

Learning Management Systems in Jordan context

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ABSTRACT

Learning management system (LMS) is an important tool and well suited as a learning tools and activity in universities high education. However, each institute has different LMS tools that allows to users (Management, Instructors and Students) to use it for daily activity. This paper discusses the main usefulness tools in Jordan context in order to improve and highlight the gap in high education I Jordan Universities.

Keywords: Learning Management System - LMS, Jordan University, University of Jordan, IT Infrastructure

INTRODUCTION

Learning Management System (LMS) is a software that is used in administration, reporting and other training exercises (Al-Dmour, 2014). In academic institutions this paper aims to study the LMS tools in general in order to help the managements to select the best LMS tool for their institute. The researcher will also present the main tools and highlights the benefits and weakness area for each one of them. This paper presents LMS in Jordan context.

A good and effective LMS leverages new ways for learning in higher education learning and professional degrees. Everything is now organised electronically and stored digitally. Innovating technology has created new flexible and collaborative platforms that enhance learning. Moodle is an example of one LMS that is spreading around the world (Ahmad, Chinade, Gambaki, Ibrahim, & Ala, 2012).

Despite selected Jordanian faculty members having successfully adopted and established LMS in their teaching, others continue to struggle integrating basic LMS technology and tools designed to support the new learning approach (Cuban & Cuban, 2009; Morgan, 2003; Walsh, 1993). According to Cho and Berge (2002), the most influential factors regarding the adoption and deployment of LMS are the culture and norms of those working in higher education faculties.

Literature emphasises that the level of encouragement provided by faculty and institutional support personnel is the most significant factor influencing the successful application of instructional technology in the context of learning in higher education (M. A. Al-Shboul & Alsmadi, 2010; Butler & Sellbom, 2002; Morgan, 2003; Ndahi, 1999).

Many faculty members choose to apply LMS for two main reasons. Firstly, some academic staff understand and value the way LMS facilitates and simplifies communication between students. The motivator for the second group is more obligatory in that they are expected and are under internal pressure to integrate LMS irrespective (M. A. Al-Shboul, 2007; Dealtry, Macpherson, Homan, & Wilkinson, 2005; Reilly, Vandenhousten, Gallagher-Lepak, & Ralston-Berg, 2012). This indicates that the motivation for the acceptance of LMS by some faculty members is purely because they are mandated and therefore forced to incorporate it without ever really appreciating the benefits. The current teaching practice heavily incorporates and advocates LMS as part of the curriculum (Nelson, 2003). Nelson's literature review concludes the main rationale and purpose of LMS applications is to provide a simple, communication platform for students which is conducive to communication and collaboration (Coogan, 2009; Dietz-Uhler & Bishop-Clark, 2001; Grandgenett & Grandgenett, 2001; Nelson, 2003; Selim, 2007; Strudler & Wetzel, 1999).

A study conducted by Gautreau (2011), demonstrates that one hundred percent of faculty members surveyed use LMS applications daily however only thirty three percent used the same software. Nelson (2003) reveals that frequently faculty members do not have the skills to integrate the necessary LMS technology to support teaching processes. Babić (2012) highlights the need to investigate why only a proportion of the faculty members adopt and benefit from LMS.

M. Al-Shboul (2011) presents a number of reasons which support the traditional teaching approach used in higher education due to faculty members' such as resistance to change, lack of technology skills and knowledge, insufficient IT support and personnel and inadequate training and assistance of technology.

A study done by M. Al-Shboul (2013) at the University of Jordan (UJ) involving 1314 faculty members found that the most common difficulties relating to the implementation of e-Learning applications are not enough time dedicated to learn new tools (workload), a scarcity of technology training and provision and unsatisfactory institutional encouragement, support and incentives.

User Interaction with LMS

LMSs are used by various educational universities in order to conduct a stimulating, multimedia rich, learning environment and assist people in attaining their goals more efficiently and effectively. It also regulates personal mastery and evaluates processes and use of human resources. Human resources may include all the staff, external and internal members. Following are the functions of an active, healthy and productive LMS (Kim & Lee, 2008; McIntosh, 2014).

