispanic, Mexican, Puerto, Rican, Indian, native, African, minority, marginal, colored, Latino, inequality, women, female,

gender, Asian, Pacific Rim, Eastern European, disenfranchised]

6. [emancipate, freeing, release, liberate, free, unshackle, emancipation, release, releasing, change, emancipatory, critical-pedagogy, liberated, new-traditional, untraditional, liberated]

7. [good-quality, high-quality, equal, equivalent, same, par, comparable, better, superior, improved, change, advanced, difference, different, similar];

8. [remote, long, distance, distant, isolated, inaccessible, far-off, secluded, sticks, out-of-the-way, faraway, reach, anywhere];

9. [flexibility, schedule, choice, flexible, accommodating, alternative, options]l

10. [self-paced, convenience, own-time, pace, spare, faster, swiftness, speed, tempo, busy, schedule, commuting, wasted, self-starting, self-control];

11. [Prior, competency, ability, aptitude, proficiency, skill, experience, expertise, community-based, service];

12. [mentor, advisor, assistant, advisor, counselor, guide, tutor];

13. [older, time-off, elderly, adult, grown, non-traditional, life-learner, long in-service].

Analysis of the Rhetorical Content of the Online Institutions Truth Claims

Given the nature of the truth claims being presented, it is important to be able to evaluate whether the institutions used factual, or rhetorical based discussions when talking about online distance

education. One way to check for this is to look for support of the truth claims from other information sources. Another way is to use Diction to analyze the truth claims from the six institutions to measure the levels of rhetorical language used. A piece of information was considered highly rhetorical if claims were made that contained discourse concerned primarily with style or emotional affect instead of providing some kind of evidence in support of the claims. In order to facilitate the analysis of the information for evidence of rhetorical writing, Diction was used to help establish an overall emotional feeling for each given body of text. Diction is a valuable tool used to assist in the accounting and recording of instances where there is a presence of rhetorical language in a document.

Among the six universities, the following consistencies were detected by Diction: Variety, Complexity, Activity, and Realism. There were high levels of Variety and Complexity, and low levels of Activity and Realism. Variety falls under the master variable, Certainty. A high Certainty score occurs when the words used in a document use language indicating resoluteness, inflexibility, completeness, and a tendency to speak ex cathedra. The Variety measure conforms to Wendell Johnson's (1951) Type-Token Ratio, which divides the number of different words in a passage by total words in the passage. A high score indicates a speaker's avoidance of overstatement and a preference for precise, molecular statements. One way to interpret a high score in this context is that the online institutions project a consensus of expertise and their inflexible position to view others as having greater

authority on the subject of education. In defense, these are education institutions and should be confident in discussing issues of education.

Complexity falls under the master variable, Realism, which reflects language describing tangible, immediate, recognizable matters that affect people's everyday lives. The Complexity score is a simple measure of the average number of characters-per-word in a given input file. Diction's complexity score borrows Rudolph Flesch's (1951) notion that convoluted phrasings makes a text's ideas abstract and its implications unclear. A high Complexity score, therefore, indicates that the material is overly abstract and not clear as to the purpose of online education. Another possible interpretation is that online universities are trying to impress upon the potential student that their online schools are just as sophisticated as their traditional counterparts.

Activity is a master variable that looks at language featuring movement, change, the implementation of ideas, and the avoidance of inertia. A low Activity score could be interpreted to mean that there is little change in the status of higher education institutions with the implementation of online education. It also could be interpreted that online education is not an implementation of new ideas but instead is part of a continuation of traditional educational process. This is not necessarily a negative interpretation. In short, it might be said that online education is a natural continuation of the progress and evolution of the educational system.

Realism is also a master variable, and it reflects language

describing tangible, immediate, recognizable matters that affect people's everyday lives. A low Realism score could be interpreted to mean that the online institutions are using language that is highly intangible, and does not discuss matters that affect people's everyday lives. Another way to explain this score is that the material contains language that does not provide clear definitions of what online distance education is, but acknowledges that it does exist.

The calculated and master variable scores of each online institution are found in Appendix B. In a final assessment of what the Diction scores may indicate, there does seem to be an indication that there is a substantial amount of rhetorical language in the online institution material. The language used in the six online institutions web material indicates that the universities present themselves as experts, declaring that online education is a complex, natural, new, and improved evolution of higher education. This final assessment seems to be aligned with the university truth claims.

Selecting Research on Online Distance Education

Early in the investigation for information about online education, it became clear that there was little comprehensive research concerning online distance education. Most of the early, information about online distance education was in the form of polarized opinions or political debates that argued about online education. Most of the work was highly reified, lacked supporting research or comparative analysis, and focused primarily on the beliefs of the particular author (Phipps & Merisotis,

1999). While voices and perspectives of individuals are important to consider, more systematic and rigorous research is necessary. However, according to what was found when reviewing research for this dissertation, the bulk of the early research is based on studies of individual courses that usually involved few cases and small numbers of students (Kerrey & Isakson, 2001; Phipps & Merisotis, 1999).

When attempting to locate articles about "online distance education" via the Western Michigan University library search engine (WESCAT), only ten entries were produced. When subsequent searches were done using combinations of words - online, distance, learning, Internet-based, education, college, school, and university - a much longer list of entries was revealed. However, most of the results were about television or mail-based correspondence distance education. At that point, only twenty appropriate entries had been located.

Even using the top five online search engines (Alta Vista, Yahoo, Excite, Lycos, and Hot Bot), yielded little new information. The same combinations of search terms produced more entries (about 200), but when they were further investigated, fewer than a dozen contained any useable information about online distance education. The other entries were about other forms of distance education, or referred to corporate websites that offered Internet Technology consulting, newsgroup postings, or online websites for classes.

In an effort to locate more published research, higher education websites (e.g., the National Education Association, the United States Department of Education, The College Board, The Department of Education

Statistics, The United States Distance Learning Association and the Chronicle of Higher Education) were also used to help locate additional studies. In addition, the research that was used or cited by the six online institutions was included in the analysis. As their programs developed, Stanford, Virginia Tech, and Penn State had conducted some online class-based research. The other online institutions did not refer to much research on online higher education. For example, when Western Governors or United States Open did mention research, they referred to other independent research studies.

The website of the Web-based Education Commission was also consulted, along with the research that was quoted in any of the testimony, or listed in the bibliographies. Surprisingly, this was not as helpful as one might think, considering that this was a commission created to advise the federal government on the position it should take with respect to online distance education. Out of 209 testimonies, only twenty-two mentioned research. Of those twenty-two, only eight studies were unique.

In conclusion, most of the citations that were located were ultimately obtained from the bibliographies or web links of other online education research materials. There was a limited amount of original published research available, and most of it was repeatedly cited. Indeed, one positive assurance about the comprehensiveness of the materials used in this dissertation was that the same studies were consistently cited in the bibliographies of the materials that were found.

Results of the Search for Online Education Research

Among all the research materials reviewed that focused on online distance education, 254 publications included some form of either qualitative or quantitative methodology used to evaluate online higher education, or the process of online higher education. However, out of the 254 original pieces of research, only 117 were useable. The rest did not adhere to accepted methodological specifications, (Sugar & Bonk, 1998; Cole, 1996; Garner & Gillingham, 1996; Schwartz, 1990). Many focused on the inevitable cultural adaptation of online education (Bonk & King, 1998; Garner & Gillingham, 1996; Lai, 1996; Cummings & Sayers, 1995; Harasim, Hiltz, Teles & Turoff, 1995; Harasim, 1993; Handa, 1990). Some did not fully reveal the methodology used to obtain their results, and did not provide any way for the reader to determine the methodology used (Bender, 2000; Grubb & Hines, 2000; Baker, Herman, & Gearhart, 1996). Many others, that appeared to be research, ended up being opinion, personal experience, and or simply discussion about online education (Kent & McNergney, 1999; Knapp & Glenn, 1996; Sandholtz, Ringstaff, 1996; Reddy, 1993; Perelman 1992).

For this dissertation, therefore materials used for analysis refer to works that use consistent practices and techniques used to gather, process, manipulate, and interpret information that can subsequently be used to test ideas and theories. In all cases, the work should use a declared methodology that is clearly explained so that other researchers could try to replicate the results.

The Web Based Education Commission

The Web Based Education Commission was established by the U.S. Congress and President Clinton to explore the potential of the Internet and other technology-mediated learning strategies, and to identify the obstacles that inhibit students from realizing that potential. All of the documents on the website that describe the Web Based Education Commission, what studies it reviewed, and how it defined online education were collected and analyzed. According to the Web Based Education Commission website (http://www.hpcnet.org), the reason why the commission was established was to explore the promise of the Internet and other technology-mediated learning strategies and to identify the obstacles that inhibit students from realizing that promise. In the long term, the Commission is working to develop a comprehensive policy "road map" to assist policymakers, key education stakeholders, and the private sector in making decisions about web-based education. It also will establish a strong presence on the World Wide Web to serve as a center for discussion and debate over policies that affect web-based learning.

The committee itself was chosen by then President Clinton, the Secretary of Education, and majority and minority leadership of the House and Senate. The Commission invited responses to its questions from what the members considered the foremost experts in education, policy officials, and the public. The majority of these experts came from corporations that stood to make considerably profits from a development of online education. The Commission website offers no

detail as to how these people were invited or why they were considered experts. The data that the Commission members used in order to make their final recommendations was collected through public hearings, site visits, stakeholder meetings and discussion, and policy analysis. The Commission also collected information in the form of e-testimony which, according to the website, was open to anyone who wished to give the commission a testimony about web based education. However, in the official press releases found on the Commission website there was no mention of allowing the public to offer testimony to the Commission. According to the Commission website's own traffic volume numbers, as of October 2000, less than 1,000 visits to the website had occurred, and as of February 2001, less than 2,000 visits the website had occurred. These visits could also have been from only a few individuals that frequently visited the site. It is possible that few people were aware of the existence of the Commission.

The three categories were determined by analyzing the content of the testimony. If the testimony expressed no reservations about the implementation of online distance education, it was considered clearly positive regarding online distance education. In addition, if there were reservations expressed in the testimony, but it was also expressed by the author of the testimony that the problems could and would easily be addressed, then the testimony was also included in the clearly positive category.

If the testimony expressed reservations about the implementation of online distance education, and the author of the testimony was not

sure whether these problems could or would be addressed, the testimony was placed in the undecided. Similarly, if the author of the testimony was not sure whether online education had more positive than negative elements, or if the author did not think online education was different from traditional education, then the testimony was also placed in the undecided category. The underlying message in this category is that online education either has the potential to be positive, or that online education will produce results that are no different than what would be achieved by traditional education.

Finally, if the testimony was completely against online distance education, then the testimony was considered clearly negative. If the author of the testimony expressed the opinion that online education had potential but had problems that would or could not be addressed (there would be more negative than positive aspects to online education), then the testimony was also considered to fall in the negative category. Each individual or group that offered a report, testimony, or experience was asked to present the information by addressing as many of thirteen policy issues as they could. (See Appendix D for a list and description of those issues). There were 209 separate testimonies before the commission. An overwhelming proportion of the testimonies 181 (86.6%) were positive, while 10 (4.8%) were negative, and 18 (8.6%) were undecided.

The plan is to compare the testimonies with the truth claims of the universities, to see if the testimonies are consistent or address the university truth claims, it would also be important if testimony

supported or contradicted any of the truth claims. Thus, the 10 testimonies against, the 18 undecided, and the positive testimonies were reviewed in the same way the truth claims were reviewed to determine if the testimonies provided support for the university truth claims.

Because of the large number of positive testimonies, a manageable and comparable size sample was needed for analyzing these testimonies for common truth claims and for the rhetorical nature of the language used. Therefore, three random samples of 20 positive testimonies were taken and compared to check if they were representative of the positive testimonies. All three samples produced similar results both with respect to the truth claims and the rhetorical content of the materials.

The Rhetorical Nature of the Web Based Education Testimonies

As before with respect to the truth claims, the testimonies were analyzed using Diction. The calculated and master variable scores of each testimony in the sample are found in Appendix B. The Diction results reflect the fact that the overwhelming majority of the testimony was highly rhetorical in nature. Of the testimony in the clearly positive category, there were high levels of Variety and Complexity and low levels of Certainty and Realism. For the undecided testimony, there were high levels of Variety and Complexity, and low levels of Activity, Certainty, and Realism. Finally, the testimony that was in the clearly negative category displayed high levels of Variety and Complexity, and low levels of Certainty and Realism. Thus, the nature and degree of rhetorical language was comparable across the types of testimony.

Most of the testimonies project the idea that there is consensus regarding their expertise or what they have to say about the subject. It also indicates their inflexible positions to view other perspectives as valid. (It should be noted, in defense of the testimonies, that many of the individuals and corporations that offered testimony did so by request of the Web Based Education Commission). For the same reason the material is overly abstract and not clear as to what the purpose of online education is. Another interpretation is that those who testified were trying to impress upon the committee that their perspectives are important valid, and informed.

Similarly, the language used in all the testimony reflects the position that online education is not an implementation of new ideas but instead a continuation of previous education movements. Those who testified did not seem sure what the definition of online learning is, or if online education means the same thing for everyone using the term. Therefore, the majority of the testimonies delivered tentative discussions, and did not project confidence in their beliefs about online distance education. Finally, the language used in the testimonies was highly intangible, and did not provide clear definitions of what online distance learning is or what it will be in the future. A low realism score could also indicate that the person giving the testimony are aware that an online school may not work for everyone, or that there are those who would resist the implementation of online learning.

In general, the Diction scores indicate that there does seem to be

a substantial amount of rhetorical language used in the testimonies before the Commission. The language used indicates that those who testified were not speaking in a concise manner, which may indicate their unwillingness to make concrete commitments. It may also indicate that there is still a good deal of uncertainly regarding the nature of online education, the future of online education, or the benefits of online education for prospective students.

Summary

In this chapter, a summary of the methodological processes used in this dissertation to analyze the reliability of the various higher education institution truth claims, the testimony before the Web Based Education Committee, and the truth claims from the research literature. A content analysis of the various sources of information was done in order to look for similar truth claims, themes, or declared evidence to support or refute the online higher education institution's truth claims.

CHAPTER IV

RESULTS

Introduction

In this chapter, the thirteen truth claims are first presented. They are then compared to the results of the online education research, the Web Based Education Commission testimonies, and comparative historical data of other forms of distance and technology based education. For each truth claim, there is a discussion of the research pertaining to the particular claim. In addition, if the truth claim was addressed by the majority of the testimonies given to the Web Based Education Commission, these results are reported, followed by the conclusions from the Commission report that pertain to the truth claim.

Even though the majority of the testimonies were supportive of online education, summaries of the negative and mixed testimonies are also provided where appropriate. These testimonies bring a different perspective, and address online education using some themes that are not addressed by the positive testimonies. In the discussion of testimonies given to the Web Based Education Commission, certain testimony identifications will be given. In order to access the individual testimonies in their entirety, the reader should go to the Web Based Education Commission website at (http://www.hpcnet.org/wbec/testimony) or refer to the bibliography under WEC. The reason individual website addresses are not given is because at the time of the writing of this

dissertation, the Web Based Education Commission website went through several changes and the addresses changed each time the website was modified.

The First Truth Claim: Online Distance Education Will Make Higher Education More Affordable

Introduction

The first truth claim made by the online institutions is that higher education is too expensive, and that online distance education will make it more affordable. Along with this truth claim is the notion that there is a growing pressure to lower the cost of higher education (Stanford Website). Examples of online institution claims include the Western Governor's website which states that online classes have cheaper costs than traditional classes" (http://www.wgu.edu), and Stanford's website which states "there is now increasing pressure to re-engineer the educational process to be significantly more cost effective" (http://stanford-online.stanford.edu/).

The First Truth Claim: Online Distance Education Research

Part of the promise of Internet technology is "to deliver instruction at reduced cost. But to do so it will have to break with history" (Gladieux & Swail, 1999, p. 15). According to Gladieux and Swail (1999), most educational technology introduced in the last 100 years has supplemented rather than supplanted traditional classroom instruction. Thus, the addition of technology in the past has routinely

added to the cost of education, not reduced it. With respect to current technology, none of the research makes it clear how much online distance education currently costs at a particular institution, or how much it is going to cost once it has been fully implemented.

According to Morgan (1999),

> Administrators believe they can assist with cutting cost by placing adjuncts as instructors for online courses. People also argue that those who are retired will work for considerably less. Administration believes this is a way to reduce costs, often offending faculty and students who do not see adjuncts as providing the same quality instruction. (p. 37)

A number of authors (Regalbuto, 1999; Feenberg, 1999; Merisotis, 1999; Phipps & Merisotis, 1999; Downes, 1998; DiPaolo & Goodman, 1997), all offer a different conclusion from Morgan's, arguing that the empirical data that does exist shows that online courses are more labor intensive than traditional classroom courses because of the use of technology. To contradict his own conclusions, Morgan (1999) states that online classes at Marshall "reported a 52.6% increase in the time required to teach online courses" (Morgan, 1999, p. 56). However, the possible cost increase can be handled by hiring cheaper adjunct faculty to administer the online classes.

