Chapter 4.1
Lessons in Implementing a Learning Management System in a University:
The Academic User Perspective

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ABSTRACT

This chapter examines the implementation of two learning management systems (LMS) in a university environment. Within the context of a case study and from the perspective of academic users, there is a review of the technological and organizational challenges that arise. There is an in-depth analysis of the implementation in terms of what went well and what should be done differently (i.e., lessons learned). Along with the macro-environmental factors that influence the global e-learning space, the related pedagogical issues, learning models, and technological toolsets are also explored. The authors hope that the experiences chronicled in the case study may act as a lesson to others contemplating such a project of the many technical and organizational issues that need to be addressed, with an emphasis on understanding the importance of the viewpoint of academic users.

INTRODUCTION

The phenomenon known as online education (also known as e-learning) is an emerging educational model that is touted as having a significant and rapidly growing future, predicted to exceed $US20 billion by 2005 (Turban, Aronson, & Liang, 2005). Managing the technical, infrastructural, cultural, and organizational issues is crucial to the effective deployment of online learning environments. In order to harness the full power of

such an environment, it is especially important to ensure that the process is effective from the academic user perspective. The macro environmental factors such as technical, social, governmental, organizational, and pedagogical that shape the online education environment are wide ranging and frequently interconnected, resulting in an emerging picture that is complex and extremely dynamic. The Internet and associated technologies simultaneously present opportunities and challenges for institutions operating in the global higher education economy, thus requiring an innovative organizational response to maximize competitive advantage.

The mission of this chapter is to provide a clear understanding, from an academic user perspective, of the main issues associated with implementing a learning management system (LMS) into the online education environment. Two compelling reasons drive the significance of the lessons arising from a case study such as this: first, the continued significant level of financial investment in information systems implementation projects; and second, the continuing track record of problems associated with project implementations, especially concerning systems meeting user requirements. The academic user group is at the nexus of the technology and its deployment, and thus plays a critical role in the overall success of the online education experience. Hence, wisdom should be harvested from such situations and made available to others contemplating such projects.

This chapter explores the implementation of an LMS in an online education environment in an Australian university. In this context, online education means an open and distributed learning environment that uses pedagogical tools, enabled by Internet and e-technologies, to support the teaching, learning, and knowledge building processes through meaningful action and interaction (Dabbagh & Bannan-Ritland, 2005). LMS are specialized, integrated software toolsets, developed specifically for the support of online course delivery (Sturgess & Nouwens, 2004). Examples include WebCT Vista, Blackboard, Lotus Notes Learning Space, Moodle, PlaceWare Virtual Classroom, First Class (Turban et al., 2005) and Webfuse (Jones, Lynch, & Jamieson, 2003). These packages have a suite of integrated functionality to support a wide range of requirements for online education including: discussion boards, e-mail, assignment submission, assessment tools, virtual classrooms, lecture notes, presentations, and resource materials (Turban et al., 2005). The rest of this chapter is structured as follows. The next section reviews the macro environmental factors that shape the online education environment. This is followed by an examination of the case study context, and then a discussion of the online educational model and the pedagogy of online education. The main sections of the chapter follow which cover the technological toolset and an examination of the lessons arising from an LMS implementation. The final sections cover recommendations, future trends, and conclusions.

MACRO ENVIRONMENTAL FACTORS AFFECTING ONLINE EDUCATION

Organizations such as universities involved in online education in the 21st century are subject to a wide range of macro environmental influences that individually and collectively shape their operational space. These influences may act as drivers or constraints (or both), and manifest themselves in concepts such as technological advance, globalization and internationalization, socioeconomic and cultural changes and influences, strategic management and competitive advantage, innovation, outsourcing, government policy, and human resource issues. The emerging environment is one of volatility and constant change.

The force of change wrought by technological advances such as the Internet and related technologies has shaped the environment for organizations