CASE STUDY

Web-Based Education Diffusion

A. 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.

Keywords: asynchronous learning; diffusion; distance education; Web-based education

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 mov-

ing 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 ex-

ogenous 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.

WHAT IS WBE?

WBE is an innovation that makes education available to individuals, irrespective of "time" or "distance" (Aggarwal & Legon, 2003; Alavi, 1997). Web-based teaching can be implemented from a same time/same place (traditional classroom) to any time/any place (asynchronous) environment. Many authors (Aggarwal, 2001; Legon, 2002) have described WBE as "just-in-time" education. Some of the features of WBE are:

• Any time/any place access,
• Brick-n-mortar to click-n-learn,
• User-centric,
• Individual goal-oriented,
• Self-motivated (driven),
• Just-in-time, and
• Non-linear learning.

Any innovation implementation requires customers (believers) and champions (sellers). Buyers are customers who are evaluating product, and the sellers are

Related Content

Automated Test Paper Generation Using Utility Based Agent and Shuffling Algorithm
Sahar Abd El-Rahmanand Ali Hussein Zolait (2019). *International Journal of Web-Based Learning and Teaching Technologies (pp. 69-83).*
www.irma-international.org/article/automated-test-paper-generation-using-utility-based-agent-and-shuffling-algorithm/214979

Learning Management System Adoption: A Theory of Planned Behavior Approach
Madison N. Ngafeesonand Yuba Gautam (2021). *International Journal of Web-Based Learning and Teaching Technologies (pp. 27-42).*
www.irma-international.org/article/learning-management-system-adoption/266414

Implementing and Assessing a Teaching Mode Based on Smart Education in English Literature Teaching
Yeting Hu, Chuanzhi Fang, Xin Heand Jinhua Wu (2024). *International Journal of Web-Based Learning and Teaching Technologies (pp. 1-18).*
www.irma-international.org/article/implementing-and-assessing-a-teaching-mode-based-on-smart-education-in-english-literature-teaching/336484

EVAWEB V2: Enhancing a Web-Based Assessment Systems Focused on Nonrepudiation Use and Teaching
A.I. Gonzalez-Tablas, A. Orfila Ramosand A. Ribagorda (2008). *International Journal of Web-Based Learning and Teaching Technologies (pp. 21-32).*
www.irma-international.org/article/evaweb-enhancing-web-based-assessment/2997

Computer-Aided Personalised System of Instruction for Teaching Mathematics in an Online Learning Environment
Willem-Paul Brinkman, Andrew Raeand Yogesh Kumar Dwivedi (2009). *Solutions and Innovations in Web-Based Technologies for Augmented Learning: Improved Platforms, Tools, and Applications (pp. 271-299).*
www.irma-international.org/chapter/computer-aided-personalised-system-instruction/29654