If online classes are more labor intensive, can and will adjunct or retired faculty handle the workload and deliver quality classes? Perhaps, if higher education class sizes remain small. However, according to Morgan's (1999) research, "additional students can be taught to the same standard for the same level of investment" (p. 35), and so online classes can have large class sizes and still maintain high quality. If class sizes need to be small in order for online classes to

be successful and rated as equal in quality to traditional education, they may not be more cost effective than traditional classes and may be more expensive. In Morgan's research summary on the cost of online education classes, an absolute answer is not provided. When he addresses whether the cost of online classes are worth it for the price, his response is "it depends. In every case, institutions must consider all possible costs" (Morgan, 1999, p. 63).

Regalbuto (1999), Feenberg (1999), Merisotis (1999), Phipps and Merisotis (1999), Downes (1998), DiPaolo, and Goodman (1997) all argue that online schools need to keep class sizes small, have synchronous classes, and have professors who spend the extra time to interact with all of the students. If online institutions follow these suggestions then the cost of online education will be more than traditional delivery methods. If adjunct faculty teach asynchronous courses with large enrollments, and engage in limited student teacher interaction, then online classes may well cost less.

The cost of current online classes does not necessarily help the argument that online classes will mean a more affordable education for students. Even if online courses are less expensive for online institutions to offer, there are indications that most postsecondary institutions do not pass on the savings of distance education programs. "About 77% of 2-year and 4-year postsecondary education institutions offering distance education courses in 1997-1998 charged the same tuition for distance education courses as for comparable on-campus courses" (Lewis, Snow, Farris, & Levin, 1999, p. 43).

Of the six online institutions reviewed in this dissertation, the online classes at Penn State, and Stanford, cost more than traditional classes. The online classes have higher costs per credit hour because the schools charge the same tuition (including out-of-state tuition if the student lives out-of-state), plus extra online course fees. At Virginia Tech, online students do not have to pay many of the student fees, as on campus students. However, the instate tuition for on campus undergraduate students is $116.50 per credit hour, while for online students it is $263 per credit (http://www.iddl.vt.edu). The University of Phoenix Online charges $390 per credit hour with $183 in fees (one time only). United States Open University claims to be cheaper than traditional higher education schools because they do not charge fees for health services, athletics, parking, public safety, books, or technology. However, they do charge $210 per credit hour. Western Governors University also claims to be cheaper than traditional education. The cost for a bachelor's degree is listed as $3,650. However, there is a $100 application fee and a courseware fee which averages between $2,000-$3000. Moreover, in order to get a bachelor's degree at WGU, a student must first have an associates degree from WGU, which costs an additional $3,250 in tuition and another $2,000-$3,000 for in course materials. This means the total coast for the degree will average between $11,000 and $14,000.

Western Governors University seems to be the only online institution of the six that is less expensive than traditional schools. For example, when compared to the cost of attending Western Michigan

University, which is estimated by the office of financial aid at $19,208 for tuition, fees, and books for a bachelor degree (2000), a degree from WGU would cost a student less money. Therefore, a degree at WGU could be $5,000 to $8,000 less than a degree at Western Michigan University. This is a savings of $1250 to $2,000 per year (if a bachelor degree is complete in four years). If a prospective student adds in the cost of living, room and board, travel expenses, and personal expenses, then WGU is considerably less money. However, students at WGU still must pay for living expenses, room and board, an Internet account, a computer, and the time to take the classes. The primary expense one would save over a traditional education is the travel, and if necessary, relocation expenses. These expenses can be considerable, but can the online institutions claim responsibility for saving the student this money? Not if there is a school available nearby. An online student still has to pay a cost of living when taking classes. Perhaps there would be some savings if an online student lived in Cookeville, Tennessee but decided to take classes from an online college located in Boston. Living in Tennessee is cheaper than living in Boston, but there still is a cost of living to be accounted for when figuring out a student budget.

There are those that believe online education will be cheaper than traditional education, in the future. One Penn State research project (William, 1992) states that

> we believe that this (online classes) could ensure the future viability of our distance education efforts, increase the quality and efficiency of many of our academic programs, bring national recognition and prestige to the University through accomplishments in this area, and serve as a source of both cost-savings and revenue generation. (p. 1)

Other researchers who believe online education can be cheaper than traditional courses include Russell (1999) and Brown and Mack (1999).

One could argue that even if online class tuition costs the same as traditional based education, students will not have to pay the costs to relocate to a college, and will not have to pay parking fees, nor pay the everyday transportation costs to travel to school. However, the costs of a computer and monthly high-speed Internet access need to be considered. Many students would not have to pay relocation fees or high transportation costs if they went to a local school; so, this must also be considered when figuring out whether online institutions cost less than traditional schools. In the end, is the online institution saving money for either students or the online institution?

One last concern about the cost of higher education is whether students are able to find funding to attend online institutions. At the time of this dissertation, the federal Higher Education Act, which was created to protect both students and taxpayers from fraud and abuse, generally restricts government aid for distance education. "Among other constraints, postsecondary institutions that enroll more than 50% of their students in distance education are ineligible for student aid funds under Title IV of the act" (Gladieux & Swail, 1999, p. 10). In 1998, Congress did authorize the Secretary of Education to waive such regulations on a limited basis, and test the quality and viability of distance education using various technologies. For instance, the University of Phoenix can offer federal student financial aid support. So, it is possible that a large number of students will be unable to

take advantage of online education at most schools at this time. According to the majority of the research, reviewed, (Regalbuto, 1999; Feenberg, 1999; Merisotis, 1999; Phipps & Merisotis, 1999; Harris, DiPaolo & Goodman, 1997; Saettler, 1990; Cuban, 1986), online distance education is currently and will probably continue to be more expensive than traditional based education.

The First Truth Claim: Web Based Education Commission Testimonies

The Web Based Education Commission testimonies seemed to be split with regard to distance education being cheaper or more expensive than traditional education. Isa Abdur-Rahman states "without a doubt, the World Wide Web presents a means for delivering a multitude of content in a cost-effective manner" (Black College.com, 2000, WEC Commission, p. 1). However, a majority of the testimonies that argue online education could be cheaper than traditional education, indicate it will take some time and a massive commitment. According to the representative of Virtual Learn Inc. (2000), online education will be expensive, but it will be worth the social investment. The WEC Commission (2000) states that

> Not only will a great education system provide smarter citizens, these smarter citizens will earn more money and pay more tax. That simply translates into a direct return on investment to say nothing of the money saved on prison, welfare and drug rehabilitation. (p. 1)

Other individuals who testified that online education could be cheaper (representatives of Sun Microsystems, The Jason Foundation, Teacher Accreditation, SIIA, Lohnes & Albertson, and Michael B.

Goldstein of Dow) believe that current federal and state laws may make it hard for online colleges to compete at cheaper rates. Other problems were also mentioned (WEC, 2000), such as:

> Substantial delay(s) in implementing a program, and, lurking just below the surface, the refusal of instrumentalities of a state to recognize credentials awarded by the institution. This is a particularly important issue in terms of professional education where subsequent licensure is required. All this can result in competitive disadvantage versus home state institutions, not to mention adverse publicity, cost, both in terms of licensure fees and the professional services necessary to secure approvals, and the implications of having to address a legally uncertain environment while at the same time seeking to access the capital marketplace. (p. 1)

Of the testimony that indicated online education would be more expensive than traditional education, many of the people (Ryan Watkins, PBS, Mary Halnon) cited computers costs, the need for small class sizes, and add-on costs for online students, among many things. According to Mass Networks (WEC, 2000),

> online education is expensive: there is simply no way around it. Unless this country, from the national level on down, admits to this reality and reverses the trend of our tax structure to continually reduce the load on business and the rich, we will never have enough money to do the job for everyone. (p. 1)

Certainly, the Web Based Education Commission report asks for alterations to the Higher Education Act so that all approved distance education schools can have access to federal financial aid. However, at this time, most schools that are primarily or entirely distance education cannot offer federal financial aid.

Overall, the Web Based Education Commission testimony both supports and refutes this truth claim. However, those that support online education are careful to dance around the discussion, and rarely

directly declare that it will be cheaper, only that it has the potential to be cheaper.

The Second Truth Claim: Online Education Is an Efficient Way to Address the Rise in Student Attendance

Introduction

The second truth claim that the online institutions made was that online distance education is an efficient way to address the rise in student attendance in higher education. However, no clear proposal was provided by the schools represented in this dissertation, as to how online distance education could accomplish this particular truth claim. It is important, according to this truth claim, that as many people as possible have the opportunity of a post-secondary education in the United States. According to those schools that made this truth claim, education has become, and will continue to become, increasingly important for occupational and personal success. Students need more education and higher levels of education (more credentials).

Examples of online institution claims include Stanford's website which suggests that online institutions can help avoid the cost of building the new schools that are needed due to the population growth and overcrowding of many areas in the United States. Western Governor's website states "it is common knowledge that demand for higher education is growing—growing so rapidly that there is little chance that state budgets, private endowments and corporate support for education and training can keep pace" (WEC, 2000, p. 1). WGU suggests that, through

their program, education providers can expand access to higher education, efficiently deal with classroom overcrowding, while, at the same time, keep the costs for that expansion in check.

The Second Truth Claim: Online Distance Education Research

The research clearly supports the fact that enrollment rates of higher education are on the rise. At public universities, "the annual rate of increase of students enrolling in higher education classes was 4.3% between 1980 and 1990, but 6.2% between 1990 and 1993" (Alsalam, 1996, p. 3). Between 1988 and 1998, enrollment increased from 13.1 million to 14.5 million (a total of 11%).

None of the research examined for this dissertation reported offering an online class with more than forty-nine students. Therefore, if distance education is supposed to be able to handle the increased numbers of students, either more teachers need to be hired, or class sizes must increase. Of the research reviewed, there was no data presented that could support the idea that large online distance learning class sizes would produce high quality and effective results. Indeed, as was discussed in the section above, several research reports indicate that small class sizes are necessary in order to keep the quality of the education up.

In discussing whether online education will alleviate the rise in student attendance in higher education, it is important to mention the current high drop out rates associated with online distance education. Data from UCLA, for example, show that during the first few quarters of

online course offerings, retention rates were 50-60% (Carr, 2000), p. 40). Of the research reviewed in this dissertation, it did not matter whether the research was pro online distance education or not, drop out rates from 35-50% and as high as 65% were common (higher than traditional education). Examples of research that reported high drop out rates include Graham (2001), Hara and Kling (2000), Lauzon, Gallant, and Rimkus, (2000), Regalbuto, J. (1999), and Harris, DiPaolo, and Goodman (1997).

According to Slaughter and Leslie (1997),

> a college degree no longer guarantees a good job. The percentage of net job growth for employees with some college education or more in the low-income stratum, increased by 12% from 1979-86. The percentage of net job growth for employees in the middle income stratum decreased by 9.2% in the same period; the percentage of net job growth for the high income stratum decreased by 7.8%. (p. 31)

However, is the solution a college education for everyone? The vast majority of new jobs being created are in relatively low paying service occupations. The Bureau of Labor Statistics projects that the occupations in which the most new jobs will be created over the next decade are salesclerk, followed by nurses, cashier, general office clerk, truck driver, waiter/waitress, nursing aide, janitor, and food preparation worker (http://www.bls.gov). Vast numbers of new jobs in the U.S. are temporary jobs that are in the service industry and because of this "Manpower is now the largest employer in the U.S" (Bromley, p. 11). If online institutions actually are able to handle the rise of enrollment in higher education by providing more students the opportunity to earn a degree online, how will they account for the

increased competition for the relatively few high paying jobs that are available? Is it a positive situation that everyone has spent the money and time for a college degree, only to find out that the job awaiting them is at a fast food chain?

The Second Truth Claim: Web Based Education Commission Testimonies

There was not sufficient material from the Web Based Education Commission testimonies, report, or website, to discuss whether the Commission would support or refute this truth claim.

The Third Truth Claim: Online Education Will Prepare Students for a Global Market

Introduction

The third truth claim that the online institutions made was that students need to understand the global job market and will receive access to it via online education. Without providing any support, all six of the online institutions claim that online education will provide students with the proper tools to prepare for global markets. The University of Phoenix online (http://www.petersons.com) claims that their class material is more globally relevant than what is found in traditional classrooms because they keep their class topics up to date with technology changes. Stanford's website claims "there is a need for students to be prepared for a global market" (http://stanford-online.stanford.edu/). Furthermore, Stanford argues that online education has the ability to rapidly change to keep up with the latest

technology. This ability to rapidly change is somehow a better way to keep up with the global world. No explanation for how online education can change faster than other forms of education delivery is provided, nor is there any research cited that would provide any insight as to how online education could achieve keeping up with the current global market. Supporting the idea that online education is superior to traditional education in learning about and keeping pace with the global economy, Penn State's website makes the claim that online education allows for "the competitive advantage that helps build security in an ever-changing global business environment" (http://www.worldcampus.psu.edu).

A problem with this truth claim is that none of the online institutions provide a reason for why traditional education cannot provide the same quality of education, or change as rapidly. It is almost as if it is free from the restraints of bureaucracy, time, and instructor understanding as long as the structure of education is virtual (i.e., online) rather than offered in a real structural location. There is a lack of evidence and a lack of models provided by these online intuitions.

The Third Truth Claim: Online Distance Education Research

Because of the limited amount of research, and the fact that most of it is based on case studies, it is difficult to assess whether this claim can be supported by the available research. None of the case studies talked about classes that prepared students for a global world

market. That is not to say that the topics discussed in the class did not (or could not) address this issue. It is just that the research reviewed for this dissertation simply did not mention global markets. Nevertheless, as Harris, DiPaolo, and Goodman (1997) claim that

> rapidly changing technology and intense global competition will continuously modify the knowledge profile required for success on the job and, in some cases, will render some job functions entirely obsolete so that the need for employee training and retraining will increase. (p. 55)

The Third Truth Claim: Web Based Education Commission Testimonies

This particular truth claim, although not addressed in the same manner by the testimony before the Web Based Commission seemed to receive loose support. There was a perspective presented in the majority of testimonies that online education would help develop the global skills of students (whatever that means, since it was not explained). Several testimonies (e.g., representatives of Dow Lohnes & Albertson PLLC, IBM, PBS, among others) addressed the potential, positive impact of online education from a global perspective. From global digital libraries, to the potential for individuals around the world to communicate with one another (which leads to further development of the global marketplace), each testimony had its own unique twist on the issue of the impact of online distance education on globalization.

Charles Lingen (an 8th grade middle school teacher) stated that because of online technology his "lessons have a more global meaning than they ever had before. Even though they are still called Units, I

don't teach a traditional unit on weather in a given block of time, and another on earthquakes, etc. We actually study these topics for a year and watch the material evolve" (WEC, 2000, p. 1). The testimony provided by the representative of IBM concludes that the economy of the 21st century is comprised of a global digital society and that the skills needed to actively participate in the global economy are found in the work of web-based education providers. The call for students to be ready for a global economy seems to be a dominant theme of many of the testimonies that support online education. It is suggested (though not always directly) that online education is the tool necessary to transform education into a structure that provides students with global economy skills.

The Commission report also seems to agree with the testimony. The first sentences in the report talk about the Internet, saying it is global, it is fast, and it is growing rapidly. Reaching to the far corners of the earth, the Internet is making the world at once smaller and more connected, transmitting information at nearly real-time speed. The report clearly argues that online learning will provide important global skills. Although the report does not specifically argue that online education will provide better global skills than traditionally delivered forms of education, the implication can clearly be made.

The Fourth Truth Claim: Online Schools Provide Better Training for New, High Tech Jobs

Introduction

The fourth truth claim of the schools was that the number of traditional jobs will decline, and the new highly technical and specialized jobs that are now being created will demand greater preparation and sophistication. Therefore, job training needs to be accurate, and online classes are able to offer material that is up to date. The latest training techniques and learning styles can be done online almost immediately after a new training technique or learning style is developed.

Although this claim is similar to the claim that online education can better prepare students for a global market, technological job skills are different than understanding global markets. For example, a sales clerk or shelf stocker may find it necessary to operate a computer-based cash register or a stocking database. Because the arguments were presented separately by several of the online institutions and not all of the online institutions provided this truth claim, this truth claim is therefore presented separately.

The manner in which the fourth truth claim was presented by the online institutions was often subtle. Usually, it was suggested that since the class is presented via a technological structure, it is inherently more sophisticated and more efficient for the dissemination of technological information and training. Penn State's website states that technology is the future of new high quality jobs. The website

further declares that there are many problems with traditional forms of education delivery that limit how it can keep up with the pace of technology in job market. The solution, according to the Penn State website, (http://www.worldcampus.psu.edu, 2000) is that

> the technologies of distance education present the University with a valuable resource that can be tapped and utilized to address many of the problems that are now before us. Our contention is that those universities that embrace these realities will gain a significant strategic advantage over their competitors and lay a foundation for future growth and stability. (p. 1)

Thus, Penn State is arguing that schools that do not adapt to online education will fall behind, and carry additional burdens trying to cope "with those forces that are already acting upon higher education" (http://www.worldcampus.psu.edu). Just what the additional burdens are, or the realities of new technology, or even what those forces are is not clearly portrayed. However, they seem to be central to the arguments that Penn States makes about the value of online education.

