

# The Effect of Innovative Communication Technologies in Higher Education



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## INTRODUCTION

The aim of this chapter is to: (1) present a review of some innovative communication technologies in higher education and how these are implemented for organizational, marketing and learning processes, (2) illustrate how Information and Communication Technologies (ICTs) may drive the introduction and use of plethora of inventive activities in education.

Current trends in higher education institutions (HEIs) are associated with supplying the student with those learning methods that can lead to skills and contribute to his/her creative and individual thought (Cuenca et al., 2015). At the same time, teaching instructors need to be aware of the know-how in the communication and information technology sectors that can be further employed in different fields of research. In parallel the use of new technologies in the delivery of courses offers HEIs competitive differential advantages.

Financial cutbacks and limited government support for institutions of higher education, led to: (a) either a withering effect for them that shrink or merge in order to survive or (b) find innovative ways to survive and attract new students and audiences as potential users while making con-

nections with the community and firms (Bowen, 2013). The implementation of innovative communication technologies with the use of ICTs via computers, mobile phones, telephone lines to access and manage electronic data on the web allows users to actively participate in the learning process, provides lifelong learning opportunities and offers a competitive advantage to HEIs that have not fully implemented the possibilities on offer. HEIs may further adopt ICTs to communicate and promote their services on offer to attract existing and potential audiences but also to initiate technologies in order to provide the most updated tools for their learning process. Virtual and online learning processes cannot substitute for the physical experience, nonetheless, they may contribute to its enhancement.

For innovation to take place in higher education, the organizational culture of institutions of higher education and leadership should support such initiatives (Zhu, 2015).

This chapter presents an overview of the technological advances that enhance communication and strengthen innovation in higher education. A review of literature along with the use of popular business sources provides an as-is on the topic.

## **BACKGROUND-THE USE OF NEW TECHNOLOGIES AS A MARKETING TOOL IN HIGHER EDUCATION**

### **The Organizational Perspective**

The flexibility in using new technologies in HEIs is reflecting the socio-economic changes affecting the needs of the student population across the world (Narduzzi & Campbell, 2015). The characteristics of students are continuously evolving reflecting expectations for increased mobility, distant-learning, internationalization of the curricula and the introduction of new disciplines of study. New technologies such as learning management systems (LMSs) and web-based learning programs (BlackBoard Learn, Moodle, Brightspace by Desire2Learn(D2L), etc.) that extend to applications available on handheld devices such as BlackBoard Learn-Mobile Learn, Collaborate, Podcasts and iTunes U, or user-generated content (Wikipedia, Youtube, etc.) address some of the needs of learners. These applications offer some access to the functions available in the full-version web-based platforms. The mobile applications serve as enhancers rather than a mobile equivalent to the LMSs platforms.

The LMSs provide institutions with the advantage of offering credit-bearing instruction online. Access to these is course-specific and requires the use of a username and password available through an academic course provider. Using LMSs, schools enhance existing courses, offer hybrid options and/or introduce entirely online classes and programs of study.

Blackboard Learn in particular is a learning management system that offers both the capability of offering educational courses online and managing a learner's account through the same platform. It becomes a useful tool for online learners or students' on the go. Blackboard is a paid service.

Moodle is an unrestricted and open-source software that was introduced as a means to enhance courses or used a tool for hybrid courses taught partially in a classroom setting and partially on-

line. This is now the world's second most popular learning management system after Blackboard.

Brightspace by D2L, is another popular learning management system, providing an alternative to Blackboard and Moodle.

A number of free non-credit-bearing applications are used to enhance and compliment courses. iTunes U is such an application available on apple's iTunes store. Universities and schools across the world are able to create school-specific applications and content available to a worldwide audience.

Wikipedia and YouTube are both free worldwide user-generated platforms. Wikipedia is one of the world's largest user-generated content platforms referred to as an encyclopaedia. This cannot be considered as a scholarly source of reference due to its content-generation principle.

YouTube is a video-sharing platform that allows individuals and organizations to upload and share video clips, music clips, etc. Often academic establishments use YouTube to share lectures, seminars, product demonstrations or training videos.

Marketing and public relations departments of HEIs in charge of promoting and communicating to the public the institutions and services available are implementing new technologies and the use of internet in order to cater for existing and potential students' needs who are adept in internet applications (Siamagka & Christodoulides, 2016). In that way, people become aware of the methods and techniques on offer by HEIs and this may attract more potential students in the institutions that provide and promote innovative services and methods related to higher education. The tools could be implemented to promote the educational institutions and their activities. Both national and international students can be attracted while online learning can enhance collaborations between institutions.

In parallel, new technologies allow HEIs to cater for:

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