

**The VIRTUAL UNIVERSITY:
IS IT A PANACEA OR A PANDORA'S BOX?**

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ABSTRACT

Peter Drucker, the visionary dean of modern management experts, declared that in several decades “The big university campuses will be relics and the residential university is destined to yield to the virtual university.” Increasingly, the virtual university system is being packaged as a panacea. Could it be that the virtual university may prove to be the Pandora’s box in a society where individuals mostly lead isolated life away from parents and extended families? This study first explores the benefits of graduating from the virtual university from both an economic and convenience perspective. Then the researcher evaluates its possible detriments against concepts drawn from social psychology. The fundamental question is whether there is enough evidence that students of online education systems might somehow run the risks of “dehumanization,” endure possible setbacks due to “deficient group experiences,” and be affected by “deprivation dwarfism” in their development toward maturity.

INTRODUCTION

With the advent of the personal computer, which ushered in the Internet, there seems to be a revolution in performing both ordinary and extraordinary tasks. One area which has been lately receiving a great deal of attention is the online education. While almost all new ideas and innovations attract controversy, cybereducation has had its lion’s share of hotly debated arguments in recent years. Hardly a day passes without seeing a periodical that had published a pro or a con position article on this raging controversy (Johnstone 2001).

Peter Drucker, the visionary guru of modern management thought, predicted that in several decades “The big university campuses will be relics and the residential university is destined to yield to the virtual university.” (Macchiette and Roy 2001). At the turn of the millennium, over 1 million students were enrolled in classes and this number is anticipated to double within a couple of years. Some prestigious institutions of higher learning are hopping on the bandwagon of online education, reminiscent of a bunch of pariahs in a feeding frenzy. John Chambers (CEO of Cisco Systems), one of the guests of Lesly Stahl on “60 Minutes” (Sunday, February 18, 2001) have expressed a resounding opinion by saying that “Even Harvard, Yale, and Stanford have to change. If they do not teach online, they would not exist any more.” Is this overblown crystal ball gazing? Perhaps, but the opinion typifies the torrential optimism shared by many administrators and educators in favor of online education.

Against the backdrop of increasing numbers of traditional institutions providing online education (Gerencher 1998; Katz 1999; Jones and Pritchard 2000), the controversy has focused on the question of whether the virtual university, junior or four-year college or any kind of school is the viable alternative. Central to the debate is the criticism that institutions of higher learning are marketing education into a standardized, commodity-like product to be sold for a profit. Marchese (1998) contends that there is an abundance of niche markets to render an optimistic future for online education, while others, like Noble

(1998), offer strident objections to the high tech transformation of education.

While the debate has been raging from the economic and convenience perspectives (Abeles 1998; katz 1999; Johnstone 2001), there has been no discussion of the impact of an online education program on the student from the social psychological point of view. After all, the most important stakeholder of online education is the student. The subject of cybereducation needs to be seriously addressed not only in terms of its benefits to the education provider, but also in terms of the inherent dysfunctions of this system vis-a-vis the well-being of the students. It would be appropriate to note that the term “university” is used here in its generic term, meaning any school offering courses and diplomas. Thus, a university is a universal school in which are taught all branches of learning in the various disciplines of business, engineering, theology, medicine, law, political science, etc.

The purpose behind writing this research paper, is first to explore briefly the benefits of attending a virtual university environment from the economic and convenience standpoints. Then, this innovation of distance learning is evaluated against concepts drawn from social psychology in order to raise consciousness about possible detriments of obtaining a degree from a virtual university. The fundamental question to pose is whether there is enough evidence that the students in online education systems would be subjected to and may be harmed by the problems of “dehumanization,” from the deficiency of “group experiences,” and from “deprivation dwarfism.” Finally, recommendations for further study are presented.

BENEFITS OF ONLINE EDUCATION

Most of the economic and convenience benefits of online class are rarely disputed. Moreover, the benefits of online education are quite self-explanatory and have been well documented. Therefore, they will receive only a very cursory coverage.