The University of Phoenix uses a quotation from Robert Finni, a product manager for AT&T, as evidence that their online university provides better training for a high technology job than traditional schools. "I was able to bring practical hands-on experience from work to class, and vice-versa. It was challenging, thought-provoking. It's not like regular school where you attend a class and then put it aside, you're living the education. It becomes a part of you" (http://www.petersons.com).

The Fourth Truth Claim: Online Distance Education Research

Stanford's Sloan Report (1994) claims that students need to obtain

technology skills for future jobs. "As the knowledge base continues to expand, the number of traditional jobs will decline and the new jobs created will demand greater preparation and sophistication" (Harris, Dipalo & Goodman, 1994, p. 5). The Technology Alliance in collaboration with the U.S. government, completed research in 1998 in which they found that "approximately 450,000 jobs in the technology sector in the U.S. currently are going unfilled because there are not people educated and trained to do them" (Smith, 1998, p. 10). According to the U.S. Census Bureau website, there were more than 205 million people over the age of 18 in the United States in 2000. The Bureau of Labor Statistics (1998) projected that there will be 3 million jobs available in the technology industry over the next ten years. Upon critical reflection, technology jobs would only account for about 1.5% of the potential job seekers over the age of eighteen. According to the U.S. Census Bureau website, the population of U.S. citizens between 25 and 59 is about 133 million. This may be a more reasonable base, since it controls for the elderly who may not be on the job market, and for potential college students between 18 and 24. However, even if the pool for high tech jobs were only 133 million, the three million high tech jobs would only account for 2% of the potential job seekers.

There is little doubt that there are going to be technology jobs available, but are there enough high technology jobs to warrant a massive education transformation of higher education? One might argue that many new jobs will require new technological skills. Future teachers and secretaries will need to learn how to use software such as

word processors, database and spreadsheet programs in order to be competitive in the job market. However, is it reasonable to include the jobs that use computer software under the rubric of high tech jobs? Of the research reviewed for this dissertation, none of it addressed whether online education could better cope with high technology jobs better than traditional education.

The Fourth Truth Claim: Web Based Education Commission Testimonies

With certain testimonies (e.g., IBM, Macromedia, Mass Networks, Sun Microsystems, Apple, and Microsoft) there is general support for the claim that online education will be a better training ground for high tech jobs than traditional education. It is certainly argued that technology, such as computers and the Internet, is needed in the classroom. However, not one testimony openly endorses online education as better suited for training students for high tech jobs than traditional education.

The Commission report goes somewhat farther. It declares that the traditional classroom has been transformed and there is no going back. The report (Kerrey & Isakson, 2000) states

> the World Wide Web is a tool that empowers society to school the illiterate, bring job training to the unskilled, open a universe of wondrous images and knowledge to all students, and enrich the understanding of the lifelong learner. The opportunity is at hand. The power and the promise are here. It is now time to move from promise to practice. (p. 1)

Kerrey and Isakson seem to believe that online education (or a least a hybrid) is not a choice, but a necessity for students to keep up with the technological world.

The Fifth Truth Claim: Online Education Will Increase Minority Percentages in Higher Education

Introduction

The fifth truth claim is that online education will increase minority percentages in higher education. Stanford's website states that when it comes to the low rates of minority education "optimists believe that the emerging technology will have a positive influence by facilitating more viable educational experiences for all (minority) students" (http://stanford-online.stanford.edu/). This increase in minority participation is accomplished by classes adapting to different learning methods, and by accommodating the widest possible rates of learning. Although the United States Open University does not state directly that online education can help increase minority attendance, they do explain that the benefit of their online classes over traditional classes is that they "seek to reduce all major barriers to higher education and work to help students from every background and level of preparation" (http://www.open.edu/). Why the structure of online education is more suitable for multiple styles of education, or why (how) education will suddenly change after years of not accommodating multiple learning methods, paces, or educational topics is not explained by any of the online institutions.

The Fifth Truth Claim: Online Distance Education Research

According to Gladieux and Swail (1999),

the ratio of students to computers with Internet access is highest

> in schools with the largest proportions of minority and poor students…what we do understand is this: virtual universities will help only those who have the necessary equipment and experience to be comfortable with the technologies. (pp. 17-18).

According to Gladieux and Swail (1999), the reality is that students who come from low income and minority backgrounds are less likely to have been exposed to computers and the Internet at home and school. "About 40% of classrooms in schools with the highest concentration of poor students have Internet access, compared to more than 60% of classrooms in schools with the lowest concentration of poor students" (p. 18).

According to Schreiber and Husak (2000),

> the biggest Internet adoption gap in the U.S. exists between rich and poor, not ethnic groups" (p. 1). Still, 60% more white households than African-American households are online. African Americans and Hispanic Americans have the lowest Internet penetration, at 30% and 33% respectively in 1999. (p. 1)

According to Irving and Levy (1999), "the gaps between White and Hispanic households, and between White and Black households, are now approximately five percentage points larger than they were in 1997" (p. xvi). Nevertheless, according to Irving and Levy for Americans of $75,000 and higher, the divide between Whites and Blacks has narrowed. "These findings suggest that the most affluent American families, irrespective of race, are connecting to the Net" (Irving & Levy, 1999, p. xvi). "A child in a low income White family is three times as likely to have Internet access as a child in a comparable Black family, and four times as likely to have access as children in a comparable Hispanic household" (Irving & Levy, 1999, p. 1).

Jupiter Communications projects that by 2005 more African Americans will be using the Internet than during any other time in the

Internet's history. However, where will the students have their online access, and what they will be doing? According to Snyder and Hoffman (2001), black students in 1997 used computers in school in the grades 9 through 12 at about 72.9% as compared to 71.9 for whites. However, the same report states that the percent of students using computers at home is 60.9% white and 21% black. The students using computers at home for schoolwork is 49% white and 15.6% black. This report shows that there is still a large disparity of how computers are used in schools. Therefore, although Internet access may be increasing among minorities, it is critical to understand that access alone may not be enough. "Despite the overall high levels of computer and Internet use, not all students enter college with Internet savvy" (Sax, Astin, Korn, & Mahoney, 1999, p. 1).

If minority students do not have access to the Internet from home, how are they going to be able to attend online classes? Is there going to be a nearby public library, a local free (or inexpensive) Internet provider, or a school that will allow the virtual student access to the Internet? None of the research reviewed for this dissertation addressed how online distance education will increase minority percentages in higher education. Nor did the research address how poor minority students will acquire computers or Internet access at home. In quite the opposite fashion, the research seemed to support the position that the Internet, at least at this moment, was a source for inequality, a digital divide (Spooner & Rainie, 2000; Irving, Levy & Kelly, 1999; Hopkins, 1997).

The Fifth Truth Claim: Web Based Education Commission Testimony

Although few of the testimonies addressed this particular truth claim, there were some that provided a strong argument in favor of online education being a possible tool in the future to improve minority education. Isa Abdur-Rahman of Blackcollege.com stated in his testimony, "web-based education represents an opportunity for closing the achievement gap" (WEC, 2001, p. 1). While expressing the potential, Abdur-Rahman did mention that there are shortfalls in access for minorities and solving these shortfalls is essential. "There is no place where the digital divide will be more heavily felt than in education" (WEC, 2001, p. 1). One of his suggestions was to invest more money for Internet access in school districts that do not have it. This seems simple enough, but Abdur-Rahman fails to provide any evidence as to why educational quality and opportunity will increase for minorities once they have access to the Internet.

A representative of the United Negro College Fund offered testimony that focused more on the potential problems of the digital divide between minority students and whites. "The digital divide between black and white colleges is even greater than the divide nationally. This may be the most significant problem historically black colleges and universities will have to address this century" (WEC, 2001, p. 1). With this concern in mind, it seems that the representative of the United Negro College Fund feels it is necessary for minorities to have Internet access. If minorities had equal access to the Internet, this would provide for a positive impact on their education. Therefore,

while the United Negro College Fund representative feels that online education has the potential to help minority students, the concern is that minorities are not now, and may not in the future, receiving the same level of opportunity and access to Internet based education.

The Commission report clearly supports the ideas that minority students do not have enough access to the Internet, or computers in their schools, or in their homes, or their neighborhoods. "About a third of the U.S. population uses the Internet at home; only 18.9% of Blacks and 16.1% of Hispanics do so" (Kerrey & Isakson, 2001, p. 25). However, the commission report indicated that once these problems were solved, online education would be a tool used towards greater equality among United States citizens. However, no evidence, or solutions are provided in the report for how online learning will help minority students. There were no plans discussed in the report on how to make online education more accessible to minorities, only intentions. Overall, when addressing the topic of minority access, the general theme of the report was that the level of access was appalling but that it will be fixed. In effect, it suggested that once the problem of access is solved, minorities would have more opportunities to better themselves in various ways, more opportunities than what traditional education has provided them so far.

The Sixth Truth Claim: Online Education Is Emancipatory

Introduction

The sixth truth claim is that online education will change the way

instructors will teach and the ways students will learn. The change will come because online education is student centered rather than teacher centered. To support this claim, the online institutions state that online education is not based on methods that traditional schools typically use (although they do not mention what these methods are). However, there is no clear definition provided by the online institutions of what teacher centered education means. Often, the term student centered education in the education literature is associated with emancipatory education. Yet, no definition is provided of what the online institutions consider emancipatory education.

It is not even clear that the universities have similar definitions in mind when they use the term student centered. It is likely that the online institutions making this truth claim do not intend to compare their educational models to Freire's (1997). However, these online institutions do use the same kinds of language and dialogue. For the sake of clarity, it is therefore important to briefly discuss representations of student centered and emancipatory education.

Stanford's website reports that online education is revolutionary in that it takes a student centered approach. According to Harris, DiPaolo and Goodman (1994),

> In its complete manifestation, the virtual classroom will liberate both the teacher and the learner from both geographical and temporal constraints. Instruction will become a process, which can occur at any time and at any place, at the independently determined convenience of the teacher and the learner. (p. 17)

The Penn State website states that online learning is so powerful that it is more directed to the student's needs and desires. William (1992),

states that

> The most advanced distance education programs can provide students with far greater involvement in the process of learning and allow them the exercise of far greater control over that process than is possible in many traditional learning environments. (p. 10)

Freire (1997) argued that a student centered education focused on instructors understanding their students, from the student's perspectives, and in turn learning how to teach from those perspectives. The classes would never be completely pre-structured, but would allow for the flexibility necessary to allow a student to achieve a goal from their own perspective, or for that matter to choose which goals they want to accomplish. However, Freire argued that it is more important that students learn how to arrive at a conclusion or solve a problem themselves. For Freire, education is emancipatory if the instructor guides the students, but allows the students to eventually solve the problems they encounter, using their own understandings of a particular topic. Students must learn to spell a word or solve a math problem correctly, but how they arrive at that understanding is based on the instructor allowing the students to develop and foster their own unique styles of understanding.

There is no doubt that online education is different from traditional education. There is no doubt that an online classroom will be delivered in a fashion structurally different from a traditional classroom. What does it mean when a class is declared to emancipatory? What is the extent of the difference between online education and traditional education, other than the obvious structural difference?

However, emancipatory education is a topic that education authors like Freire (1997), Bromley (1998), Apple and Jungck (1998) and Giroux (1998) discuss frequently.

The Sixth Truth Claim: Online Distance Education Research

Whether the literature supports this truth claim depends on how one interprets the statement that online education is emancipatory. Quite literally, online education is different from traditional education. Online classes can be asynchronous, meaning that students can take classes at their own pace, freeing them from the time constraints of a class schedule. However, Self-paced classes are not a new phenomenon. Courses that are taught by correspondence and independent studies provide self-paced opportunities.

Students are also freed from the need to be in a physical classroom, which may (or may not) be oppressive. Teachers using the structure of online education to deliver their class material are using technology as their structure, instead of a physical classroom space. Therefore, using a computer and an Internet connection is different from traditional education. One could say that the emancipation of the student is from a singular physical temporal structure to a virtual, timeless one.

None of the research reviewed for this dissertation, showed results that addressed changes in the way instructors taught their students other than changes in the structure through which the class was delivered. If online education is inherently emancipatory, none of the

research reviewed for this dissertation provided evidence to support such declarations. Several researchers suggested their online class experiences were better than their traditional class experiences. However, these suggestions did not try to account for such extraneous factors as student experience, GPA, drop out rate, online comfort, gender, race, or age.

Some materials were more theoretical or perspective driven, and which did make claims that online education has the potential to be emancipatory. For example, McDonald (2000) declared that access to electronic publications, libraries, and scholarly journals by everyone, including students, has a "leveling effect through increasing access to specialized resources" (p. 132). McDonald also said that the Internet allows groups with common ideas to meet with each other without the physical constraints that would make such meetings impossible. He also believes that the Internet can be used for countering oppression and can empower students to hold professionals accountable for the quality of instruction being offered. Finally, "professionals can, when promoted with emancipation interests in a guiding role, encourage the development of alternative forms of service delivery" (McDonald, 2000, p. 133).

Feenberg (1999b) and Harrison (1995) argue that in the hands of instructors who know what they are doing (both technology and pedagogy), online instruction is superior to face-to-face instruction. Feenberg (1992) remarks that

> the outright "unqualified rejection of online education contradicts our experience at the Western Behavioral Sciences Institute. There the virtual classroom was a place of intense intellectual and human interaction. Literally hundreds of highly

> intelligent comments were contributed to our computer conferences each month by both students and instructors. (p. 1)

Feenberg states that the quality of online discussions he had surpasses "anything I have been able to stimulate in my face-to-face classroom" (p. 1).

Gillani (2000) believes that online distance learning offers students enough time to complete their assignments at their own pace, thereby creating more of a student-centered atmosphere, where the students have more control of their education. Online education allows an instructor to "place student's needs at the heart of the design process and to take their backgrounds into consideration" (p. 163). Gillani believes that online education can help instructors create courses that are custom tailored for all students. Other examples of works that share Gilliani's ideas include Kerrey & Isakson (2001), Daugherty, Grubb, Hirsch, Gillis (2000), Testa (2000), Navarro (2000), Lauzon, Gallant, Rimkus (2000), Ehrmann (1999), Harris, DiPaolo, Goodman (1994).

Several authors reflect on the problems with online distance education for students that would contradict this truth claim. These include Hara (2000), Martin (1999), Al-Kodmany, George, Marks, Skach, (1999), Apple, Jungck, (1998), and Cuban (1986). However, all of the analysis and opinion is indirect. None of the research critically addresses whether online education is emancipatory or more student-centered than traditional forms of education. With regard to the topic of emancipatory, student centered education, or whether online education will change how individuals learn, the majority of the literature seems

to provide support for this truth claim in its potential rather than in its reality. Moreover, deciding whether online education is more emancipatory than traditional education depends on the perspective of what student centered education is.

The Sixth Truth Claim: The Web Based Education Commission Testimonies

The testimony given to the Web Based Education Commission, did not address this truth claim in detail. Of the testimonies that did address the notion that online education will change the way, instructors will teach and how students learn (e.g., Charles Lingren, Doug Levine, Frank James, IBM), none gave specific examples. Instead, the discussion centered on the perspective that online education is different and it was assumed that this is good, natural, or preferred. An example can be found in Frank James's testimony. He states "once a PC is online, the meaning of personal changes. The individual user achieves greater access, (and) experiences greater power online" (WEC, 2001, p. 1). In conclusion, the testimony does not clearly support or refute this particular truth claim.

The Seventh Truth Claim: Online Higher Education Is as Good or Better Than Traditional Forms of Higher Education

Introduction

The seventh truth claim was that online higher education is as good or better than traditional forms of higher education. The truth claim centers around the notion that the dissemination of information,

how students learn, and the student results (grades, satisfaction, knowledge) are the same or better in comparison to traditional educational delivery models.

Penn State's website strongly states that online education is better than traditional education for most students and degrees. William's (1992) writes,

> in short, distance education is an activity with far greater ability to capitalize on opportunities and return more on its investment than many traditional programs that are tied to the twin realities of space and the limited student/teacher ratios predicated by face-to-face instruction. (p. 6)

William continues with the position that schools must quickly develop online programs or be lost.

The Seventh Truth Claim: Online Distance Education Research

Russell (1999) reports that there are 355 research reports, summaries, and papers from various times in U.S. education history that show distance education is as good or better than traditional modes of education. Yet, Russell rarely provides a measurement standard by which to evaluate his claims. When there are standards provided in the individual reports, they are variably and inconsistently measured. Others such as Lane (1989), Hanson (1997), Phipps, Wellman, and Merisotis (1998), Phipps and Merisotis (1999), and Kerrey and Isakson (2001) argue that there is not enough quality education research available to draw a conclusion.

