Chapter XVII

Web-Based Education Diffusion: A Case Study

Anil K. Aggarwal, University of Baltimore, USA

Ron Legon, University of Baltimore, USA

Abstract

Web-based education is diffusing across universities, disciplines, globes and educational levels. Many institutions are at the crossroad whether or not to adopt web-based education (WBE). In many cases their survival may depend on how successfully they can adopt WBE. In this regard, they can learn from the early adopters of WBE and, from their experiences, both good and bad without reinventing the wheel. This paper has two specific purposes: the first, describe WBE diffusion at a upper level university in the U.S., and, the second, is to discuss its diffusion experiences so that other universities can benefit from it. This paper relates diffusion of innovation theory and the 4 “P’s” of marketing to discuss Web education diffusion. We feel this is a first attempt in this direction. This paper should be useful worldwide for universities planning to start WBE and are looking for some guidance on “how”, “where” and “what” to follow to initiate the process.
Introduction

Advances in information and communication technology (ICT) are making asynchronous communication a reality (Aggarwal & Legon, 2003; Alavi, Wheeler, & Valacich, 1995; Berghel & Sallach, 2004). It is changing the communication patterns, education pedagogies, and the structure of the society itself. Businesses and universities are creating parallel online structure to the currently existing brick-and-mortar structure, either to meet the challenges of online businesses/for-profit universities or finding new customers/students through the Internet. This is happening because education itself is moving rapidly into a flexible asynchronous mode. Given that traditional face-to-face learning is rigid, synchronous, and promotes one-way (teacher-to-student) communication, it is not surprising that more and more students are opting for WBE. According to Alan Gilbert, Chairman of U21, e-student numbers will reach 160 million by 2025 and that education will become the biggest industry in the world. Given the lucrative WBE market, it is not surprising that for-profit universities are emerging and providing stiff competition to traditional universities. However, all is not rosy for the for-profit universities. Education requires recognition, quality, and accreditation from appropriate world bodies. Many for-profits are folding for lack of quality, lack of name recognition, and ultimately, lack of capital.

Traditional universities that have not adopted WBE are facing their own dilemma. For them, the obvious question is: Should they adopt “WBE”? Can the Internet conquer “time” and “distance” and provide quality education? How can quality be economically maintained? Can WBE really replace face-to-face education (Zhang, Zhao, Zhou, & Nunamaker, 2004)? Irrespective of these dilemmas, many universities are either already offering, or are in the process of offering, online training courses and degrees. To compete with business, universities must act like a business and consider WBE as a “product” driven by profits or at least operating at a break-even. Like any tangible product, WBE has its own product life cycle (Day, 1981). Given its rate of diffusion, acceptance by students, and push by exogenous factors like the Internet and other advancing technologies, WBE is diffusing at full speed and moving into the next stage of the product life cycle (Chan & Swatman, 2002; Hiltz & Turoff, 2002; Legon, 2002). The initial stage was technology driven, but the next stage is market driven. As the competition is increasing, universities are taking an e-business approach in the second stage (Alter, 2002; Stansfield, McLellan, & Connolly, 2004).

The next section defines WBE, and the following sections define various stages of product development.
Related Content

Evaluation of Computer Adaptive Testing Systems
Anastasios A. Economides and Chrysostomos Roupas (2007). *International Journal of Web-Based Learning and Teaching Technologies* (pp. 70-87).
[www.igi-global.com/article/evaluation-computer-adaptive-testing-systems/2979?camid=4v1a](www.igi-global.com/article/evaluation-computer-adaptive-testing-systems/2979?camid=4v1a)

Towards Automated Specifications of Scenarios in Enhanced Learning Technology
[www.igi-global.com/article/towards-automated-specifications-scenarios-enhanced/3001?camid=4v1a](www.igi-global.com/article/towards-automated-specifications-scenarios-enhanced/3001?camid=4v1a)

A Remotely Accessible Embedded Systems Laboratory
[www.igi-global.com/chapter/remotely-accessible-embedded-systems-laboratory/30434?camid=4v1a](www.igi-global.com/chapter/remotely-accessible-embedded-systems-laboratory/30434?camid=4v1a)
Gender Differences and Hypermedia Navigation: Principles for Adaptive Hypermedia Learning Systems
www.igi-global.com/chapter/gender-differences-hypermedia-navigation/4955?camid=4v1a