LMS tools has a competitive system in managing differently, because each organization has different LMS tools and users. It allows to search about any course and gives complete information regarding it. Furthermore, initiates online training that are helpful not only for students but also for instructors and also managements. It has also full availability of security and privacy. In addition, it increases and widens the capability of students and teachers and provides a platform for gaining information on multiple topics. Moreover, debate and discussions platform with known limitations. This creates better understanding and learner learns more this way. Additionally, it builds skills of individual regarding development and broader communication capacity of learners. It also provides online test platform, that able to test ability in different courses to how know much one has learned. Likewise, it allows in creating tasks and modules that are helpful in many ways. The special option for computer sciences and arts that helps in better understanding. Finally, LMS can create and design a synchronous course activities and communication outside the face to face class (M. Al-Shboul, 2013).

Merits of LMS (strengths)

A significantly larger proportion of the population around the globe enjoy a number of benefits in various ways. All people throughout different fields utilise and enjoy LMSs. Individuals mostly related behavior sciences that include different participations' benefit from actively using LMSs. These people are mostly learners, instructors and other management bodies such as manufacturers and distributors pharmaceutical products, bodies involved in health and hygiene, marketing and finance, fuel suppliers, distributors of goods and people involved in environmental university (Watson & Watson, 2007).

Limitation of LMS

Dispute that LMS is very important in different sections, but it also has some disadvantages like:

- a. Complexity LMS: Such as computer anxiety. Murshitha and Wickramarachchi (2016) defined the computer anxiety as “the fear or apprehension felt by individuals when they used computers, or when they considered the possibility of computer utilization, Thus, computer anxiety can negatively impact learners' acceptance and use of LMS.”
- b. A huge number of criteria: According to Abdullateef, Elias, Mohamed, Zaidan, and Zaidan (2016) there are many difficulties in the selection of appropriate software for business needs given the large number of OSS-LMS packages available on the market.

Not only final assessment is essential to make a decision, but also the analyses details of the individual elements. Due that we can detect the weak points of any systems (Whelan & Bhartu, 2007).

LMS in Higher Education

Learning Management Systems are widely used in fields such as computer science and the arts. Various courses are offered by engineering universities are available to be taught through LMS software releases. The digital LMS model has largely advanced as a response to a new digital textually and way of interacting with others as part of everyday life. LMS enables students to manage and manipulate large amounts of data they are exposed to through using the system and that would otherwise require excessive effort if sorted by someone manually. LMS is applicable for all types of study and those who benefit most are students of computer science and engineering. The now the innovative trend is to obtain and share knowledge online. In computer

science it facilitates teachers and allows instructors to easily explain and demonstrate concepts and techniques using screen sharing functionality and other tools provided by LMSs. The result of learning systems is more fruitful than other teaching mechanism. According to Garrote Jurado (2012) there was a survey done in engineering schools that studied the utilization of LMS in the teaching process. The results stated that the instructors could not use the LMS due to the risk there might be an adverse result on the teaching and ultimately learning. Proper results could be derived only if proper utilisation is carried out. To eliminate any threat to the educational process instructors adopting the learning system should be subject to mandatory training to ensure they implement it as intended. Work performed by computer science students is mostly of a practical nature.

The theory and originating discussions leading to the inception of ideas and breakthroughs are not as effective if they are not incorporated as part of a learning system and integrated as part of its functionality. Video calls and online chat through the process of LMS can remove this hindrance. As a result an active computer science learning takes places effectively and efficiently which is of great practical importance.

Research of LMS Tools- the Jordanian Context

As Jordan one of the developing countries with limitation resources, the government of Jordan is trying to exploit the Information Technology (IT) to compensate the lack of resources (Majadlawi, Almarabeh, & Mohammad, 2014). LMS tools become easily for Jordanian people especially in the school stage (Majadlawi et al., 2014). According to Economist Intelligence Unit (EIU) out of 68 entries, Jordan is in 54th rank in the worldwide. This indicator might qualify Jordan as one of the suitable environment to conduct the LMS in general and specifically in educational universities.