Phipps and Merisotis (1999) and Kerrey and Isakson, (2001) both argue that there is a relative paucity of original research dedicated to

explaining or predicting phenomena related to distance education. Phipps and Merisotis argue that the amount of written material devoted to distance education is extensive, and includes policy papers, how to articles, and essays, as well as a limited though not insignificant body of original research. Phipps and Merisotis (1999) state that

> with few exceptions, the bulk of these writings suggests that the learning outcomes of students using technology at a distance are similar to the learning outcomes of students who participate in conventional classroom instruction. (p. 1)

Saba (2000), Russell (1999), Brown and Mack (1999), Heinich (1991), and Papert (1984) were a few researchers that believed online education at this time is just as good or better than traditional education. Most of them suggest there is enough research to support this position and that U.S. education needs only to adapt a system that uses online education in order to improve. Yet, except in Russell's case, not much of the research is cited. Of the research that is cited, much of it lacks concrete evidence or experience, and is more theoretical than analysis of actual results.

Some of the authors who completely disagreed with this truth claim include Martin (1999), Anglin (1991), Saettler (1990) and Cuban (1986). There were many (Feenberg, 1999; Merisotis, 1999; Kent & McNergney, 1999; Al-Kodmany, George, Marks, Skach, 1999), that thought online education had potential, but generally thought that most online classes were still far from currently being as good as or better than traditional education. Other authors (Kerrey & Isakson, 2001; Fatemi, 1999; Regalbuto, 1999; Trotter, 1997; Harris, DiPaolo, Goodman, 1997; Paul, 1993) also supported the idea that online distance education had

great potential, but argued that online distance education still needed a large amount of research and tweaking in order to make it work to its potential.

To summarize the research on the quality of online distance education, the majority agree there is at least potential for online education to be at least as good as traditional education, depending on how the Internet is used. However, it also seems to support the position that even though there is potential in online distance education, in its current state, it is usually not as good as traditional education. For instance, Regalbuto (1999) found that small class sizes, teacher training, synchronous classes, and a rigorous comparative research of traditional methods versus online methods needs to be done in order to ensure quality. Kerrey and Isakson (2000) believes that there is a necessity to create a nationwide high speed Internet network before quality online education can occur Harris, DiPaolo, Goodman (1997), believe that classes need to have synchronous interaction such as real time video lectures, and instant messaging.

The Seventh Truth Claim: The Web Based Education Commission Testimonies

In general, the testimony on this topic received by the Web Based Education Commission seems to support this truth claim. Abdur-Rahman (2001) of Blackcollege.Com suggests that communication happens more rapidly on the Internet than with traditional forms of communication. Since learning is a fundamental form of communication, students will be able to learn much faster with the Internet than those that do not have

access to the Internet. Other testimonies that support the position (e.g., Charles Lingren, Doug Levine, IBM, Apple, Microsoft) assert that technology is the key to solving many of the problems that current school systems are experiencing. For instance, the testimony provided by the representative for IBM states using online case and staffing management tools, data bases and collaboration tools, "teachers can access a community of experts to help define learning problems and access a strategies data base for addressing learning requirements" (WEC, 2001, p. 1). Apparently, these resources did not exist according to IBM, before the advent of the Internet. The Commission report also conveys the viewpoint that online education is better than traditional education. In the section of the report titled "What are We Waiting For" Kerrey and Isakson (2001) write, "we believe that this call, if heeded, would squander a momentous opportunity in education. This Commission believes that we have sufficient evidence to know that the Internet—if used wisely—enhances education" (p. 4).

The Eighth Truth Claim: Online Education Can Reach Students From Remote Locations

Introduction

The eighth truth claim that the schools made was that there is a need now and in the immediate future for the delivery of higher education in remote areas. Online institutions can do this. With online education, an individual can take classes from anywhere in the world, and at any time. There is no explanation given for why there is

now more concern for reaching potential higher education students in remote areas. One might argue that even if a student from a remote location did get a higher education degree online, in many situations they would have to move in order to get a job. Therefore, it could be argued that those who are willing to relocate for a new job would probably be more likely to relocate for an education first.

Penn State's website declares that rural areas in the United States need access to education more than ever. The website also claims that the great promise of distance education is that it is a tool to enhance quality, increase efficiency, and improve the effectiveness in higher education. "The most obvious benefit of distance education is that it can provide access and opportunity for learners who cannot obtain education due to geographic or physical isolation or other factors: (http://www.worldcampus.psu.edu, 2000, p. 1). Western Governors seems to share the same sentiment. On their website, they state that the great thing about their university compared to traditional universities is that "students can learn from teachers located all over the world" (http://www.wgu.edu). The United States Open University also claims that, unlike traditional universities, they are open as to the places that education will occur. They claim that they are able reach students wherever they live or work, irrespective of whether they remain in one location or are mobile during their study. They claim that students are busier and more mobile than ever before, and need to be able to take classes from rural locations, as well as anywhere.

The Eighth Truth Claim: Online Distance Education Research

Several authors suggested that online education would help attract and reach potential rural students. For example, Kerrey and Isakson (2001), Saba (2000), Russell (1999), and Harris, DiPaolo, and Goodman (1994) are some who address this issue. A common conclusion was that now (and especially in the next few years), even more people in the U.S. would be getting online, with a large increase among rural Internet users. This increase in the number of rural Internet users will create a broad base of new users who will want to take classes via an online institution. However, none of the research that focused on online distance learning produced any facts or results that would indicate such a conclusion. No research polls that asked rural or remote residents what they think about online education could be found. Of the research reviewed, none of it provided any evidence as to whether there is a demand for online institutions from rural residents.

The conclusion of the demand for online higher education in rural areas seems to originate mainly from administrators, politicians, and some educators. Research that addressed the digital divide of rural students, such as Irving and Levy (1999), and Gladieux and Swail (1999), argue that rural students are not as likely to have Internet access. "Urban households with incomes of $75,000 and higher are more than twenty times more likely to have access to the Internet than rural households at the lowest income levels, and more than nine times as likely to have a computer at home" (Irving & Levy, 1999, p. XV). Are rich rural students the potential targets of online educators?

Ramsey (2000) reports that households in rural communities "were at least 25% less likely to have Internet access than households in urban areas" (p. 1). Regardless of income level, Americans living in rural areas are lagging behind in Internet access. "Indeed, at the lowest income levels, those in urban areas are more than twice as likely to have Internet access than those earning the same income in rural areas" (Irving & Levey, 1999, p. XV).

Where a person lives is a factor in whether they are online or not. According to Lenhart, (2000) residents of the rural U.S. are less likely than urban or suburban residents to have Internet access. More than 40 percent of rural residents never use computers. He concludes by writing, "high-minded pitches about civic, educational, or even commercial virtues of the Internet would probably not be enticing to those in the Never group" (p. 9). If rural students are a prime consideration for why online distance learning should be implemented, then a real problem is the lack of Internet access that rural citizens have.

If rural areas have more adults that do not have access to the Internet, then what are the chances they are going to get online in the near future? "Half the adults in America do not have Internet access and 57% of those non-users are not interested in getting online" (Lenhart, 2000, p. 2). Furthermore, "32% of those without Internet access now say they definitely will not get Internet access and another 25% of non-Internet users say they probably will not venture online" (Lenhart, 2000, p. 2). The future is a possible solution, but currently

the truth claim that online education will be the solution for the need for rural higher education is not supported by the research. Although nearly 60% of rural households are online, if this number needs to grow in order for a big enough market to appear, the research does not provide support for it in over the next five years. Further, there was no evidence presented to indicate how many of the rural residents who do have online access want to take online classes. An assertion is simply made without any research provided to support it.

A current example that distance education may not involve as many global, remote, or rural students as online institutions claim is Stanford's project, reported by Harris, DiPaolo and Goodman, (1997). The Stanford Asynchronous Distance Education Project had a total of 450 students use an online education system during the funding period. Use of the system was offered simultaneously to on-campus students and to distance students. Approximately 64% of students using the system were on-campus. In contrast, however, approximately 81% of the total usage (as measured by hits on the server) was by distance students. However, most of the distance students accessed the system from within the San Francisco Bay Area. These results certainly do not provide sufficient evidence that online education reaches more rural and remote users. Moreover, the results certainly were not what Stanford expected nor what the truth claim suggested.

The Eighth Truth Claim: Web Based Education Commission Testimonies

Although some of the testimonies addressed ways that online

distance education will overcome geographical bounds (e.g., Ryan Watkins, IBM, Microsoft), in general they did not provide clear support for one perspective or another. However, the consensus among those who provided testimony was that the rural areas of the United States were highly underdeveloped when it came to Internet access. Emily Hall Vickery, a former language arts high school instructor said, Without sufficient infrastructure and IT skills, rural Americans will not only be unable to compete in a global economy but may be left particularly vulnerable during future adverse economic conditions. "Moreover, an inferior telecommunications infrastructure (if any at all) impedes the settlement of IT- industry in remote areas" (WEC, 2001, p. 1).

The Ninth Truth Claim: Online Institutions Offer a More Flexible Class Schedule

Introduction

The ninth truth claim was schools needed to be more flexible, and offer more choices for people with busy schedules. Inherent in this truth claim is that there is a growing demand for the flexibility that online classes provide. According to the online institutions that made this claim, online education provides for the possibility of easily accessible, continuing education programs for employees that need lifelong learning skills in order to remain competitive in their jobs. Part of the rationale provided for why online schools are more flexible than traditional schools is that asynchronous classes do not necessarily have a tight time schedule where a student must make a class period

every week. Also, there was an idea conveyed in one online institution's website information that online classes could offer more variety and be more flexible about topics offered because the pool for potential students was at least nationwide if not worldwide. Although all six online institutions made this truth claim, none were clear as to what a flexible schedule entails or why students need a flexible schedule. However, all of the online institutions insisted that flexibility was a valuable aspect of their online education program. For example, the Virginia Tech website states, "one of the principle advantages of distance learning environments is the amount of flexibility that they afford (http://www.iddl.vt.edu, 2000, p. 1). The United States Open University's website offers student comments about their school. For example, Helen Turnbull states in her testimony that she liked the online education experience because she loved the flexibility of being able to work and study at the same time (http://www.open.edu/).

The Ninth Truth Claim: Online Distance Education Research

Distance education enrollments overall "were approximately double in 1997-98 what they were in 1994-1995" (Lewis, Snow, Farris, & Levin, 1999, p. 50). In fact, distance education course enrollments are up to 1.6 million students. Thus, there seems to be a demand for distance education, but the demographic data do not make it clear whether there is a demand for online education specifically or distance education in general. In short, the demographic information available does not

support the truth claim that there is a massive demand for flexible Internet classes.

There is an implicit assumption that one reason for the recent demand for flexible education schedules is the growing number of non-traditional students. However, none of the research supported the idea the rates for non-traditional students have suddenly exploded. Still, there currently are a fair number of adults currently taking classes for training. "Some estimates suggest that almost half of the adult U.S. population engages in some type of part-time education or training" (Gladieux & Swail, 1999, p. 11). It might be possible that current adult students would rather take online classes than traditional classes because of their flexible time schedules. However, no representative dataset was presented in the research literature that could be used as evidence for this truth claim.

According to Gladieux and Swail (1999) "many corporations have been training their employees for decades; they have essentially brought postsecondary education in house, investing in their own human capital" (p. 11). Some corporations are now turning to outside educators to help provide their employees with more training. They go on to say that

> the University of Phoenix, for example, is far-flung, and fully accredited. In just 20 years, it has become the largest for-profit private university in the U.S., delivering business and other applied degree programs to 56,000 students at 70-plus sites nationwide. So there is an adult market, but is this market going to demand that classes be delivered via the Internet? The research does not provide support for this claim. The idea that the majority of distance students are older is a stereotype. According to the National Education Association (NEA), NEA faculty teach as many younger students as older students and as many full-time students as part-time students. (p. 7)

Whether this is sufficient, evidence to show a strong need for schools to be more flexible and offer more choices for people with busy schedules is shaky. However, the majority of the research and commentary points to the idea that online distance education can, when using asynchronous technology, be a offered to students at their own pace. However, there was no evidence presented that clearly showed online education to be any more flexible in the schedules offered than traditional education. Most of the choices of classes, programs, and majors offered by the six online institutions were limited. Certainly, it can be argued that if a student could take an online class any time they wanted, turn in their work when they wanted, and finish the requirements of the class when they wanted, an online class would be more flexible. However, are online institutions going to offer one on one classes where online students take classes with no other students other than themselves and with no time constraints? If so, one could pose several questions such as how profitable, how expensive, and how time consuming for the instructor are online classes.

The Tenth Truth Claim: Online Education Can Be Self-Paced

Introduction

The tenth truth claim is that online students can complete their classes as slow or as fast as they wish. For students that have busy schedules, classes can be taken and completed when the students have the time. For students that have the ability to spend more time on their classes, students are able complete their degrees as fast as they can

complete the course work. With online institutions, there is no more wasted time for students. This truth claim is similar to the previous truth claim. However, because many online classes are synchronous, and the online schools claim they are more flexible than traditional classes, a distinction emerged between the two truth claims. Virginia Tech's website states that their online classes are offered in an asynchronous format so that students can do the work when they choose. The University of Phoenix Online offers testimonials from their former and current students about their experiences with online education. For example, one previous Phoenix student claims that he was able to earn his degree in only 22 months. All of the online institutions claim that a student can learn as fast or as slow as they want to.

The Tenth Truth Claim: Online Distance Education Research

It is clear that there are various definitions of self-paced education. At Stanford, Penn State, and Virginia Tech, classes all followed some sort of schedule that students had to follow and complete material by certain due dates. The for-profit schools (University of Phoenix Online, Western Governors University, and United States Open University) are offering a form of self paced classes, but students still have certain deadlines they must eventually meet in order to get credit for the class. Phoenix online classes are usually four to six weeks long, while at United States Open University they last sixteen weeks. Western Governors University's schedule is similar to a typical semester system. The Western Governors website states that it takes a

student almost four years to earn a degree. All six of the schools state that no late work will be accepted, and that classes always start at the same time.

If this is the case, it appears that it is impossible to take classes faster than they are offered. If so, what does self paced mean? To say online learning is completely self-paced appears to be somewhat deceptive. Are online students going to do the work faster than traditional students do? Does self-paced mean doing the work whenever it is convenient for the student? None of these questions are answered. What is apparent is some schools offer classes that may not meet on a regular basis but do require assignments turned in by certain dates. Such classes have a limited amount of self-paced ability. In effect, self paced means that in a given week a student can pick the times and the days they wish to do the work. Other than actually attending class meetings, this is very similar to traditional education.

The Eleventh Truth Claim: Some Online Institutions Allow Individuals to Earn Credits and Eventually a Degree Based on Prior Competency

Introduction

The eleventh truth claim that schools made is that online students can receive certification in a particular degree program. Why should students take classes if they already possess a skill, have prior experience, or previous training? All of the universities addressed this issue, but only the University of Phoenix, Western Governors University, and United States Open University offered credit for prior

experience as transferable into a degree program. Students who wish to have prior experience count towards a degree, however, must first take a competency test. In contrast, Penn State, Stanford, and Virginia Tech did not allow students to count previous experience towards a degree.

The Eleventh Truth Claim: Online Distance Education Research

Most of the publications did not address this phenomenon except in passing. Therefore, the results are inconclusive. The Web Based Education Commission and other education research sites did not focus on this topic at all. It can be argued that this might be a good idea, and there are precedents for giving credit for prior experience. Therefore, the tentative conclusion is yes, one can earn a degree at some institutions based at least in part on previous experience.

The Twelfth Truth Claim: Online Institutions Offer a More Personal Education

Introduction

The twelfth truth claim is, unlike most traditional institutions of higher education, online institutions and online education offer a more personal education. With some of the online institutions (such as Phoenix University and Western Governors University), an individual mentor is assigned to each individual and is expected to work closely with the student throughout the student's pursuit of a degree. This is the case at Western Governors University. In the section of the Phoenix website dealing with reasons a students should choose an online

education at Phoenix over a traditional education, the website claims that Phoenix is there for the student's needs, implying that perhaps not all traditional education institutions are.

The Twelfth Truth Claim: Online Distance Education Research

Of the research materials reviewed, none supported this claim. Although there were many that claimed online distance education was better, or the same as traditional education, none of the research claimed that students would have a more personal class experience. However, it is important to note that only the for-profit institutions made this claim, either directly or indirectly. After reading the recommendations of the research (Kerrey & Isakson, 2001; Regalbuto, 1999; Feenberg, 1999; Merisotis, 1999; Phipps & Merisotis, 1999; Harris, DiPaolo & Goodman, 1997), if class sizes are kept small, say 20 students, it could be argued that online classes offer a more personal educational experience. Compared to many traditional schools that have class sizes of 100, 200 or more students, there could be more time to visit with the professor in an online class of 20 students. However, traditional schools could lower their class sizes in order to be more personal. The real question to ask is if traditional and online classes were the same size, would online classes be more personal than traditional classes. The answer to this question is unclear.

