



## Chapter XVIII

# Perspectives on 21<sup>st</sup> Century E-Learning in Higher Education

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### Abstract

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*This chapter explores a new higher education paradigm given the changing environment that will come with the advance of globalization and the rapid development of the Internet. As economies evolve around a global network and the value of knowledge, societies rely on universities to help shape future education in an emerging knowledge society. As teachers and learners already find that they need to adapt to the presence of the Internet, university managers and administrators will need to adapt their structures, strategies, procedures and programs to deal with the processes of globalization. Based on international research, this chapter presents a vision, and a paradigm from which higher education might be constructed. The Sloan-C Five Pillars of Quality Online Education and new applications, HyperReality and Croquet, are examined as potential platforms to reframe future developments.*

## Introduction

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In describing the concept of paradigms, Thomas Kuhn (1962), in his text, *The Structure of Scientific Revolutions*, meant “what members of a scientific community, and they alone, share” (Kuhn, 1977, p. 294) and went on further to suggest that “when paradigms change, the world itself changes with them” (1962, p.110).

Another equally important related concept as we examine changes in society is worldview—*zeitgeist*—which Michel Foucault calls an episteme, by which he means an all-encompassing body of unconscious knowledge peculiar to a particular time and place, and concludes that it is not possible for people in one episteme to comprehend the way people in another episteme think (Foucault, 1970).

Historically, higher education has seen many global paradigm shifts, with varying degrees of turmoil. The medieval university taught the word of God and began in monasteries in Europe and in temples, madrassas and churches in other parts of the world. Essentially elitist and male, it served princes and priests.

The emergence of communications technologies, especially the printing press and the railways, gave birth to industrialization and nation states. Universities moved from explaining the world in terms of God’s word to become part of the structure of the industrial age, explaining reality in terms of scientific rationalism, catering for a nation’s managerial and professional elite, gradually including women. This is the paradigm of national higher education that we know today. However, with the developments of the Internet, the World Wide Web, broadband, digitalization, wireless, satellite, mobile phones and new applications of virtual reality, HyperReality and artificial intelligence to build collaborative, immersive simulated environments, our children and grandchildren will face very different educational environments. Higher education is once again undergoing a paradigm shift, as technologies add new global perspectives, and universities worldwide face new challenges at a time of unprecedented demand for higher education.

## Current Scan

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John Daniel (1996) suggests that given the demand for higher education and the inability of conventional universities as we know them to cope, even sustaining the current level of participation in higher education and particularly the growing demand in India and China, one new major institution would need to be created somewhere in the world each week for the next 30 years. Clearly, a solution is needed that moves universities from being based on building and transport technologies, which are becoming increasingly costly, to also operate with computers and telecommunications. Students, particularly adults, seek life-long learning op-

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