In order to cope with the scientific progress, Jordanian government realized the importance of developing (IT). As a result it has taken a serious measures for adopting IT in many fields (Al Bakri, 2013). There are obviously many beneficial aspects of applying IT in different fields particularly in Jordanian context. However, these benefits are regularly encountered with many obstacles, which hinder the IT successful implementation. Amongst these obstacles are the lack of knowledge, the availability of dictated plan and user's deep understanding of IT applications. Additionally, the existence of consistent security and reliable IT infrastructure play an important role in determining the successful IT implementation amongst Jordanians (Al Bakri, 2013). These obstacles will be presented in more details next.

LMS use and Facilities in Jordan Context

Following are the literature reviews providing analysis based on my extensive research tackling the most significant benefits, obstacles, implications and effect on LMS users in Jordanian universities. The reviews explore the most pertinent issues and aspects of the introduction of LMS in Jordanian universities today. Moreover, my suppositions regarding key outcomes of LMS integration are a result of vast and thorough investigation on its influence on academic process.

EL-Seoud, Al-Khasawneh, and Awajan (2007) conducts research, surveying 160 students from PSUT participating in web based learning to determine if and how the digital medium enhances the education process in Jordan at university level. The findings identify and highlight issues regarding students' ability to comprehend and retain the contents of and knowledge of the subject matter. Additionally, students overwhelmingly preferred the web based version of the course over the traditional classroom style. The study also reveals how the use of a web based format, tools and automatic standardised grading functionality considerably reduces the concerns of faculty members in relation to assessing students consistently and fairly.

Majdalawi, Almarabeh, and Mohammad (2014) surveys 240 UJ students about factors they perceive affect students' ability to learn when using a LMS at university. This study also raises important issues about UJ students using the popular "Moodle" LMS. Students are now comfortable and familiar with the LMS software and workflow. University students almost unanimously deemed "Moodle" very useful therefore heightening the awareness and support of academic decision makers. As a result of student progress, responses and feedback the adoption and integration of LMS continues to increase.

This study uniquely highlights how some academic faculties benefited more than others and reveals inconsistent LMS integration success rate results. It appears that faculties where students typically possessed a high level of computer literacy seamlessly integrated LMS whereas those such as the arts and social sciences are not exploiting any of the benefits of LMS at all. These findings illustrate the need for all students to be well versed, competent and comfortable using technology.

The Almarabeh (2014) did a study on 180 UJ students and found that those most fluent with the LMS software were considerably more likely to leverage and benefit. Intriguing, however simple the students' attitude incorporating their perceptions and

Table 1: Summary of prior studies on LMS in Jordanian universities

Author(s)/year	Study design	Research aims	Sample	Data collection	Main findings
EL-Seoud, S. A., Al-Khasawneh, B., & Awajan, A. (2007)	Case study	To better explain the need for web based courses To measure the degree of acceptance of such method among the different users	160 student	Survey	The online course management system was used to make available the course syllabus, the class assignment rubrics (guidelines plus evaluation criteria), and the weekly class agenda The calendar tool was employed to inform students about on-campus events, conferences, and other resources that we thought might be of interest to the students. E-mail and bulletin board tools were used for communication between instructor and students, students and instructor, and students and students. Students could monitor their progress by accessing their grades for every activity that had a grade associated with it. Reading quizzes, class surveys, and final course evaluation were also made available online
Muhannad Al-Shboul 2013	International education studies	To investigate the degree of E-Learning integration at the University of Jordan. to identify potential factors related to the use of e-Learning tools by faculty members (users and non-users) at this University	1314 faculty members	Paper based survey	Offer more training sessions in the use of e-Learning tools Offer workshops concerning the technical issues in using e-Learning tools Reduce teaching loads to make more time available for employing e-Learning tools Offer rewards and incentives for using e-Learning tools Offer adequate encouragement and support concerning the use of e Learning tools such as establishing or activating faculty development programs that focus on the use of e-Learning tools
Majdalawi, Yousef Kh. Almarabeh, Tamara Mohammad, Heba 2014	Life science journal	To examine how students receive and how they use Moodle platform. Additional external variables were also adopted: GPA, academic year, and faculty	240 students	Questionnaire	The students of the University of Jordan are highly qualified to use Moodle and have sufficient awareness of benefits of this system

(Contd...)