Graham (2001), Feenberg (1999), and Russell (1999), among others, report high satisfaction rates among students taking online classes. These researchers conclude that students interact more and seem to like

the class better than those delivered via traditional methods. However, there is also research that indicates the online student's experience is frustrating and lacks personal quality (Hara & Kling, 2000; Lauzon, Gallant & Rimkus, 2000; Harris, DiPaolo & Goodman, 1997). In general, the research available relies on small data sets, does not account for race, ethnicity, gender, or class, rarely accounts for students' abilities to be a self-motivated, relies on the researcher's personal experience, does not use random samples, and usually uses surveys with limited questions. Therefore, the research on whether online classes are more personal than traditional classes is inconclusive.

The Thirteenth Truth Claim: Online Education Will Help Many Non-Traditional Students Better Than Traditional Education

Introduction

The thirteenth truth claim was that students should not have to take time off work to be able to take classes. They suggest that there is a larger elderly student base than any other time in history. Thus, there will be older students in higher education than ever before. There will also be more students taking classes to further their education and job capabilities. Although this truth claim is similar to the ninth and tenth truth claims, and the same arguments are made to support this truth claim, it is clearly more focused on life long learners, students over fifty, and the perceived growing number of individuals who for various reasons (loss of factory jobs, forced early retirement, death of a spouse, children moving away) want to go to

school. Phoenix's website for example, argues that many older non-traditional students may feel uncomfortable attending classes with younger students. They may also want classes that focus on what they want to learn, and can be flexible with their schedules.

The Thirteenth Truth Claim: Online Distance Education Research

Lewis, Snow, Farris, & Levin (1999) do show that there are more students taking distance-education classes. There also appears to be a need for more students to be able to take classes and work at the same time. However, it proved to be impossible to find hard data that reflect how many more potential students would take online classes because they could fit them into their busy schedules on their own time. According to Regalbuto (1999),

> The fraction of nontraditional students in higher education is not as high as some make it out to be, but is still significant. Stemming from the baby boomlet, the number of young, traditional students will be as high as or higher than ever through the next decade. (p. 49)

Even if there are more non-traditional students than ever before, are all of these students ready for online classes? The following were some of the student characteristics correlated with success in distance learning, according to Phipps and Merisotis (1999):

> 1) Students who rated themselves highly on various measures of persistence related to taking on new projects. 2) Married students. 3) Students who rated the consequences of not passing as serious. 4) Students who did not need support from others to complete difficult tasks and did not find it important to discuss course work with other students. 5) Students with high literacy levels. 6) Female students 7) Students who rated themselves as well organized in terms of time management skills and said they generally had the time to do what they intended to do. (p. 16)

One could argue that this fits the profile of some non-traditional students. However, it is also possible that many of the potential non-traditional (over 50) students may not possess the required attributes that Phipps and Merisotis say are necessary to be successful. Therefore, without more research to determine the level of demand for online education by a growing non-traditional population, such a claim is unsupported and speculation at best.

The Thirteenth Truth Claim: Web Based Education Commission Testimonies

Some of the testimony received by the Web Based Education Commission (e.g., PBS, Ryan Watkins, SIAA, IBM, Apple, Microsoft) speaks to the greater flexibility of online education for students. These testimonies do not directly address the thirteenth truth claim, however, unless one can argue that more flexible class schedules and easier communication among professors and students constitutes support for non-traditional students.

A Summary of the Web Based Education Testimonies That Were Undecided and Negative

As Appendix C shows, of the 201 testimonies that the Web Based Education Commission received, only 10 were negative about online education and 18 were either neutral or undecided. It is clear that the undecided and negative testimonies did not provide support for any of the truth claims. Many of the negative testimonies directly attacked many of the truth claims (e.g., truth claims 1,4,5,6, 7, 12, and 13). If the negative or undecided testimonies did not directly attack online

education, they at least discussed the negative implications of online education, implications that were not addressed by the majority of the testimonies. The major difference between those who were positive versus those that were undecided or negative is that the positive testimonies dismissed the problems as easily resolvable.

It sometimes seemed that the undecided and negative testimonies were more prepared with cited research to back up their arguments. One example is Marilyn B. Benoit (WEC, 2001) discussed Erik Erickson's ideas of the role of the family in the development of a child and how technology may inhibit the role of the family as the main stimulus provider. Benoit suggested that it might be possible that the rise in the numbers of Attention Deficit Hyperactivity Disorders could be related to children's constant exposure to rapid-fire stimuli on their brains from sources like television and the Internet.

It seemed that most of the undecided and against testimonies were not comprised of individuals who were against technology. Instead, it seemed that they were claiming that there was not enough research, not enough teachers being consulted, too much corporate involvement, and not enough access to technology for many minorities and those in poverty stricken school areas.

Conclusion

In this chapter, the thirteen truth claims were presented and compared to the research literature in online education and the testimonies given before the Web Based Education Commission. For each

truth claim, there was a discussion of the research literature that supported or refuted the particular claim. In addition, if the truth claim was addressed by the Web Based Education Commission, there was a discussion of the majority of the testimonies as well as the final report of the Commission.

In the end, it is difficult to conclude whether most of the truth claims were supported by the online education research, or the Web Based Education testimonies. Truth claims 2, 8, and 13 received no support at all. Truth claim 11 was not discussed in the other literature but was a factual claim because three of the online institutions actively participate in this claim. Truth claims 6, 7, 9, 10, and 12, depended on the perspective of the person reviewing the results. Although one could argue that the research tended to not support them, there are other individuals who could (and would) argue the research did support their perspective. For example, the sixth truth claim deals with whether online education is student-centered and emancipatory. It depends on how one views emancipatory and student-centered education. If the definition derives from the education literature (e.g., Freire 1997), the answer is no, although there is potential. Truth claims 1, 3, 4, and 5, had some support from the research and/or testimonies but much of the support provided was again along with regard to potential. Direct support for the truth claim was either limited or did not currently exist.

The conclusion is that most of the truth claims had no real support either from the research literature or from the Web Based

Education Commission testimonies. However, the overwhelming result of the research, regardless of whether individuals were positive, neutral/undecided, or negative with regard to online education, was there is not yet enough research available. We cannot accurately conclude whether any of these truth claims are valid, or whether online education is the education phenomenon of the future. It is, however, also clear that the research that is available on online education and distance education does not provide as positive picture of the potential of online education as the truth claims of the six online institutions.

CHAPTER V

CONCLUSION

Introduction

In the previous chapters, a review of the literature relating to distance and online education was provided, the methodological approach was decided, and the results of the research were presented. Of the six online institutions that met the criteria for inclusion in the study, thirteen common truth claims were discovered. After comparing those truth claims to the research and literature on distance and online education, the testimonies presented to the Web Based Education Commission, and social demographic information pertaining to the Internet, it remains to draw some conclusions and implications.

In this final chapter, an attempt is first made to decide whether the truth claims of the online institutions were supported by the other sources. This is followed by a discussion of the possible implications of those results. If a truth claim was supported by the literature, Internet demographics, and testimony before the Web Based Education Commission, an analysis of that support is provided. If a truth claim was addressed by the literature, Internet demographics, and testimony before the Web Based Education Commission but it was unclear whether the truth claim was supported an analysis of the possible perspectives is provided. Finally, if there was no support or inconclusive evidence, for a truth claim, rationales are offered for why institutions would

make such truth claims.

In the second section of this chapter, the truth claims of the online institutions are compared to the theoretical purposes of compulsory education. This comparison to clarify the perspective(s) from which the truth claims derive. Attributing a theoretical perspective to the truth claims will help to provide further insight as to why the truth claims were made.

The third and final section will discuss whether there is inconsistency among the truth claims and if additional research should be completed before, the continued funding of online education should occur. Suggestions for future research and recommendations for online institution policy are also provided.

Conclusion: Section One

The Overall Conclusion

The overall conclusion is that there was not enough information based on quality research, the literature, or the testimonies before the Web Based Education Commission to decide whether the majority of the truth claims made by online institutions are supported. Indeed, some of the truth claims seemed so subjective in nature that it would be difficult to provide support for such positions that appear to be based on little other than on individual opinions or experience.

The dominant opinion from the literature clearly suggests that computers and the Internet will have a substantial impact on education. However, in comparing historical accounts of distance education and

technology-based education with the current literature on online education, it can be argued that there appears to be little difference between the claims that are made today and those that have been made before. According to Kerrey, and Isakson (2001), Feenberg (1999), Phipps and Merisotis (1999), and Cuban (1986) teachers are not being consulted, corporations are insisting that technology is the cure all for the problems of education, and politicians are buying into the Internet. Little research has been published that attempts to understand how teachers, online institutions, and administrators can appropriately, efficiently, and correctly implement successful online programs. There has even been little research on how online education differs from traditional education. From what little research was available on online education, it is evident that there is no consensus regarding the appropriate method(s) of online education delivery, pedagogy, or implementation. It is also clear, however, that corporations and governments are expending huge sums of money to create an online education system in the United States.

Support for Truth Claims Made by Online Institutions

Truth claims 6, 7, 9, 10, and 12 were all addressed by the literature and/or the testimonies before the Web Based Education Commission. However, whether these sources of information supported or refuted the various truth claims is questionable. The sixth truth claim is that online education is emancipatory. As presented in the results chapter, how one defines emancipatory or student-centered education

affects the conclusion one draws. It appears that the online institutions are not using the terms emancipatory or student-centered as they have been presented in the education literature. Since the literature on student-centered education predates the literature on online education, one can draw a number of conclusions. First, online education supporters making the claim that online education is emancipatory apparently do so without any knowledge of the emancipatory education literature. Second, the terms emancipatory and student-centered education are merely jargon that has no deep meeting to those who have used it out of context. Third, those who use these terms for online education know the literature and truly believe that online education is revolutionary (or has that potential). Finally, those who use these terms for online education know the literature and want to appeal those who have read it, or want student centered education, regardless of whether online education can or will be either student centered or emancipatory.

A case can be made when online institutions declare online education to be student centered and emancipatory, that such declarations are inconsistent with the origin and intent of emancipatory and student-centered education. Student-centered education, as discussed by Freire (1997), means that the teacher must listen to the students and that the students are active participants in their own education. In emancipatory education, students are also active participants in their education. Students help shape their own education process. This means that classes are not the same for any one

student, and a teacher allows the class to differ for just about everyone that takes a class. Indeed, in emancipatory education, teachers do not even attempt to create a completely structured plan or class development until they understand their student's perspectives.

It can also be argued that any asynchronous online class must be pre-created and pre-planned if it is to be completed by the majority of the students in a timely manner. It would not be cost efficient, plus it would take a considerable amount of time for teachers to get to know their students before they developed each online class. Indeed, it would require far more effort and time for a teacher to try to understand students without the possibility of personal contact. This is not to say that it is impossible to create an online class modeled after emancipatory education techniques. However, it is not likely to be as easy to achieve the student-centered approach with asynchronous online classes. With some administrators arguing that institutions own the rights to website classroom materials, this is a clear indicator that shaping a class around the students will not considered (Feenberg, 1999).

Many of the current approaches to online education were molded in the method of traditional education, using the banking model. According to Freire (1997) the banking model of education is arguably, what most teachers in the United States are trained to use. In the banking model, the teachers are the experts regarding the information to be covered and in some capacity serve to fill the heads of the students. Thus, the students are mere receptacles of information, and they display how much

they know by re-depositing it back to the instructor (taking a test). Internet technology is considered by many who support online education as a superior vehicle for transferring the information to the students in a faster more efficient pace than traditional educational delivery methods.

If online schools continue using the banking model as their primary approach to educational delivery, then online education more than likely will also use the banking model. Students can log in and work on their homework at "their own pace," but still be absorbing the material the instructor selects. If student-centered education means the students do the work at their own pace (although still meeting a deadline), then online education is more student-centered. If emancipatory education means that students no longer have to travel to be in a physical classroom, then online education is more emancipatory. Whether one argues that online, education is more or less emancipatory and student-centered than traditional education depends on how they view education.

The seventh truth claim, that online higher education is as good or better than traditional forms of higher education, seemed to have support in the some of the literature, and in many of the testimonies before the Web Based Education Commission. However, those that supported this truth claim did not provide evidence in the form of hard research data. Instead, the evidence was provided in the form of personal experience, theory, and opinion. Experience is valuable in making decisions and forming opinions, especially if it is widely shared

and recognized. However, if only a few individuals have a particular experience, this is of little value to the overall conclusion of whether online education is as good or better than traditional education. Although the assessment of this dissertation regarding this truth claim is that the evidence is inconclusive, it must be noted that there are those such as Kerrey and Isakson, (2001), Russell (1999), and Cummings and Sayers (1995) who believe there is plenty of evidence to support it. However, they provide little data to support their claims.

An important debate that is often ignored by those who support online education concerns the value of social interactions outside of class to the overall education of the students. Students in online classes have virtual interactions, but are they the same as the face-to-face interactions; relationships take place in a physical manner? Do they have the same consequences for the students? Little is written about this aspect of education by those who support online education. However, there are those (Giroux, 1983; Collins, 1979; Bourdieu, 1973, 1985), who argue that the interaction in schools is often vastly more important than the information learned in the classes.

To state that education based on online technology will be better than traditional educational approaches because online education is based on technology, seems to be fetishized. One might even suggest that the underlying reason many people believe online education is superior to traditional education is because they have converted to a technocratic faith, where technologies are believed to have independent and special powers and are believed able to solve the world's problems.

When an abstract phenomenon such as technology is reified to the point that it encompasses all of society, that phenomenon has been fetishized. The truth claims of the online institutions are derived from largely human rather than structural problems. To believe that any technology will solve the human-created problems of education (such as schools and teachers not willing to be flexible) is a misunderstanding of the nature of Internet technology a tool.

A further argument against the idea that education delivered online is as good or better than traditional education is that this argument is flawed logically. If education, as it is traditionally delivered is outdated or ineffective, do educators need to change the structure or the way they design the classes? The Internet itself does not do anything different to a class that is offered. The delivery of the information is the only thing that is different. If a class is flawed when traditionally delivered, then it will be flawed when it is delivered via the Internet. The position that online education is as good or better might have support if those that supported online education were dramatically changing their classroom styles, content, methods, and assessment procedures. However, of the online classes discussed in the literature, there were no signs of such dramatic change.

The ninth and tenth truth claims had little support in the literature or in the testimonies. What support there was derived from perspective and opinion not on experience or data. The support for these truth claims was based on the notion that if students have the

ability to access class information at any time of the day the classes are more flexibility. Similarly, those students who are participating in asynchronous class lectures at times of their choice constitute self-paced education. The notions that online education is more flexible and self paced are deceptive. Is online education more flexible? Again, it depends on what one means by flexible. All of the online institutions examined in this dissertation make the claim that students can work at their own pace. Yet, all of the schools required the work to be completed, either according to a fixed schedule that at times was no different from the traditional class schedule, or at other times according to a more accelerated schedule than traditional classes. For example, all of the classes were offered on a semester basis. Similarly, if flexibility simply means a student does not need to go to a class, then online classes are flexible. Many of the online schools claim that students who work full-time have the flexibility to work on their schoolwork on their own time. In this respect, the only difference between a traditional class and an online class is the online student does not have to make a trip to attend the class at a fixed time.

Thus, the argument that online classes are more flexible than traditional classes, and that they can be more self-paced than traditional classes has several fundamental problems. First, the online institutions that made both truth claims have apparently concluded that traditional education could not become more flexible and self-paced. Second, it assumes that the definitions of flexible and self-paced

derive from the structural setting rather than the teachers and administrators. Any school can have more flexible class schedules, and instructors can allow students to finish their work in a faster or slower pace. To believe that online education is better suited for these truth claims because the classes are online is flawed. In order for such changes to occur in the educational process, it is not enough for traditional institutions to move their classes online. For the changes prescribed in many of the truth claims to occur via online education, the individuals that operate the institutions will also have to change how they think about education, what they decide to consider as legitimate knowledge, and how they choose to disseminate that knowledge to their students. This kind of change is far more than a structural change it is a philosophical change. This is not to say online education could not be the new structure to harbor such changes. Nevertheless, after analyzing each of the online institutions, it does not seem that there is a commitment to make significant changes to their education philosophies. Instead, the changes seem only to be structural in nature.

The twelfth truth claim, that online institutions offer a more personal education, was not directly addressed in the literature or the testimonies. This particular truth claim falls into this section because there were several testimonies and articles in the literature, supporting the idea that online education would make it easier for students and instructors to communicate. Another theme was the opportunity for students to communicate on a more personal level,

because they were able to think about what they would say before they responded to a message from an instructor or peer. There also were reports by instructors of how their classes were more enjoyable, and how they communicated with their students more than in traditional based classes. The idea that online education will make it easier for students to communicate with their instructors, and on a more personal level, can be argued to be an important element of a more personal education. Depending on how one reviews the data, the argument could be made that if one reads between the lines, the literature provides several supportive examples.

