## Chapter XIII
# Modern Technology and Mass Education:
## A Case Study of a Global Virtual Learning System

**Ahmed Ali**
*University of Wisconsin – LaCrosse, USA*

## ABSTRACT

This case study examined the effectiveness and significance of the Internet and interactive video broadcasting as instructional and communication media in a global virtual learning system. The study explored how differences in students' technology experiences, curriculum, cultures, and access to technology influence learning and student attitude in a technology-based distance education environment. The research also investigated whether the use of online references and materials is adequate and appropriate for successful distance learning. The setting was a virtual campus that linked universities in the U.S., Australia, and Canada with learning centers in different African countries. E-mail and face-to-face interviews, observations, and Web-based surveys were utilized to collect the data. The study reveals that students had mixed perceptions about the effectiveness of technology, with positive attitudes exhibited towards interactive video and some anxiety and dissatisfaction with the use of the Internet.

## BREAKING CAMPUS BARRIERS

Distance learning has been touted as a viable alternative to classroom learning because it allows students to obtain relevant knowledge in their preferred style and time. The existence of

various technologies such as interactive video and the Internet facilitate and promote distance education. The Internet, in particular, has become an increasingly important medium for providing instruction in distance education (Simonson, Smaldino, Albright, & Zvacek, 2003). Studies report that traditional teaching and learning may not effectively respond to the learning styles of 21st century students (U.S. Department of Education, 2000). Schools and universities are adopting the Internet as an instructional delivery medium that can complement, and in some circumstances change, traditional classroom instruction.

This change has already begun, propelled by diverse programs ranging from Web-enhanced learning to full-fledged online learning. Virtual schools and colleges have sprung up, and the Web has become an important medium for distance learning. One program with the pseudonym, the Pioneer Global Campus, has created a global virtual learning system that connects universities in developed countries to learning centers in Africa. As a consortium of several universities worldwide, the Pioneer Global Campus is unique in its global focus unlike other major distance education programs that are regional in scope.

Rising educational costs, limited opportunities for qualified students in local universities, and a desire to utilize technology led to the development of the Pioneer Global Campus. This virtual university was created to provide African students with access to education in diverse fields such as science, technology, journalism, languages, and accounting. The university has graduated several thousand students since it was founded during the second half of the nineties.

The university operates by creating partnerships with institutions of higher learning in the United States, Canada, and Australia. The external university partner accredits the programs. Individuals who participate in the program include students pursuing degrees in the receiving country as well as individuals interested in short-term, non-credit courses that do not have entry require-ments. This makes the Pioneer Global Campus a mass education institution that caters and appeals to diverse individuals and groups.

Various communication technologies are utilized to deliver content at a distance and to facilitate communication between students and instructors. The Internet and interactive video broadcasting are two common instructional channels. Over 50 learning centers in more than 20 African countries are equipped with satellite and Internet technologies. Students attend the learning centers to receive instruction via video broadcasting and the Internet.

## DISTANCE LEARNING: USE OF THE INTERNET

Use of the Internet for education is common in the developed world, though there is increasing need for online education in the developing world (Zembylas & Vrasidas, 2005). In the developed world, educators and students use the Internet to supplement classroom learning. The Internet is also increasingly utilized as a distance education medium.

Whichever way the Internet is used, the potential of the Internet as an instructional tool and instructional medium has been recognized globally. To integrate technology in distance learning, learning experiences should not based on traditional classroom concepts of teacher-directed instruction, but rather should include interactive learning principles that apply student-centered learning styles. Further, it is important to consider the audience for which online education is developed because, "in a global context, online course designers and teachers may face many questions concerning how to design and teach across geographical, social, linguistic, and cultural distances…" (Zembylas & Vrasidas, p. 62)

Scholars and practitioners have talked and written about the application of online learning. Miller, Rainer, and Corley (2003) posit that

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