The spacial or geographical attributes of online education cannot be overemphasized. Advocates of online classes point to the convenience of taking a course from anywhere in the country. Without any residency requirements, students from all over the world could enroll in courses. Linking the world through education is a noble ambition (Nadalyn 1999). Arguably, it provides a special advantage of immense importance. The world becomes one large campus through the Internet. Shrinking the world through distance learning is perhaps the main advantage of this new technology.

The temporal flexibility is another major benefit of online education. Essentially, it offers choice of time to the student. A student can study whenever he or she wants, whereas in traditional campus environment lectures are given at specific times on certain days about specific topics.

Another hallmark of online education is learning through repetition. The advantages of repetition are invaluable. While in traditional classroom a lecture is normally delivered once on a scheduled day, online education provides innumerable opportunities to the student to hear the same lecture over and over again. Repetition is obviously an unalienable benefit of online classes.

Cost (e.g., tuition, activity fees, housing, parking, etc.) of online education apparently would be lower in certain areas. For example, there will not be any activity fees or parking fees. Since a traditional classroom has usually a maximum seating capacity mainly due to comfort and fire hazard regulations, the online class could accommodate thousands and thousands of students through the Internet. Generally speaking, such a voluminous student enrollment would tend to drive the tuition costs lower. There are some exceptions, though. Some institutions opt to charge even more. For example, Duke University’s online MBA degree would cost about \$70,000.

Compared to the benefits of online education, its dysfunctions are not obvious. In the next section, the major problems inherent in online classes will be discussed. While standardizing and treating education as a commodity for profit are the downside aspect of online class, these drawbacks are mainly the

professional aspects of the problem. These problems are discussed by Noble (1998). Here the focus is on the social psychological implications of this recent innovation in education.

POSSIBLE DYSFUNCTIONS OF ONLINE EDUCATION

When a society is riding on a tidal wave of a new technology such as the virtual class, any criticism or doubts about it would be considered myopic and a clarion call for rallying the Luddites. Hanson (1998) contends that if a technology has come to indicate innovativeness, anyone failing "...to appreciate it is taken as a sure sign of belonging to the wrong side of a generational divide." One is forced to think and feel that we are all caught in the current of a great progress.

Nowadays, there is a revolution to accept almost everything about information technology, but if one keeps silent, one would be deprived of the right to speak up. Charles Heston (1999), the movie star, recently stated at the Harvard Law School Forum that there is some kind of a cultural war taking place in the United States "...a cultural war that's about to hijack your birthright to think and say what resides in your heart." The tendency is to conform without questioning. Following such a path would lead society into roiling, murky waters, that would restrict visibility of the ills of certain innovations or technologies including the virtual university.

Whereas the Internet has had a great effect on the economy, the question raised here is the impact on the student's mind, motivation, and social psychological well-being if education were to be obtained mainly from virtual institutions. Altbach (2000) echoes similar sentiments: "We need to understand all the implications of these innovations if they are to serve the interests of students and teachers – and not simply become a vehicle for profit-making corporations." Historical parallels of revolutionary innovations in technology abound. They were overblown in promise. For example, in the 1920s the radio was considered to be a great medium for education. After the hyperbola subsided, it became just another technology (Hanson 1998). Unbridled enthusiasm about an untested technology may distract us from its dysfunctions.

The March/April 2001 Course Bulletin of Learning Tree University in Irvine, California, boldly states the following promotion: "Online classes are fun, convenient in-depth and the outcomes are the same as you would expect from our accredited award winning campus-based courses". This might very well be true for the benefits of knowledge accrued from online classes, but what assurance do we have that their "...outcomes are the same ...[as] ...award winning campus-based courses?" The ultimate benefits to the student may not be the same. We might have to factor in the social psychological problems of online classes.

The impact of information technology is not well researched or studied; it is a new frontier that lacks a body of knowledge based on empirical studies. Therefore, the adolescent field may be fraught with myths rather than proven methods of imparting education without the fear of side effects such as "dehumanization," deficiency of "group experiences," and the debilitating effect of "deprivation dwarfism," especially on young students who are still in the process of developing physically, psychologically, and emotionally.