It is clear that in higher education today, some schools are more student-centered while others pay little attention to their students. It is apparent that the most prestigious universities and research institutes focus on research first and teaching second. When schools have policies that reward research more than teaching, how personal can a traditional education be? At many traditional universities, there are students who do not believe teachers care about their education.

The term personal education, as used by the online institutions, does not mean in person, or the involvement of physical personal contacts that develop into a meaningful relationship. Instead, in that context, the meaning of personal is that someone will be available to a student as a counselor. Someone will be available to mentor a student without the student having to navigate the political process of an institution in order to receive personal attention. However, is this the "personal" education that should be expected by students? If

students are comparing their educational careers at a school, with 30,000 students or more, to an online institution with small numbers, an online institution may seem more personal to those students.

Truth Claims That Have Potential

Truth claims 1,3,43 and 5 were addressed by the literature, and/or the testimonies before the Web Based Education Commission. However, the support provided about these truth claims was based on the potential these truth claims had, and not on existing data or experience. The first truth claim was that online education would make higher education more affordable. The literature, the Internet demographics, and the testimonies argued that online education was currently more expensive than traditionally delivered education. However, some of them suggested that if online education were adopted widely as a major educational vehicle, in time it would cost less than traditional education (Kerrey & Isakson, 2001; Harris, DiPaolo, Goodman, 1997). However, when this conclusion was drawn no supportive evidence was presented. Instead, their conclusions were based on their opinions. Yet, when researchers such as Phipps and Merisotis (1999) questioned the idea that online education could be cheaper, they were criticized by Russell (1999). When reports such as Kerrey and Isakson, (2001) and Harris, DiPaolo and Goodman, (1997) concluded that online education was more money than traditional education, the response was to forge on, and hope that costs will decline over time. Currently, and for the immediate future, the literature, the Internet demographics, and testimonies before the Web

Based Education Commission all support the position that online education costs more than traditional education methods.

The third truth claim (online education prepares students for a global market) and the fourth truth claim (online education provides better training for the new high tech job market) both received mixed support from the literature and the testimonies. There were those that argued that online education has the potential to be better suited for the global and high tech job markets. Nevertheless, there were no studies addressing this possibility. For example, testimonies that supported these truth claims did so only in response to the potential that online education has, not the current reality. These two truth claims had no support based on either data or experience.

The fifth truth claim, that online education will increase minority participation in higher education, was clearly refuted by the literature and the demographics for Internet use. Indeed, of the thirteen truth claims, this one was the most controversial. The report of the Web Based Education Commission addressed this issue in more depth than the testimonies. Of those that did address this conclusion was that there currently is a digital divide for minorities (Kerrey & Isakson, 2001; Schreiber & Husak, 2000; Spooner & Rainie, 2000). Yet, a few of the testimonies (e.g., Blackcollege.com, and United Negro College Fund) concluded that there exists a potential for online education to increase minority participation, if the digital divide is erased. However, a strategy for erasing the digital divide were not discussed, nor was there any evidence presented that the government is seriously

addressing this issue. The literature strongly suggests that many minorities will not have access to online education any time soon.

Truth Claims That Had No Support

Truth claims 2,8,11, and 13 received little or no support from the literature, demographics on Internet use, or the testimony given to the Web Based Education Commission. The assumption of the second truth claim (that online education is an efficient way to address the rise in student attendance) was based on the notion that the numbers of online students will rise and that online classes will eventually be able to accommodate hundreds of students per class. While there was some literature suggesting that online class sizes could be large (Russell, 1999; Schank, 1999), the overwhelming opinion (Kerrey & Isakson, 2001; Regalbuto, 1999; Harris, DiPaolo & Goodman, 1997; Cuban, 1986) was that class sizes needed to be small (at most 25 students) in order for online classes to be run effectively.

It could be argued that online institutions could employ more instructors with the savings they would have by not having to provide physical space, structures, and facilities (e.g., buildings, parking, athletics, recreation, food services). Instructors and students would not need to move to the school's physical location, so teachers from all over the United States (the world, for that matter) could teach at several online institutions. All six of the online institutions reviewed for this dissertation paid faculty to develop classes so that other instructors (e.g., part-time, adjunct) could operate and monitor

the classes. This might mean that, even with small class sizes, an army of part-time instructors could be created to handle the influx of students. However, the discussion then turns to whether this is student-centered education, or whether the quality of the educational experience is the same as in traditional education. For the time being, this truth claim does not have support from the other sources.

There was also no support found for the eighth truth claim that online education can reach students from remote locations. It is of course theoretically possible. Online communications can occur between individuals located on opposite sides of the planet, so why not in the rural United States? However, the demographics of Internet use, and education statistics showed conclusively that many people in rural areas do not have access to the Internet, have slow access speeds, or do not want to get online at all. Although predicting the future is difficult, given the information provided in the literature, it does not seem that either the numbers of people or the speed of access will grow sufficiently to support this claim. It is possible that online institutions assumed that since the Internet has been expanding so rapidly, it was logical to conclude that almost everyone in the United States would soon have high speed Internet access. However, it does not appear that everyone in the United States will have or even wants high speed Internet access in the near future.

The eleventh truth claim, that online institutions allow individuals to earn credits based on prior competency, is presented by the three for-profit online institutions as if traditional institutions

do not participate in this phenomenon. Yet, many schools allow credit to be assigned to a person based on previous experience. The literature, the demographics of Internet use, and the testimonies did not address this issue at all. Since other schools allow credit to be assigned based on experience, it is not clear why these three online institutions presented this truth claim as if it were unique to online institutions.

The thirteenth truth claim stated that online education will be able to help many non-traditional students better than traditional education. This is, in the first place, a vague claim. Second, it assumes that a significant proportion of non-traditional students have Internet connections and enough computer skills to succeed in an online class. Since the research about this claim is inconclusive, and the demographics of Internet use certainly do not support it, why this truth claim was made is unclear.

It could be argued that the online institutions assumed non-traditional students do not want to go to a school that is physical because of travel, relocation, or family issues. As it is presented, perhaps they also assume that these students do not want the social interaction that is provided at traditional institutions. Therefore, they further assumed that an online education is easier and preferable for non-traditional students. Because there is not sufficient information that addresses this claim, it must be concluded that the claim was made without support.

Theoretical Purposes of Education

In this section, the truth claims made by the six online institutions are compared to the theoretical purposes of compulsory education. Attributing a theoretical perspective for these truth claims will help to provide further insight as to why the truth claims were made. It can be argued that the fundamental purpose of higher education is not to be flexible or self-paced but to teach individuals difficult subjects like technology or globalization. Helping minorities, rural, poor, and non-traditional students have greater access to higher education is a championed idea among the literature. However, what is the underlying reason online institutions make these claims? Is it only to market themselves and convince students to pursue a program at their institution, or is there more to it?

It appears that the number one purpose of higher education, at least according to the truth claims of the online institutions, is to make it easier for students to obtain a degree in order to get a job. The most frequently mentioned truth claims center around the potential job skills that students can learn in order to be successful, especially in the global market or in high tech industries. The websites of all six online institutions discussed how they could better train students using online technology. Moreover, because they are using technological methods of delivery, the online institutions assert that corporations will be more likely to want to hire their graduates.

Although preparing students for getting a job is one function of education, is it the only function? The websites of the online

institutions did not discuss improving the minds of their students. They rarely discussed collegiality, the broadening of experiences, or the need for a balanced, diverse education. Even when the truth claims centered on helping minorities, rural, and non-traditional students, it was to facilitate getting a degree in order to get a good job. Like the television commercials that declare today's youth generation to be generation D (the digital generation), there appears to be an assumption that high tech jobs are the future, and that the purpose of education is to simply train students to get these jobs. Other classes - that are not directly related to the job one wishes to pursue - are treated as a burden especially by the for-profit online institutions. However, even if one could argue that higher education is for job training, and that the future jobs are in the high tech industries, these both appear to be unsupported and misdirected claims.

Certainly, the truth claims can find support in Bowles and Gintis's (1976) work. On the websites of all of the online institutions, it is made clear that an important reason for a college education is to help the student get a job. The goal is be part of the economic system. Similarly, Collins's (1979) ideas of a credentialized society seem to support the truth claims. Collins argued that a credentialed society was negative, and was ruining the educational system. The need for a degree in order to be successful results in credential inflation. Thus, with an emphasis placed not on the knowledge learned but on the possession of the degree itself, Collins argues that a college degree has far less meaning than it did a

generation or two ago. One might argue that the ability to think critically, and adjust to any obstacle is a far more valid reason for pursuing a college education. However, according to Collins, there is little concern with what people learn, only that they complete the degree.

One of the consequences of this need for degrees is that individuals must pursue advanced degrees. In turn, the need to delay entering the labor force in order to pursue additional degrees restricts the opportunities for many students because they cannot afford to take any more time off from earning a living. Collins argues that the wealthy will always have the resources to pursue the next level of education required to receive the best jobs. However, large segments of the population are unlikely to have those resources, and they are likely to be left behind.

The functionalist and neo-functionalist perspectives that the purpose of education is to make individuals similar, and to accept the values system of the United States supports the truth claims. The idea of developing a class that can be used online for several years by many different instructors is a profit-making dream. Online education has the potential to be a highly controlled structure where all class materials and lessons can be monitored, and easily regulated. One scenario that could easily find its way into higher education is for online institutions to pay fees to expert instructors to develop courses that can be used by part time instructors. In this way, consistent thematic education could be created because only the course developers

and the online institutions would need to approve course content. This scenario is not so far fetched. According to Wirt (2000), part-time and adjunct faculty rates are on the rise all over the nation. It would be easier to control a virtual staff that has no real solidarity or connection other than the fact that they are employed by the same institution.

It can also be argued that Bourdieu's (1973) concept of cultural capital, Freire's (1997) description of the banking model, and Girioux's (1983) notion of a hidden curriculum also support selected aspects of the truth claims. In the end however, it seems clear that online institutions seem to fall in the neo-functionalist camp when it comes to the purpose of education. The information obtained from their websites usually deals with the need to have a degree in order to get a job, as well as the idea of being similar to other successful individuals. There is no discussion of individuality, or of finding oneself, and certainly no discussion of becoming an independent, free thinker. To be fair, many traditional schools also do not advertise that they promote freethinking and independent lifestyles. However, it seems that the overall goal for the online institutions is to commodify education in order to increase their numbers of students.

It seems that Cuban's (1986) assessment of what has happened to other technologies introduced to the education system likely to occur to online education. Similarly, if Feenberg's (1999) experience in California is similar to the experience in other states and higher education institutions, many schools are making enormous investments in

online education. In the end, however, the research currently available does not provide enough support to argue conclusively either for or against online education or many of the truth claims.

The Incredible Need for Additional Research

This section of the chapter will discuss whether there are inconsistencies among the truth claims, and if additional evaluative research should be completed before the continued funding of online education is justified. Suggestions for future research projects and online institution policy recommendations are provided. What is clear from the literature and the testimony is that without additional research it is difficult to know what the purpose of online education is, or how it compares to traditional education. There were many suggestions for improvement offered in the literature, but few were supported by either data or experience. It seemed that when there was support provided the data seemed to support the claims of those who were either negative about online education or undecided (Feenberg, 1999; Phipps & Merisotis, 1999; Cuban, 1986).

One of the problems that Cuban's (1986) research seemed to predict is that online institutions are repeating the errors of previous educational technologies by creating demand for an untested product. If online education is indeed doomed to repeat the failures of previous educational technologies, let us hope it does so quickly. Otherwise, large amounts of money will be wasted that could be better spent. Currently, it seems that online education is little more than a

marketing tool, used by institutions to position them as to appear to be up on current technology trends.

Research Needed

One of the first types of research needed has to do with the kind of market there is for online education. What proportion of current and potential students would take online courses? If the response were relatively small, online classes would appear to be an important niche, but not the primary commodity that is in demand. It would also be important to identify individuals that would take single classes in combination with their traditional classes, versus those that want to earn an entire degree online.

An important theme in education research is how students work with computers, and how working with computers affects retention, abstract thinking, and critical decision- making, as well as more traditional spelling, grammar, and writing skills. Although there has been some research on the effects of computers (Handa, 1990; Becker, 1986; Hellerstein, 1985; National Center of Educational Statistics, 1982), there has been little research done about the specific effects that Internet use might have on learning.

Another type of research needed has to do with the direct evaluation of traditional and online classes over time and across disciplines. While this has been done in several of the research articles in Cole's (2000) book, they did not account for many important variables. Additional variables that need to be accounted for include

the students' age, sex, race, grade point average, and technological ability. Also important would be detailed exit interviews with both students who choose the traditional method and those who choose the online delivery. One last important aspect is to have research confederates take the classes in order to record comments from students that might not be given to researchers or professors.

An evaluation of the cost of delivering an online class versus a traditional class over several years would also be important. In order determine whether online classes could be more cost efficient and still provide quality educational experiences, a number of experimental classes (ranging in size to three hundred students) should be attempted. It would be critical, for example, to determine how much email an instructor would receive, and how much time it would take to correspond with students, provide the necessary technical support, update the website and website database, design and administer evaluations of the students work, determine grades, and send grades to students. Until some research is carried out systematically across several disciplines, using several different styles of teaching and diverse students, making claims that online classes can be successful will be hypothetical.

Periodic evaluations of the technical, computer, and Internet skills of students would also be extremely useful for people designing and implementing courses involving such skills. Included might be typing ability, familiarity with hardware and with a range of software applications, as well as familiarity with the Internet and search strategies.

A final issue relates to the essential difference between online interaction and direct face-to-face interaction. According to Rheingold, (1993) individuals do interact differently when they are online. Goffman's early work (1967) has been all but ignored by many researchers when dealing with online interactions. Nevertheless, it is important to study the possible consequences of a shift from one form of interaction to the other. It is also important to determine if online interaction rituals are likely to present problems, or whether they will simply be different variations of the interaction rituals that have been identified.

Policy Recommendations

The reason that the report of the Web Based Education Commission (2001) requested more research on online education was to assist schools and government agencies in the distribution of millions of dollars for online higher education programs. This was a clear acknowledgement by the Commission that not enough or known about online education. The Commission was not created to find out whether or not the United States government should support online education. It was clear that the decision had already been made that online education should be a priority for the United States. Rather, the hearings were held in order to discover how best to implement an Internet based education system, so that students can have a quality education, and that professors feel they have a say in the creation of the education process. Still, the report of the Commission was lacking several policy recommendations that

are badly needed if a significant component of online education is going to be in the future of higher education.

The first policy recommendation is to consult instructors about how to create online courses and programs and involve them in the process. There is little doubt that instructors are important elements in the process by which technologies are adapted. Instructors need quality training, access to competent equipment, fast networks, and quality application software for web-related uses. Instructors also need to be consulted as to manageable class sizes, how classes can successfully be delivered, and the additional logistical support that is needed in order for online classes to be run smoothly. Corporate America can certainly be a consultant in the process, but it is important that corporate influences stay out of the classroom, school administrations, and boardrooms as well. When products become commodified, they become meaningless, and bear little resemblance to their original form or purpose. When education's major concern is making a profit, the operations of the institution and the experience for the students can be seriously jeopardized.

The last suggestion for government education policy is personal. Scrap the idea of offering degrees via the Internet in favor of hybrid classes where the technology is supplied by the schools, not the students. Most schools will not like this idea, but is it not expensive enough for a student to pay high tuition prices and have to also pay for a computer and Internet access in order to receive an education that may be second rate. Another reason is that if a school starts to invest

heavily in online education, they will be still be caught in a Pandora's box of never ending expenses based on computer hardware and software upgrades, infrastructure upgrades, and staff training. These hardware expenses will exceed the expenses of having computers accessible to students on campus. Based on United States higher education history, schools are usually slow to keep up with the latest technology. If they try to keep up with the latest Internet technology, budgets disappear when the latest Internet technology was the latest flop, and thousands of dollars of expensive hardware are worthless. With personal computer technology, if a school buys powerful enough machines in the beginning, the computers will be able to keep up with the software for several years.

Another important recommendation is to recognize that social interaction is an important part of the educational experience. Collins (1979) argues that the main appeal of universities for many students was not the training offered but the social experience of attending school. This is why sporting programs have been a major help in the popularity of a school. At the same time, fraternities, sororities, and other social clubs "helped to develop the college traditions of drinking, parties, parades, dances, and school spirit" (Collins, 1979, p. 124). Collins continues to argument that football rather than science was the salvation of the United States higher education system. With social problems on the rise in the United States, and a rise of individuals not feeling connected with this country, maybe the answer is more social interaction, not less.

Other Important Issues in Online Education

How secure university websites are is an important issue in online education. Most of the schools reviewed in this dissertation did not have secure websites. With students having to submit large amounts of personal information, (e.g., background data, banking information, class homework), it is important to have a virus-free and hacker-free web presence. Student information needs to be protected from other students, as well as from corporations, and others trying to obtain information, even if it is just for marketing purposes. Similarly, failsafe programs need to be implemented in case a server goes down, so there is no down time for the students. If Microsoft's site can be brought down by traffic and crackers, a college site can too.

