

Chapter 7

Digital Innovation for Transformation of Learning Management Systems at Universities

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ABSTRACT

Digital learning technologies have changed the face of the higher education sector and will continue to do so. The universities are using the digital LMS innovation (DLMS) tools that are unique to their environment. Different universities have different DLMS tools that are software driven and allow the users (management, instructors, and students) to use them for regular tasks. This study aims to investigate the acceptance and use of a DLMS at Jordanian universities. It also aims to examine the relationships among users (students and instructors), IT infrastructure, Jordanian culture, perceived usefulness (PU), perceived ease of use (PEOU), and acceptance of a DLMS. The study focuses on conviction of the users to use the digital system in a way to simplify their regular tasks. Findings are reported from data that were collected from 326 DLMS users.

INTRODUCTION

Digital Learning Management Systems (DLMSs) are widely used at universities for streamlining teaching and learning tasks, as they effectively manage learning tools and resources for user participants (students and teachers) (Kats, 2010; Rogers, 1995; Unwin et al., 2010). A phenomenal revolution has occurred in the university education over the past decade as a result of digital learning management systems, as

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they have been found to significantly benefit students' understanding and academic progress (Alnsour, Muhsen, Dababnah, Eljinini, & Barhoum, 2011; Rogers, 1995). DLMS applications are multifunctional, enabling students to have ubiquitous access to systems, watch lectures, download course materials and upload assignments online (AlQudah, 2014).

The latter provides convenience to students as never before and is conducive to study. To have efficient functioning of a DLMS, it is necessary to enable well-established links between data that is indexed by search engines, and web bots that connect and bind information together (Babić, 2012). DLMS empowers users and offers a greatly enhanced user experience overall (J. McIntosh & Torres, 2014; Phillippo & Krongard, 2012).

A DLMS greatly simplifies learning and deliverables, such as tests, assignments and other forms of assessment, with the use of multimedia applications that incorporate team learning through dynamic, real time, documented collaboration. Some examples include the use of chat, file transfer and assessment applications. A DLMS creates new platforms for the active learner and results in greatly expanding the learning curve. To fully understand the nature and implications of different DLMSs, it is vital to explore exactly what the DLMS context is (Ahmad, Chinade, Gambaki, Ibrahim, & Ala, 2012). This study is based on the most recent and related literature explaining various scenarios where DLMSs address learning issues in the digital environment in a way that was not possible in the previous confines of print logics.

This research study aims to identify the factors that impact on the acceptance of the DLMS at Jordanian universities. This research also investigate the acceptance and use of DLMS at Jordanian universities. It also focuses on the factors influencing acceptance of the DLMS at these Jordanian universities. However, the university management seeks, through related parties, to achieve the following goals:

- Provide all possible means of modern machine technologies (servers- information center-operation center-computer workshops-television digital learning management system such as Blackboard or Moodle) and necessary operating systems.
- Guarantee the application of information systems.
- Automate (machines of procedures and models) all information tasks.
- Take advantage of networks affiliated with the university, such as email services, banner system and television transmission of lectures and activities.
- Provide an environment suitable for spreading digital learning management system and applications and related training.
- Achieve high levels of information security from the source to the users.
- Safety of procedures and policies that guarantee the provision of electronic services.

BACKGROUND

Insight Into the Digital Learning Management System (DLMS)

Iskander (2008) and Whelan and Bhartu (2007) identify DLMS as a macro level term that refers to facilitating and managing the online learning process for all user profiles. These user types are students, administrators or instructors. The services facilitated by the DLMS include interactive strategies, and organising and monitoring control among learning groups. According to Kats (2010, p. 163), there are six tasks that are involved in an active DLMS. These six tasks include:

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