Table 1: (Continued)

Author(s)/year	Study design	Research aims	Sample	Data collection	Main findings
					<p>The results revealed that the perceived usefulness and perceived ease of use are factors that directly affect students' acceptance toward using Moodle, noting that the attitudes of students for using Moodle because of the perceived ease of use and not because of the perceived usefulness which invites the decision makers in the university to increase the awareness of the importance and usefulness of Moodle and other ICT tools</p> <p>Type of the faculty is an important factor that effect on perceived ease of use and perceived usefulness which means the decision makers in the University of Jordan must give more attention to the students in humanities faculties to increase their skills in using computer and internet in their courses and increase their awareness about the benefits of the Learning Management Systems</p>
Almarabeh, Tamara 2014	iJET, journal article	To examine students' perception of E-learning at the University of Jordan	180 students	Survey	<p>The students of the University of Jordan are highly qualified to use E-learning system and have sufficient awareness of benefits of this system</p> <p>The results revealed that the perceived usefulness and perceived ease of use are factors that directly affect students' attitudes toward using E-learning system, whereas the perceived usefulness is the strongest and most significant determinant of students' attitude towards using</p>
Ayman Ahmed AlQudah 2014	European scientific journal	To identify staff attitudes towards Moodle	80 instructors	Survey & interview	<p>Technical support has a positive effect on the perceived usefulness of</p> <p>The instructors significantly tend to like Moodle and see using it is a good idea</p> <p>The instructors' answers is because they lack computer skills, unlike the IT department. This leads to the difficulty most staff face and making Moodle easy would be an issue. Also, this may relate to resistance to issues of change</p>

(Contd...)

Table 1: (Continued)

Author(s)/year	Study design	Research aims	Sample	Data collection	Main findings
Alnsour, Ayman Muhsen, Zahraa Dababnah, Maher Eljinini, Mohammad Barhoum, Khalil Ali 2011	IJCSNS International journal of computer science and network security	To introduce the e-learning system to all Isra University students. To support the understanding of the overall learning process, learning motivation, legitimize application of knowledge, and a challenge for improving the teaching behaviours	86 undergraduate students	Survey	Increases the student's motivation to read and search for this e-learning system, due to the fact that it does save a lot of time Organize and manage different concurrent classes for a particular course
Muneer Mahmood Abbad, David Morris and Carmel de Nahlik	International review of research in open and distance learning	To investigate and identifies some of the major factors affecting students' adoption of an E-learning system in a university in Jordan.	486 undergraduate students	Survey	Students who are frequent and/or heavy users of the Internet are more likely to use eLearning systems Students who are confident in their ability to master an e-learning system, without help, are more likely to become users Students are reassured by the availability of back-up technical support Students believe that an e-learning system will be more useful to them if it is easy to use

overall views of LMS was ultimately the most critical success factor effecting successful integration of the innovative learning landscape. For example, if students harbored negative preconceptions about LMS they generally failed to successfully implement and/or integrate LMS. In contrast, those excited, typically IT and technology savvy students embraced and consequently evolved in a large way by integrating innovative LMS. The researcher impresses the need for all faculty personnel learning and supporting in each other's transition from a print based, traditional learning model to a digital context. If the LMS content is not comprehensible to all users as intended the message is lost in the medium and is never imparted. Even scholarly, highly intelligent people are essentially illiterate if they are not able to use LMS software properly and absorb the data presented in this new topology and form.

AlQudah (2014) study involves 80 instructors from different UJ faculties and points out that technical support further influences the ease and transition of faculty members transitioning to LMS. He also references additional studies where results support his theories and recommendations.

FINDINGS AND CONCLUSION

The current state of LMS applications in Jordan universities is not very common studied across researchers. Literature has shown a considerable amount of studies that sought the state of technology in Jordan educational context. However, these studies have only sought the level of technology in general while the research study will focus on the LMS applications. This is appeared to be lacking the literature review and hence the research study will fill in this gap in many different ways.

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