Another issue that needs to be addressed is plagiarism. How can online institutions make sure that a student is not having someone else do the course work? What if someone takes classes for other students, or sets up online sites, charging students to do their homework? Websites with homework, term papers, quizzes, lecture notes, and final exams already exist. A person could take a test, write a paper, or participate in an online chat for a student and it would be difficult to tell it is taking place. Similarly, students could sign up for courses at one institution in order to sell that course information to another school. Thus, instead of an online institution creating its own course materials, it could pay a student (or employee) to obtain class materials from another online institution. It would be relatively simple to make the necessary modifications to a course so it would fit

the online institution's student body, curriculum, or homework demands. If music, film, books, and art are illegally downloaded by millions of Internet users everyday, what is to stop the illegal downloading of textbooks, class notes, research papers, and class materials? None of the online institutions reviewed currently have a system in place to account for these real threats.

The failure of the dot-com industry should also be viewed as a possible indication of how successful online institutions will be. According to Lisa Baertlein (2001), the Webvan Group Inc. raised a billion dollars to build a grocery delivery company and promised it would revolutionize that business. It went bankrupt only a few years after obtaining the investment. According to Laura Lorek (2001), since the beginning of 2001, twenty-five business-to-consumer Internet companies have closed, and 25% of those that have remained open have filed for Chapter 11 bankruptcy protection.

Many of the problems attributed to the failed dot-coms are related to the overhead costs of technology, computers, and website maintenance, thought at first to be cheaper than traditional retail space. For example, Webvan sales were $72 million but its net loss ballooned to $217 million (Baertlein, 2001). Similar companies (like Amazon.com) spend millions a month for every million in sales. Mismanagement, equipment costs, website maintenance, and lack of public interest have led to the closing of hundreds of corporate websites in the last two years. Not being able to make a profit from online sales is the problem that is contributing to the dive in technology stocks. Perhaps the

overestimation of the marketability of the Internet, the massive monetary investments, and the subsequent plunge into the abyss are important lessons to be learned about the potential for online education.

Finally, an important issue is the degree to which the advent of online schools means the elimination of tenure track positions and full time faculty. Certainly, not many individuals anticipate the total disappearance of all institutions of higher education in the near future. However, if online courses become "cookie cutter" versions that can be purchased off the virtual shelves of Amazon.com then how valid would they be according to government agencies, accrediting organizations, the public, or corporations.

Closing Comments

Can online education be used as a tool to help teachers and students? Absolutely! Will online education be the solution to all of the problems in education? Probably not. Were the truth claims made by the online institutions an exaggeration of the truth? Maybe, maybe not. It is clear that some of the truth claims do not have support from other sources. However, answering whether the truth claims were exaggerations of the truth was not the purpose of this dissertation. This dissertation also was not an attempt to discount the potential of online education. Instead, it was an attempt to describe what online education is at this early stage in its development.

It is clear that there is not an unambiguous and universal

understanding, of online education. There is no single plan (or even small set of plans) for online education or agreements about the potential of online education. It seems that even while no one knows whether it will work, millions of dollars are being invested, just in case it does. It may also be that online education is being emphasized for purposes of marketing rather than enhancing education. Even when online institutions create truth claims that are broadly seen as worthwhile (e.g., to help minorities have more access to higher education), the truth claims appear to be empty promises.

From the research, it became apparent that corporate involvement in online institutions was extensive. Whether schools are becoming commodified vessels for corporate America cannot be answered by this dissertation. However, it is clear that several truth claims with little relation to reality are consistently being presented by online institutions.

One of the testimonies that seemed to address the confusion and frustration of online education is from Dion Burn, one of the few non-corporate, non-education, "average people" that testified before the Web Based Education Commission (2001). It summarizes most of the undecided and anti-online education sentiment.

> I am a parent. Not a scholar, not a lobbyist, not a legislator, not a software designer or a salesman or a dot-com. I don't come armed with statistics, colorful presentations or money. I don't have an agenda to increase my company's profits and profile or my party's cachet. In fact, I don't care the least bit about any of those things. And neither should you. What you should care about-and what I do care about-is my children and that they are not exploited for any of those other agendas. My children are not future workers to be pegged into corporate cubes and assembly lines. They are what they are, always have been, and always will

> be: human beings. The only agenda is helping them become sensitive, considerate, critical-thinking, ever-growing, responsible people. There are no products, no technological marvels, that can realize that agenda, because those things can't care. (p. 1)

It is the judgment of this dissertation that unless the present situation is altered, it appears online education will probably suffer the same fate that other educational technologies have experienced historically. After reviewing the available literature, the proponents of online education seem to be repeating the historical errors of past educational technologies, making similar claims, and spending significant percentages of college and university budgets, while still unsure of what online education is (or might be), or how to properly implement it.

Appendix A

University Truth Claims: The Complete List Sorted by Institution

University Truth Claims: The Complete List Sorted By Institution

Stanford Truth Claims Themes

1) Need for student flexibility, the need to have flexible schedules
2) There is a need for students to be prepared for a global market
3) Online education is as good or better than traditional education
4) Online students will have the added benefit of working at his or her own pace and when it is most convenient to study a body of knowledge, lesson, or problem set.
5) Due to increasingly specialized and rapidly changing job functions, individuals will increasingly be hired or promoted into jobs for which their knowledge profile is incomplete. Online education can address this problem
6) Increased financial pressure from governments and school boards, students
7) Shortage of teachers helps to deliver education to areas that need teachers; online education can solve this.
8) Low college rates for certain minorities. Online education can improve this
9) Non native English speakers requiring second language support can be benefit from online education
10) Can deliver the latest job training techniques and skills
11) Population growth and overcrowding costly to build new schools
12) Help drop out rates
13) Increasing pressure to lower education prices
14) Virtual classroom will liberate both the teacher and the learner from geographical and temporal constraints
15) Student are more willing to ask questions
16) Gives a student a chance to think about intelligent questions before asking them.
17) Increased occupational and demographic diversity are rendering traditional education obsolete
18) Formal education is becoming a life long endeavor for many professionals
19) Education will be increasingly important for occupational success
20) Increased quality of the educational experience
21) Increased course access for students
22) Online education has lower costs

Virginia Tech Truth Claims

1) One of the principle advantages of distance learning environments is the amount of flexibility that they afford
2) Depending on the course and technologies used, a learner can access their course without leaving work, home, or traveling to a distant campus
3) Students who live on or near a campus find that they can schedule around time conflicts or courses that have filled by taking an on-line course

4) People can take courses anywhere in the world
5) As good as other forms of education
6) Cheaper
7) Distance learning is the new way to learn and earn college credits
8) Faculty believe web based courses do a better job of giving students access to information
9) Online education is an interactive education; multimedia tools
10) Classes are self-paced
11) Helps people take classes and still maintain their busy work schedule

Penn State Truth Claims

1) The flexibility of challenging, often self-paced, learning anytime, anywhere
2) The competitive advantage that helps build security in an ever-changing global business environment
3) Opportunities for career advancement through professional development courses and degree programs
4) Outstanding learner support resources including advising, access to the University libraries, and technical support
5) Adult learners are looking for convenient educational opportunities that can help them advance professionally and remain competitive in today's ever-changing marketplace
6) Most are offered on a semester basis with students and faculty interacting together in a group
7) The World Campus responds to dramatic changes in how Americans live and work a generation into the Information Revolution
8) Technology has greatly altered the nature of work in our society, making continuous learning a practical necessity for both individuals and employers
9) Increasing student flexibility regarding the time, place, and pace of study and creating a highly interactive, learner-centered environment that is marked by increased access to faculty expertise and increased access to information resources
10) Respond to student need for specialized degree and certificate programs at the national and international levels, reinforcing the University's leadership in key disciplines
11) Facilitate new relationships between the University and employers for continuing education of the workforce statewide, nationally, and internationally
12) Increase the likelihood that Pennsylvania's increasingly diverse school population will succeed in higher education, especially in the sciences, by extending Penn State's outreach programs to high schools
13) Increasingly, young people entering the workforce will be women, minorities, and the children of recent immigrants
14) The marketplace and manufacturing environment are increasingly international

15) Changes in workplace technology and processes require ongoing education and training throughout one's career. Just-in-time manufacturing increases the demand for just-in-time training and education
16) Increasingly, human resources are viewed as capital investments, as corporations feel the need to "outlearn the competition
17) The U.S. military has recognized the potential for using technology to balance reduced training funds against an increased need for training by creating the U.S. Army Satellite Education Network, with 58 downlink sites serving 85,000 students daily
18) Distance education will allow higher quality international education to take place at a lower cost, making international educational partnerships more attractive and feasible
19) The average age of our students will be higher, and the percentage of nontraditional students will increase
20) Both students and faculty will have greater electronic access to information resources, moving academic programs at all levels toward a more inquiry-oriented, resource-based approach to the curriculum; the faculty role will be seen increasingly as one of facilitating learning by helping learners focus on the analysis, synthesis, and application of information
21) Distance education will provide unparalleled opportunities for citizen access to the intellectual wealth of the university and thus has the potential to democratize education in unprecedented ways
22) Learner-centered approaches to instruction have the potential to improve higher education, and distance education can serve as a catalyst toward that end. In this case, significant institutional commitment to distance education represents a commitment to changing the traditional teaching/learning environment of higher education. Making this kind of change also would require altering policy in order to foster attitudinal and behavioral changes among faculty.
23) We no longer believe that face-to-face instruction is inherently better or more effective than distance education. We have come to understand that distance education encompasses a wide-variety of means and methods and cannot be thought of as being synonymous with telecommunications or electronic media or any other single medium.

Western Governors Truth Claims

1) Traditional education costs are high
2) It is common knowledge that demand for higher education is growing—growing so rapidly that there is little chance that states budgets, private endowments and corporate support for education and training can keep pace. Through WGU, education providers can expand access to higher education while keeping their costs for that expansion in check
3) Students can learn from teachers located all over the world

4) There are many ways and places to learn, and not all of them include sitting in (physically or virtually!) college classrooms
5) Easier to find classes that are offered to fit your schedule
6) Traditional education cannot keep pace with the rapidly changing needs of society and industry
7) Mentor will work closely with the student throughout the student's pursuit of a degree
8) Don't have to spend time away from work
9) Have access to the global job market
10) Work at your own pace
11) Flexibility
12) Not based on traditional education methods
13) Classes are competency based
14) May not live near a campus
15) Not everyone wants to go to college

United State Open Truth Claims

1) Provide high quality education without the demands of a regular class schedule
2) Flexibility in the class schedule. A student can take classes at their own pace
3) Individual support from your own personal associate faculty member
4) Need to be prepared to compete in the global market
5) Cheaper costs than traditional classes
6) Seek to reduce all major barriers to higher education and work to help students from every background and level of preparation
7) Reach students wherever they are
8) Students can fit school to their schedules
9) On work-related courses, your assignments will usually ask you to relate course themes to your job or other real-life applications
10) You will receive individual support from your personal associate faculty member. They stay with you throughout your course and provide the guidance, one-on-one feedback, and encouragement to help you succeed. And, through online conferencing you'll enjoy peer support and interaction with fellow students
11) Open as to people: We seek to reduce all major barriers to higher education and work to accommodate students from every background and level of preparation, and play a leading role in meeting lifelong learning needs
12) Open as to places: We reach students wherever they live or work irrespective of whether they remain in one location or are mobile during their study
13) Open as to methods: We develop and use innovative distance teaching methods, including new technology to improve learning effectiveness and reach students wherever they are
14) Open as to ideas: We have created a vibrant academic community dedicated to the advancement and sharing of knowledge around the globe

15) Open as to the world: We are opening up an international academic community to students and faculty
16) Open as to time: Students may study whenever it fits their schedule
17) A student can take a class from anywhere in the world
18) The quality of education is as good or better than traditional education. We work with students on a one-on-one basis
19) Prior knowledge can help a student obtain partial credit towards a degree by taking competency tests based on life experiences

Phoenix Truth Claims

1) Faster return on investment
2) Businesses have been demanding a new educational paradigm: one that can make a current education accessible to working professionals on an ongoing basis
3) Among the first colleges to offer degrees in Technology Management, Information Technology and E-Business
4) Teach the latest technology techniques
5) You can earn your college degree while maintaining your career and personal life
6) Best of all, our concentrated program enables you to complete your degree much sooner than you could at other universities
7) More working professionals earn their college degree from University of Phoenix than any other university in the U.S.
8) No commuting. No lines. No wasted effort. You just click into class and start learning
9) Phoenix Online assigns an experienced enrollment advisor to work closely with you to streamline the process of returning to school
10) Distance learners perform as well or better than the on campus counterparts
11) Employers put greater value on education now
12) Most up-to-date and relevant curriculums available
13) Doesn't waste students time or employer's money
14) Need education for working professional on an ongoing basis
15) Intellectual capital not physical capital is the new currency for success
16) Credits for prior life experience
17) Unparalleled convenience and flexibility in the pursuit of your education
18) Online education is less money than traditional education

Appendix B

Rhetorical Analysis Output From Diction 5.0

Rhetorical Analysis Output From Diction 5.0

The doc 1, doc 2, etc. are the web page documents that were analyzed from the online institution websites. If a document contained information that would not contain rhetorical statements about what online education is (e.g., a web page with tuition prices) that particular web page document was not analyzed.

Stanford	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10	doc 11	doc 12	Doc 13	Doc 14
Calculated Variables														
Insistence	5.13		1.12	4.19		1.94	1.51		2.55	1.18	6.07			
Embellishment	-1.19			-1.06			-0.96		-1.19		-1.03			
Variety				-2.9			1.17	4.42	-2.48		-4.25	2.13		2.13
Complexity	7.34	2.67	2.17		3.34	2.61	3.02	4.55		2.47		2.16	2.67	2.16
Master Variables														
Activity			low	low				low						
Optimism									high				high		high
Certainty	low			low					low				low		low
Realism	low	low	low		low	low	low	low	low	low	low	low	low	low	low
Commonality	high	high	high										high	high	high

Figure 2: Stanford Distance Learning Website Documents Diction 5.0 Output

Virginia Tech	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10	doc 11
Calculated Variables											
Insistence	-1.09						3.6		1.93	3.38	
Embellishment		-1.24	-1.08	-0.96	-1.18	-1.02			-1.05	-1.07	
Variety	11.56	7.52		4.5	2.49	4.99	-1.15	-8.75	2.67		
Complexity	3.36		1.45		2.58		1.96	-5.59	1.87	3.57	2.99
Master Variables											
Activity	low	low	low	low	low		low			low	low
Optimism	low										
Certainty		low		low		low		low			
Realism	low	low	low				low	low	low		low
Commonality	high		high		high	low	high		high	high	

Figure 3: Virginia Tech Distance Learning Website Documents Diction 5.0 Output

Penn State	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10
Calculated Variables										
Insistence	1.03	1.28		1.63	3.19	2.26	4.31	1.16	1.4	
Embellishment						-1.21		-1.17		
Variety					-1.18	2.43	4.42	-1.33		3.29
Complexity		3.24	2.42	4.72	5.41	4.03	4.97		3.03	2.11
Master Variables										
Activity		low		low	low		low	low	low	
Optimism			high	high	high				high	
Certainty		high			high	high		low	high	low
Realism	low			low	low		low			
Commonality				high	high		high		high	high

Figure 4: Penn State Distance Learning Website Documents Diction 5.0 Output

Western Governors	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10	doc 11	doc 12	doc 13	doc 14	doc 15	doc 16
Calculated Variables																
Insistence		2.94		2					1.28				1.17	5.38	2	
Embellishment			-1.14						-1.15		9.22		-1.05	-1.05		
Variety	5.31	1.18	1.29		1.43	high	4.39	-2.22	2.29	4.07	4.42	4.39		-3.36		6.68
Complexity	4.78	3.53	2.3	2.65	3.01		3.18		2.42	2.12	2.08	3.18	1.44		2.65	
Master Variables																
Activity	low	low		low	low			low			low		low		low	
Optimism		high		high							high				high	
Certainty	low			high	low	low	low		low	low	low	low			high	low
Realism	low	low				low	low					low		low		low
Commonality	high			high	high		low	high	low		high	low	high		high	

Figure 5: Western Governors Distance Learning Website Documents Diction 5.0 Output

United States Open	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10
Calculated Variables										
Insistence		6.61	1.39	3.51	3.39					
Embellishment			-1.01	-1.04			1.55	-1.17	-0.98	
Variety	3.68			-2.99	-1.34		1.69		1.37	1.14
Complexity	2.84	2.55	2.29	2.58	2.31		1.35	1.84	2.79	2.61
Master Variables										
Activity	low		low			low	low		low	
Optimism								high		high
Certainty	low	high		high	high	low	low	low		
Realism	low	low	low	low	low		low	low	low	low
Commonality	high		high						high	

Figure 6: United States Open Distance Learning Website Documents Diction 5.0 Output