DEHUMANIZATION

Basically, dehumanization is the condition that makes people treat others as objects. Socially imposed dehumanization could come from the job itself, the technology one uses, and the circumstances surrounding the tasks to be carried out. The job itself dehumanizes the individual because it permits no opportunity for expression of either personal feelings or uniquely human abilities. Online education seems to have similar characteristics in the form of repetitive tasks, delayed performance feedback, loss of attention and concentration due to lack of student-teacher interaction, and the boredom due to impersonal presentations of lessons.

Although repetition is essential to learning, repetitive tasks are sources of boredom. The routine of logging on and off becomes mechanical in nature. The three-way face-to-face interaction of the student with

his or her classmates and the instructor would force the student to remain focused on what is going on in the classroom. Leamson (2000) cogently states that “The really difficult part of teaching is not organizing and presenting the content, but rather in doing something that inspires students to focus on that content –to become engaged.” The virtual class seems to have the characteristics of dehumanizing forces conducive to creating an anomalous educational environment.

DEFICIENCY OF GROUP EXPERIENCES

To enhance students’ overall social-psychological well-being, the traditional university campus would provide a number of vital opportunities. Among the perks and the privileges are student organizations, stress management, social skills, communication skills, leadership roles, etc. Some, if not all, of these benefits seem to be conspicuously absent from the virtual university setting.

For instance, student organizations are havens for students, which are made possible by campus-based institutions. There is no denying the fact that we are all born in organizations and will die in organizations. How to be able to operate successfully within a group is of paramount importance. The virtual university does not provide the student with a real social environment within which to practice his or her skills, while the traditional university is a laboratory for experiential living. Armstrong (2000) argues that traditional campus provides an important transitional structure for “...high school students [to] become adults and citizens.” Even young adults would suffer dire consequences if their socialization processes are interrupted in their lives. Growing up in a social vacuum would put a person in a precarious position. Rebellious behavior, self and parent rejection tendencies would manifest themselves in later stages of life. Campuses have student life and development centers to encourage students to form clubs, associations, fraternities, sonorities, etc. for networking with fellow students who can prove to be important in later life. These organizations are the incubators of our future community and national leaders.

Recently, one student organization at a large university campus distributed a brochure at the beginning of the semester to attract members. The following statements and benefits were written on one side of the brochure:

What does the Pacific Rim [Association] offer to its Members?

- *A Better Understanding of The International Environment**
- * Social Events**
- *Scholarship & Internships**
- *Foods from Various Countries**
- *Friendly Atmosphere**
- *Individual Growth**
- *Team Building Skills**
- *Resume Builder**
- *Awareness of Other Cultures**
- *Contacts with Other Professionals**

Notable among the above listed benefits are “Social Events,” “Individual Growth,” “Team Building Skills,” and “Awareness of Other Cultures.” The traditional campus is a setting that provides a lot of experiential learning for the student’s life and development. Because of the nature of the virtual university campus, a lot of these benefits have to be forgone. The opportunity cost of lost group experiences may prove to be later quite dear to society. Could online education deprive the natural environment of students where they would normally cultivate effective interpersonal relations? The classroom, the group project and other activities help with students’ stress management. For example, the pressure of a group project is shared with all other members, and some members would have sympathetic ears for listening to their classmates’ fear, frustration, and heavy burden of going to school while working part time and maintaining good grades. Being with other students in a common predicament would have therapeutic consequences.

Social skills are essential for getting ahead in any organization. Research has shown that social animals have larger brains because they need to deal with one another. For bonding in animals it is grooming; while in humans, it is conversation. As much as the Internet is a carrier of communications, it can not replace the friendly and stimulating face-to-face conversation with one's classmates or teacher. A student can hone his or her communication skill through oral presentations required at traditional schools wherein the class would normally serve as a surrogate audience.

Leadership roles are made available to students on campus. Being the president of a student organization yields invaluable experience to our future leaders. Besides, humans, like many other animals, are gregarious by nature and they have strong herding instincts. An online education system would not present an arena for our students to feel, learn, and practice different roles of being a leader or a follower. It takes a lot of social skills to become a good follower, too.

