

# Chapter 11

## E-Learning Technologies for Effective Teaching

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### ABSTRACT

*Information and Communication Technology (ICT) is extensively used in delivering e-learning. The effective use of technology in e-learning fosters learning and communication. E-learning technologies provide dynamism and increase in learning possibilities all over the world. The application of e-learning in education has already changed the organization and delivery of education. E-learning technologies and tools are increasing every day thus it is necessary to learn and know their properties in order to use them effectively. It is also important to know the learners and their skills for e-learning technologies. Digital Pedagogy emerged in response to this challenge; it effectively enhances and transforms teaching and learning to provide rich, diverse and flexible learning opportunities for a digital generation. For effective e-learning an instructor must focus less on lecturing and content presentation, and more on assisting learners in creating personal learning or knowledge networks. Virtual class tools, chat or instant messaging, voice over IP, asynchronous tools, forums, email utilities, blogs, wikis and other asynchronous and synchronous tools are commonly used technological tools. This chapter explores the way in which e-learning technologies have caused a revolution in education, allowing learning to be individualized, enhancing interactions and changing the role of the classical teacher into facilitator.*

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## **INTRODUCTION**

E-learning tools and technologies have a potential for catering needs for all levels of education irrespective of time and place. With the advent of Web technologies, learning come into existence more flexible (Burgess, 2003). E-learning tools and technologies evolve in interactivity and save time and effort for learning (Kuraishy & Bokhari, 2009). The method has universal application in terms of its efficiency, effectiveness and economics. The educator and learner were taking the advantage of this facility.

The pedagogical and socio-economic forces that have driven the learning institutions to adopt and incorporate e-learning in teaching and learning include greater information access; greater communication; synchronous and asynchronous learning; increased cooperation and collaboration, cost-effectiveness and pedagogical improvement. However, e-learning has not permeated to a great extent in many learning institutions in most developing countries due to many socio-economic and technological circumstances. This chapter discusses new e-learning technologies considering their pedagogical and effective implications.

## **TECHNOLOGY AND E-LEARNING**

New educational delivery methods such as distance learning and e-learning have been enabled by the progress in information technology. Many universities and colleges have accepted this new e-learning world as an outcome of this. This emerged the need for pedagogical and technical knowledge to be taught using the Internet, for many teachers this knowledge is slowly becoming a core competence. Dynamics of teaching and learning are being changed by technology (Janicki & Steinberg, 2003). E-learning has entered not only the education but also the corporate world in a major way as a complement to the traditional delivery methods. Traditionally difficult

educational paradigms such as adult learning or distance learning had been facilitated by it. It is possible to see e-learning as an alternative to the face-to-face teaching method or as a complement to it (Häkkinen, 2002).

Nichols stated that (2008) support and strategic ownership are required by successful organizational e-learning initiatives. Frequently, grassroots innovation encounters organizational barriers. Seven key “good practice” elements in online instruction are advocated by Chickering and Ehrmann (1996):

1. Encouraging contact between faculty and students,
2. Developing reciprocity and cooperation among students,
3. Encouraging active learning,
4. Giving prompt feedback,
5. Emphasizing time on task,
6. Communicating high expectations,
7. Respecting diverse talents and ways of learning.

Another important point in teaching with technology is the research mindsets required by academics to succeed in their discipline. Educators can create an approach to technology that fits to their discipline’s scope, and learners’ expectations through an ongoing cycle of personal research, theory and practice. The following are required for teaching successfully with emerging technologies:

- Experimentation spirit,
- Enthusiasm to engage learners in the creation of learning resources,
- Enthusiasm to “let go” of teaching approached of control and content presentation,
- Failure tolerance.

To serve in the development of learners capable of participating in complex environments, a transition from knowledge to ontology sug-

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