Phoenix	doc 1	doc 2	doc 3	doc 4	doc 5	doc 6	doc 7	doc 8	doc 9	doc 10	doc 11	doc 12
Calculated Variables												
Insistence	1.5		17.69			1.42	1.84	-1.18	6.39	1.9		
Embellishment	-1.18	-1.19				-1.1	-1.16	-1.19		-1		
Variety		5.36	-8.31	4.64			2.16	12.04	-1.23		3.31	4.8
Complexity	1.93		6.92	3.13	2.46		2.34	7.3	2.8		3.39	1.53
Master Variables												
Activity	low			low	low			low	low			
Optimism					high			high			high	high
Certainty		low	high	low				low	high		low	low
Realism		low	low	low	low			low	low			
Commonality					high				high		high	

Figure 7: Phoenix Distance Learning Website Documents Diction 5.0 Output

Pro Distance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Calculated Variables																				
Insistence		1						3.11					2.39	1.18	1.4		1.75			
Embellishment			-1.1					-1.3											-1	
Variety	1.04	1.45	3.78		2.61	2.84	4.35	2.12	3.11		4.24	1.98				1.21	-1.3	2.3	1.97	
Complexity	1.35	1.72		1.74	2.32		3.01		3.61	1.74	1.88	2.18	2.89	3.98	2.4	2.35	3.89	3.9	3.09	
Master Variables																				
Activity			low		low				low	low	high		low		low		low		low	low
Optimism										high		high			high	high	high			high
Certainty	low		low		low	low	low	low	low								high		low	
Realism		low		low	low		low	low	low	low			low	low	low	low		low		
Commonality							high	high				high					high	high		

Figure 8: WEC Pro Distance Learning Testimony Diction 5.0 Output

Undecided	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Calculated Variables																		
Insistence			-1.2		2.3		2.5		2.6	1.4		3.8		3.2			3.9	
Embellishment			1.3		-1									-1			-1.1	
Variety	4.3		9.3		2.3	4		2		2	1.6			1.5	4.4	3.3		2.8
Complexity	3.8	3.5	1.9	2.5	2.5	2.7	2.9	1.6	3.1	3.5	2.2			4.4	2.9	3.1	4.3	2.6
Master Variables																		
Activity	low		low	low	low	low	low		low		low			low				
Optimism	high	high	high	high		high			high		high							
Certainty	low		low		low	low		low		low	low				low	low	high	low
Realism	low	low	low		low	low		low		low	low	low		low		low	low	
Commonality	high		high		high										high	low		

Figure 9: WEC Neutral Distance Learning Testimony Diction 5.0 Output

Anti Online	1	2	3	4	5	6	7	8	9	10
Calculated Variables										
Insistence		7.9			2.66		3.31			
Embellishment										
Variety	3.45	3.91		2.9		2.9	2.14		6.69	2.04
Complexity	2.65				2.26	1.88	2.2		3.9	2.97
Master Variables										
Activity			low			low			low	low
Optimism		high								high
Certainty	low	high		low		low	low		low	
Realism	high	low			low		low		low	low
Commonality	high					high				high

Figure 10: WEC Anti Distance Learning Testimony Diction 5.0 Output

Appendic C

WEC Testimony

WEC (WEB Based Education Commission) Member Testimony	Pro Distance Ed	Against Distance Ed	Neutral or Undecided
On-line Learning, Training and Research Association	X		
National Job Corps Association, Inc.	X		
The Florida High School	X		
Rob Lippincott	X		
EduPoint, Inc.	X		
Public Broadcasting Service	X		
Education Turnkey Systems	X		
Madeline Gesslein	X		
Teachers College, Columbia University		X	
Kelly Services, Inc.	X		
Kelly Services, Inc.	X		
Global University System	X		
National Council on Disability	X		
Francis W. James		X	
World Association for Online Education (WAOE)	X		
U.S. Department of Education	X		
Ilisgavik College			X
Dr. D. Eckert	X		
Alyeska Central School		X	
Software & Information Industry Association	X		

National Network to End Domestic Violence	X		
Monroe County Women's Disability Network	X		
TECH CORPS	X		
Convergence Mediagroup	X		
IBM Global Education Industry	X		
IBM Corporation Institute for Electronic Government	X		
America's Public Television Stations (APTS)	X		
Arizona Learning Technology Partnership	X		
International Center for Advanced Internet Research	X		
AMERICA Technology Innovation Challenge Grant Consortium	X		
Alliance for Childhood		X	
John Wiley & Sons, Inc.	X		
Apple Computer, Inc.	X		
United Negro College Fund			X
American Foundation for the Blind	X		
American Foundation for the Blind	X		
DrPhysics.com			X
Videodiscovery		X	
JASON Foundation for Education	X		
Dow, Lohnes & Albertson, pllc	X		
American Library Association	X		
Ohio Learning Network	X		

Sun Microsystems, Inc.	X	
Classroom Connect	X	
PLATO Learning, Inc.		X
IBM	X	
IBM	X	
IBM	X	
IBM	X	
IBM	X	
American Library Association, American Association of Law Libraries, Association of Research Libraries, Medical Library Association, Special Libraries Association		X
Higher Education Alliance for Information Technology	X	
International Center for Advanced Internet Research	X	
Cornell University	X	
Maryland Virtual High School	X	
Scientific Learning	X	
TaskStream, LLC	X	
American Association of Museums	X	
Idaho State Board of Education		X
Sousan Arafeh, Ph.D.		X
Educational Support Systems	X	
Nebraska Educational Telecommunications / University of Nebraska -- Lincoln		X
FreeEdu.com	X	

Instructional Telecommunications Council	X		
NetSchools Corporation	X		
National Foundation for Teaching Entrepreneurship (NFTE)	X		
Austin Independent School District	X		
American Association of Community Colleges	X		
Cheryl Bennett	X		
Markle Foundation			X
Mass Networks Education Partnership/Virtual Education Space	X		
DrPhysics.com	X		
Emily H. Vickery		X	
University of Wisconsin System	X		
The Hartford Gunn Institute	X		
Nebraska Information Network	X		
class.com	X		
class.com	X		
Metropolitan College, Boston University			X
Dr. John H. Huth	X		
National Telecommunications and Information Administration, U.S. Department of Commerce	X		
Charles Grammick	X		
FamiliarTales, Inc	X		
Regents College	X		

George Mason University	X		
Dion Burn		X	
Learning Anytime Anywhere Partnerships (LAAP), U.S. Department of Education	X		
Brigham Young University	X		
Allegany Hope	X		
Allegany Hope	X		
Edward S. Lowry	X		
Nancy Willard			X
MentorMail of America	X		
Global Schoolhouse at Lightspan.com	X		
Jon M. Clausen			X
Ohio State University, AND Ohio Academic Resources Network	X		
Arthur Melmed	X		
Charles F. Lindgren	X		
Corporate Vision Consulting	X		
Kentucky Virtual University	X		
Innovative Technology Center, University of Tennessee	X		
Kindred-souls.org, Inc	X		
Walter Carlson, Jr.	X		
SAS inSchool			X
Douglas A. Levin	X		
Consortium for School Networking	X		
Shirish Netke, Chairman, SchoolTone Alliance	X		
bigchalk.com	X		

U.S. Department of Justice, Civil Rights Division	X	
Trace Research and Development Center, University of Wisconsin	X	
Mary Halnon	X	
Margo Nanny - Tech Access Grant	X	
Johns Hopkins University Center for Technology in Education	X	
American Federation of Teachers		X
Jacqueline E. Woods	X	
WHYY Education Connection Project	X	
Western Cooperative for Educational Telecommunications	X	
Thomas Barnwell & Joel Jackson, Georgia Tech	X	
Utah System of Higher Education	X	
the Nasdaq Stock Market, Inc.	X	
Frank B. Withrow	X	
Electronic Learning Communities, Georgia Institute of Technology	X	
Association of Tech Act Projects	X	
Verizon	X	
National Association for College Admission Counseling	X	
Career College Association	X	
CXO Media, Inc	X	
National Council for Accreditation of Teacher Education	X	
Distance Education and Training Council	X	

Richard Kahlenberg	X	
Amnim, center for scientific visualization	X	
SRI International	X	
National Association of the Deaf	X	
Karl Pajo	X	
Franklin University	X	
Virtual Learn, Inc.	X	
ASCD	X	
ThinkWave, Inc.	X	
Consumer Bankers Association	X	
Margaret Riel		X
Utah Education Network	X	
Gerald W. Meisner	X	
ASCD	X	
Poway Unified School District	X	
Poway Unified School District	X	
Barbara Slater Stern		X
Professor Marshall S. Smith	X	
Jim Woolen	X	
ASCD	X	
PowerSchool, Inc.	X	
The Association of Educational Publishers (EdPress)	X	
Broward Community College	X	

School of Health Management, division of Kirksville College of Osteopathic Medicine	X			
Association of American Publishers	X			
American Association of Colleges for Teacher Education (AACTE)	X			
Educational Approval Board (Wisconsin)	X			
Roger Kaufman and Associates	X			
Jon Clausen	X			
Mark Schlager	X			
Academy for Educational Development (AED)	X			
Alan Lesgold				X
International Society for Technolgy in Education and National School Boards Association	X			
LINCT Coalition (Learning and Information Networking for Community via Technology	X			
BlackCollege.com	X			
Central High School, Little Rock School District	X			
Donna Baumbach - University of Central Florida	X			
The Teaching, Learning, and Technology Group	X			
Texas Council for the Humanities	X			
Roger Kaufman and Associates		X		
Bonnie Bracey	X			
Gina Boltz	X			

Georgia Tech Research Institute	X		
Portland Community College	X		
Janet Price	X		
the CPB/WGBH National Center for Accessible Media (NCAM)	X		
Hispanic Association of Colleges and Universitites (HACU)	X		
MGT of America, Inc.	X		
Jeff LeMieux	X		
Marilyn M. Pickens			X
Theodore C. Kariotis	X		
Lightspan, Inc.	X		
Allen Glenn	X		
Integrated Technology Education Group, LLC	X		
Robert T. Carter	X		
Robert T. Carter	X		
Macromedia	X		
Macromedia/The Fielding Institute	X		
Poway Unified School District	X		
National Education Association	X		
Florida Gulf Coast University	X		
National Association of Student Financial Aid Administrators	X		
Leonard Shedletsky		X	

Council of Organizational Representatives on National Issues Concerning Deaf and Hard of Hearing Persons	X		
Eastern Catholic Alliance of Schools for Excellence	X		
Georgia Youth Science & Technology Centers, Inc.	X		
Georgia Institute of Technology Center for Distance Learning	X		
Dr. Bruce O. Solheim	X		
Connecticut Distance Learning Consortium	X		
Office of Electronic Information Dissemination Services, US Government Printing Office	X		
Kyle L. Peck	X		
eLearners.com Inc.	X		
The AIM Lab, University of Illinois	X		
Randy Bennett	X		
Educational Software Institute	X		
SMARTHINKING	X		
A Better Learning Environment, Company	X		
Sarah S. Pearson	X		
English Department, Rider University		X	
MENC:The National Association for Music Education	X		
Totals	181(86.6%)	10 (4.8%)	18 (8.6%)

Figure 11: WEC Testimony Total List

Appendix D

Web Based Commission Policy Issues

Web Based Commission Policy Issues

The Web Based Education Commission focused on specific attention on the following set of policy issues to better understand the impact the World Wide Web can have on transforming and improving learning and achievement:

1. Technology Trends

What technology trends have the greatest potential for influencing education? How might developments and innovations in hardware, software, and networking offer new resources that support web-based education?

2. Pedagogy

What are the content and teaching strategies that best utilize the Internet for learning? What curriculum adaptations are necessary to take full advantage of web-based content and learning strategies? What measurements of effectiveness are required to assure that new web-based learning approaches lead to significant achievement?

3. Access and Equity

What is the potential of the Internet for equalizing access to learning opportunity, particularly among low-income students and adults, disabled learners, under-skilled workers, rural populations? What are the characteristics that should define full access and equity in web-enabled learning environments? What are the current and potential barriers to access (including barriers to appropriate online content) and how might they be resolved?

4. Technology Costs

What are the true costs of maximizing the Internet for learning? Are there tradeoffs in web-based education that lead to savings in other areas (e.g., textbooks, staffing models, time requirements, etc.)? Who (or what entities) are responsible for absorbing these costs, and at what percentage? Are there new funding schemes to consider?

5. Teacher Training and Support

What skills and knowledge do teachers need to use the web most effectively in teaching? What preparation do teachers require before they enter the classroom? How can teachers be supported to enable them to grow with the profession? What are effective models for teacher preparation, teacher continuing education, and support?

6. Regulatory Barriers

What are the most significant regulatory issues preventing full deployment of web-based learning strategies, particularly at the K-12 and postsecondary education levels? What changes do you propose?

7. Standards and Assessment
How should we evaluate the success of new web-based approaches? How must assessment change in response to new web-based content and learning strategies? Do current standards and assessment approaches adequately reflect the skills students' need in the Information Age? Are new testing and assessment tools necessary? If so, how will they keep pace with innovations in content design and development? How will definitions of content quality conceived in a "narrow-band" world have to be adjusted for "broad-band" technologies?

8. Accreditation and Certification
What changes in accreditation and certification are necessary in a distributed learning environment? How do current policies impact web-based learning opportunities? Are new players, consortia, and/or policies necessary?

9. Intellectual Property Protection
How do current copyright laws affect online education? Are changes to current law necessary to accommodate web-based content and learning strategies? What regulations and/or incentives are needed to assure effective and appropriate use of online content?

10. Online Privacy, Protection, and Censorship
How must the issue of online privacy be addressed? How can learners be protected from inappropriate intrusions into online learning materials and environments without adversely impacting development and delivery (e.g., advertising in the schools)? Is some censorship of content appropriate and, if so, who should make these decisions?

11. New Learning Institutions
How is the web giving rise to new kinds of learning institutions, or remaking existing ones, including corporate and other for-profit institutions, home schooling, virtual high schools and universities, etc.?

12. Research and Development
What is the research and development requirement to build effective models for web-based teaching and learning at the individual and systemic levels? What data is necessary to better understand how best to deploy the Internet for learning? Who (or what entities) should be responsible for collecting such data?

13. The Marketplace
What are the most promising business models in the area of web-based content development and delivery? What are key ingredients within these models that make for success? What are the existing pitfalls affecting the growth of the market? What is the potential of the international market for web-based educational products and services? Are there specific policy approaches necessary to assure greater stability and growth in the market?

Appendix E

Important Website

Important Web Sites

Angus Reid Research Group. http://www.angusreid.com/

Barnes and Noble University.
http://www.barnesandnobleuniversity.com/bnu/?nhid=bn&userid=1L1UEGGHF9

Black College.com. http://www.blackcollege.com

Bureau of Labor Statistics. http://www.bls.gov

CBS Market Watch.
http://cbs.marketwatch.com/news/default.asp?siteid=mktw

Census Bureau Statistics. http://www.census.gov

The College Board. http://collegeboard.org

The Computer Industry Almanac. http://www.c-i-a.com/

Cyber Dialogue Research. http://www.cyberdialogue.com/
Duke University. http://www.duke.edu/

Eastern Michigan University. http://www.emich.edu/

E-College.com. http://www.ecollege.com

E-Marketer.com. http://www.emarketer.com/

Emind. http://www.emind.com

Et-Forecasts Research Company. http://www.etforecasts.com/

Florida State University. http://www.fsu.edu/

Forrester Research. http://www.forrester.com/

Free Education Network. http://www.free-ed.net

Greenfield Online Research. http://www.greenfieldcentral.com/

The Information Systems Research. http://www.coba.unt.edu/isrc/

Jupiter Communications Research.http://jup.com/home.jsp

The Kiplinger Washington Editors. http://www.kiplinger.com/

Media Metrix Research Company. http://www.mediametrix.com/landing.jsp

Mediamark Research Inc. http://www.mediamark.com/

Morgan Stanley Dean Witter Research. http://www.msdw.com/

National Center for Education Statistics http://nces.ed.gov/

National Education Association. http://www.nea.org

Nielsen Net Ratings. http://www.netratings.com/

Online Learning Network. Onlinelearning.net

Parks Associates Research Company. http://www.parksassociates.com/

Penn State World Campus. http://www.worldcampus.psu.edu

Pew Internet and American Life Project. http://www.pewinternet.org/

Rochester Institute of Technology. http://www.rit.edu/index1.shtml

Small Business Research Portal. http://smallbusiness.cjb.net/

Stanford Online. http://stanford-online.stanford.edu/

Strategis Group Research. http://www.strategisgroup.com/

United States Open University. http://www.open.edu/

University College of the Fraser Valley. http://www.ucfv.bc.ca/

University of Illinois. http://www.uillinois.edu/

University of Michigan. http://www.umich.edu/

University of Phoenix Online. http://www.petersons.com

University of Virginia Tech Online. http://www.iddl.vt.edu

Virtual Learn Inc. http://www.virtuallearn.com/

Walden Institute. http://www.waldeninstitute.com/

Western Governors University. http://www.wgu.edu

Western Michigan University. http://www.wmich.edu

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