DEPRIVATION DWARFISM

Can the absence of a motivating teacher, the lack of personal human touch have a negative impact on the student's emotional maturity? To answer this crucial question, the following relevant historical as well as modern day research experiments are cited briefly.

According to Herodotus, the Greek historian, the Egyptian king Psamtik I in the 7th century BC decided to conduct a scientific experiment. He wanted to test the hypothesis that a child if brought up in isolation from others would speak the oldest language of humankind. On account of his absolute power, he took two newborn babies and placed them in the care of a shepherd with strict instructions that the babies were to be brought up in total isolation –no one was to talk to them or speak in their presence.

After two years, the shepherd reported to the king that he heard the two children repeatedly pronounce the word "becos," meaning bread in the language of the Phrygians, an ancient people living in historic Armenia (present day central Turkey). From this study, Psamtik concluded that the Phrygian language was the first ever spoken by man. Naturally, nobody now accepts Psamtik's conclusion. Some of the critics contend that the infants were simply imitating the sound of the shepherd's flock. Despite this renunciation, no one has yet discovered man's first spoken language. History does not tell us either as to what became of these children sequestered from their human kinfolk..

Perhaps inspired by King Psamtik's experiment, Frederick II, a 13th century emperor of Sicily and a master of languages, was also convinced that every person was born already knowing the original human language. Central to this notion is the belief that a child would begin to use this built-in language without any training or experience as soon as the child is old enough to speak. An experiment was undertaken to test this hypothesis.

A group of foster mothers were put in charge of a number of newborn infants. Like in King Psamtik's experiment, the mothers were to take care of these babies in strict silence, never speaking to them or allowing them to hear other humans in conversation. Once the infants begin to speak, they would reveal the true language they had inherited since nothing could be attributed to their upbringing. Unfortunately, the emperor wasted his time, "...because the children all died. For they could not live without the petting and the joyful faces and loving words of their foster mothers."

This may sound like a fable. Is there a relationship between depriving an infant of love and affection and later illness? Does the child only need nutritious food and other good physical environment for normal growth and physical well-being? Or can someone die of a broken heart? Could emotional deprivation really have such great effects on human beings even at adult age?

A Spanish clergyman has written in his report that “In the founding home the child becomes sad, and many of them die of sorrow.” A study of children in postwar Germany traced the relationship of weight changes in children to quality of care in orphanages (Gardner 1972). In orphanage A where the matron showed kindness and love, the children gained greater weight than in orphanage B, where the matron was harsh and stern. The conclusion of the study is that growth accelerates with good food and loving care.

Gardner’s (1972) research has provided us with direct evidence for the relationship between emotional needs and physical development from his intensive study of six “thin dwarfs.” He undertook a milestone study in which he examined some children who were underweight and short in stature. These undersized children also had “retarded skeletal” development; their “bone age” was much less than their chronological age. These children had all come from family environments characterized by emotional detachment and lack of affection between parents and children. Gardner showed that this condition, called “deprivation dwarfism,” was the physical consequence of emotional deprivation, because he found that these children would gain weight and begin to grow when they are no longer in a hostile environment and that their growth again becomes stunted when they are returned to the hostile environment.

Since the growth problems reappear in children who are returned to a hostile family environment, Gardner has provided strong experimental evidence that deprivation dwarfism is indeed the consequence of emotional deprivation. Gardner’s experiment provided the basis for future studies in this area.

As to the exact process by which deprivation dwarfism works, psychologists do not yet know. However, Zimbardo (1979) surmises that it seems to be related to the impact of emotional strain on the production of pituitary and growth hormones. Predominantly, growth hormone is secreted during sleep. These children may not sleep properly in their stress-filled homes. An interesting study with infant rats was conducted by Khun, Butler, and Schanberg (1978). The study clearly shows that maternal deprivation leads to an immediate suppression of growth hormone, which will increase when the rat pups are returned to their mother.

