

# Chapter 35

## Technology–Enabled Learning Opportunities

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### ABSTRACT

*No generation is more at ease with technology than today's young people. This generation of students has grown up in an immersive computing environment and come to the school equipped with latest electronic gadgets such as smart phones, laptops and iPods. Educational technology supports meaningful learning and facilitates group interaction. The technology-based learning is especially useful in helping students conceptualize phenomena and processes. This chapter examines the role of technology in shaping the future of higher education by providing unique opportunities of learning. The chapter also discusses challenges of technology-enabled learning and offer specific recommendations to overcome these challenges.*

### INTRODUCTION

*Tomorrow's citizens, tomorrow's leaders, tomorrow's experts are sitting in today's college classrooms. Are they learning what they need to know? Are faculty using teaching methods that prepare them for future roles? (Huba & Fredd, 2000, p. 2)*

The young generation of today is highly conversant with technology and has grown up in an immersive computing environment. For higher education, the present era of pervasive technology has significant implications as the technology has opened up new venues of student engagement and

knowledge creation. For success in learning ability is the key factor and with online and distance learning becoming widespread the technology has transformed from being a niche channel for the delivery of educational content to become a mainstream channel providing increased access to educational opportunities, opening up new markets for content, and providing new revenue opportunities for academic institutions.

Technology tools, such as social networking and e-marketing campaigns, are also being used by campus administration to build connections with alumni, expand the reach and success of recruitment and fundraising activities, reduces costs of conducting various activities, and provide career

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support services to the students. Use of technology in academic administration has provided an automated, self-service system that has streamlined course registration, enhanced academic life, and reduced administrative requirements. New web-based solutions for course delivery have further improved student learning and academic environment (Glenn & D'Agostino, 2008). It has been argued that online learning potentially provides meaningful learning activities. In many universities in Europe and North America, the use of face-to-face lectures combined with tutorials or workshops is regarded as the preferred, if not the only, delivery medium for materials (Alexander, 2006).

This technology-enabled change in education produces a positive impact on academics. However, this change brings associated challenges including rising information technology (IT) costs, need to avoid technological obsolescence, insufficient resources, a lack of adequate instructional design staff, and other technological support issues. These issues can hinder the adoption of new technologies. However, it is believed that, despite these challenges, technology will become more intertwined into the fabric of academic life (Glenn & D'Agostino, 2008). The objective of this chapter is to examine the role of technology in shaping the future of higher education by providing unique opportunities of learning. The chapter discusses various tools of technology-enabled learning and elaborate them by giving case examples. The chapter also discusses challenges of technology-enabled learning and offer specific recommendations to overcome these challenges.

### **TECHNOLOGY TOOLS FOR LEARNING**

This section offers a discussion of the commonly used technology tools used in learning as well as other tools that are used to present and keep track of educational content, structure courses, monitor

class enrolment, and evaluate the learning process and progress.

### **SMS**

SMS messages are short 160 characters messages. These messages can be used to provide learning and evaluation support to educators. FrontlineSMS is popular open-source software that provides SMS communication. The SMS campaigns can help educators increase knowledge retention, facilitate long-term behavior changes and improve the quality of education. Instant messaging and chat applications are being used by teachers and students to develop proficiency in core subjects and 21st century skills. Teachers are using instant messaging for optional after-school study, such as lab group work and exam preparation. It was reported that students reluctant to participate in class discussions took active part in chat sessions which they accessed from the comfort of their homes while doing other things (Consortium for School Networking (2007).

### **Learning Management Systems (LMS)**

Moodle is a free learning-management system. It is widely used by distance learning programs including the International Telecommunication Union (ITU) Academy. Moodle features assignment management, grading, and quizzes. These features facilitate communication between teachers and students. Interoperability is one great advantage of MOODLE that ensures scalability and extensibility. A community of programmers is developing new modules to increase Moodle's functionality and to adapt it to users' respective needs.

### **Interactive Q&A**

Piazza is an interactive social-networking website Q&A website where students can pose questions

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