One might raise a valid question: Is it not true that deprivation dwarfism had to do with children and not with college or university students? The answer is yes, but later on research focused also on adults and similar implications were drawn for them.

Zimbardo (1979) states that “apparently, maternal deprivation in infancy is bad for all living creatures. But can we extend this analysis to suggest that a person can really ‘die of a broken heart’? Lynch (1977), a psychologist, believes we can include grown up adults. His meta analysis involved reviewing the evidence linking loneliness and isolation to health. Lynch further asserts that “there is a biological basis for our need to form human relationships. If we fail to fulfill that need, our health is in peril”

Lynch further points to the greater coronary death rate among widows than married women, among divorced men than married men. Cancer and strokes, as well as heart disease, occur twice as often among the divorced as among the married. The ultimate cause of death is of course, a physical malfunction, such as a ventricular fibrillation. In some, the likelihood of that breakdown is increased when a person is isolated from the touch, trust, and tenderness of fellow human beings. “Unlike childhood and adolescence, adulthood is not marked by clear, predictable milestones. Still, there are certain experiences and changes that nearly everyone goes through and certain needs that nearly everyone tries to fulfill.” (Morris, 1996). Humans never cease to learn and to develop.

Thus, mammals of all species, of all ages are susceptible to emotional malfunctioning. They cannot seem to escape from the devastating effects of deprivation dwarfism when subjected to lonely, isolated way of life devoid of touch, trust, and tenderness of fellow beings. In online education, the student maybe at risk. While the economic and convenience benefits are appreciated, much research is needed to determine what effect does online education, a fairly new technology, have on our students’ social psychological health. We all should have the elasticity of mind to question technologies which are used to shape the minds of our

students. In the next section, some suggestions are made for further study.

RECOMMENDATIONS FOR FURTHER STUDY

While social psychological concepts such as dehumanization, group experiences, and deprivation dwarfism gave us the suspicion that online education may not be gold despite its glitter, further exploratory research is needed. Research to generate questions (hypotheses) for further conclusive studies for there could be a dark side to the online education which need to be seriously addressed by researchers. Here are some areas to explore:

*Determine the differential competency level of graduates from online systems vis-a-vis those students from traditional institutions.

*Determine the extent of boredom and feelings of isolation experienced by the virtual education system students.

*Administer social psychological tests to see if differences exist in maturity, leadership abilities, social adjustment, sociability, conscientiousness, agreeableness, and intellectual openness of graduates from online systems as compared to graduates from traditional institutions.

Like asbestos, when cell phones were first introduced, the public embraced them with open arms. Now, this new technology is being scrutinized to determine whether it is harmful to the users. Too much is at stake. The risk may not be obvious, but the loss would be immeasurable. Could it be that we are dancing with the wolf in the sheep's clothing? We cannot afford to have slippery regards to the needs of our students at a time when improving education has become a national quest. Therefore, it behooves us not to be sailing in uncharted waters no matter how big is the challenge.

A CONCLUDING NOTE

To speak up as to what "resides in my heart," let me ask the ardent advocates of online education this question: Who would not give an arm to hear Albert Einstein lecture in person on his theory of relativity in real time? Who would not give a leg to hear Sigmund Freud explain in person the workings of the subconscious mind in real time? Real teachers in real time have the power to motivate, inspire, and fire up the neurons of the student's affective and cognitive engines.

Biased as this may sound, no technological innovations could ever come close to replacing the traditional teacher who displays his or her talent and craft to students on a face-to-face basis. Leamson (2000) presents compelling evidence that "Learning in most cases is influenced, or stimulated, primarily by external agents [teachers]. It is precisely here that teaching is critical." Analogously, it is the singer, not the song. Seeing the beauty of Paris on a video tape is not the same as experiencing it personally. It is the teacher, not content that makes the ultimate difference. Real teachers inspire students to reach to the stars with confidence, determination, and dedication. Any challenger to the real teacher, however, should be first declared safe through extensive research for the benefit of all stakeholders --students, parents, teachers, society, and the world.

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