



The Usage of CIDOS and Social Network Sites in Teaching and Learning Processes at Malaysian Polytechnics

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ABSTRACT

In 21st century learning, students use educational technologies to apply knowledge to new situations, analyse information, collaborate, solve problems, and make decisions. Utilising emerging technologies, to provide expanded learning opportunities, is critical to the success of future generations. In this paper, the author will share the findings on the usage of CIDOS and Social Network Sites in teaching and learning processes at Malaysian Polytechnics. Two sets of questionnaires were distributed to a group of 84 diploma students and 41 lecturers from Politeknik Ibrahim Sultan, Politeknik Merlimau, Politeknik Tuanku Syed Sirajuddin, Politeknik Kota Kinabalu, and Politeknik Sultan Idris Shah. The results of the study show the existence of communication and interaction difficulties in existing Learning Management Systems (LMS). As a recommendation for future research, it is suggested to integrate current LMS with Facebook to support Online Collaborative Learning (OCL).

Indexing terms/Keywords

Learning Management System (LMS), Social Network Sites (SNSs), Online Collaborative Learning (OCL)

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INTRODUCTION

The emergence of open source Learning Management System (LMS) platforms, such as Moodle, has drastically expanded the scope of e-learning; thus leading to a diversity of situations, adjusted to specific educational demands. In Polytechnics, an open source LMS called CIDOS is currently being used. Through e-learning, learning can take place anywhere and at any time through the communication tools that it has. This feature provides a channel of communication among students and lecturers that is not bounded by class time and physical presence. In 21st century learning, students use educational technologies to apply knowledge to new situations, analyse information, collaborate, solve problems, and make decisions. Utilizing emerging technologies to provide expanded learning opportunities is critical to the success of future generations. Historically, Learning Management Systems (LMS) offer a relatively static one-way learning experience; from content to learners. E-learning systems appear to have reached a plateau, and they are greatly in need of the next stage of development i.e., the integration of social and collaborative tools to enhance the learning process. Few educators utilize the use of Social Network Sites (SNSs), such as Facebook, in their education. The 'bundling' together of LMS with SNSs not only transforms their lecturer/student offering dynamically, it also gives the learner a voice to contribute, share knowledge, and become part of a collaborative learning program. Along with SNSs, the web has become an interactive platform for contribution and collaboration.

The National Higher Education Strategic Plan (PSPTN), which was formed based on Core 2 in the 9th Malaysia Plan (MP – 9) clearly states that in order to achieve Vision 2020, the country must raise its capacity for knowledge and innovation and nurture first class mentality. Since 2011, there have been four PSPTN implementation phases, the second of which, is to strengthen and empower the higher education sector during the 10th Malaysia Plan (MP - 10), which will end in 2015. PSPTN contains seven cores, and through the second PSPTN core, the Ministry of Higher Education (MoHe) hopes to improve the quality of teaching and learning, in order to produce competent graduates. Twenty three (23) Critical Agenda Projects (CAP) have been created to achieve PSPTN, of which one is e-learning. The development of information and communication technologies that enable rapid learning and teaching is made through the use of a network that connects students and lecturers, students and students, and students with global web material online. The use of information and communication technology to facilitate the process of teaching and learning; or more specifically, e-learning; makes students more active and responsible for their learning. The concept of such a devoted student, learning through e-learning technology, is expected to produce graduates that are more responsible, independent, and self-reliant, and can compete in an international arena.

Most educational institutions have currently adopted a Learning Management System (LMS), either from an open source, such as Moodle and Sakai, or from a commercial source, such as Blackboard, to centralize contents, learning, and assessment activities in one learning environment (Carlos et al., 2013; Coates, H., James, R. & Baldwin, 2005). An LMS provides students and lecturers with a set of tools for improving and managing the learning process (García-Peñalvo, J., Conde, Alier, & Casany, 2011). They also provide a platform on the web, and many pedagogical activities can perform on them. Students can use LMS features, such as discussion boards or forums, to facilitate their communications and collaborative work in this learning environment. However, the communication features of LMSs are poorly utilized in most institutions, because they are being used primarily as course content features for lecture notes and presentation slides. Marijana, Aleksandra, and Aleksandar (2011) report that the frequency of LMS use by educational institutions is very low and has become unpopular among lecturers. In research conducted by Afendi, Mohamed Amin, and Abdul Halim (2011) into Malaysian Higher Education Institutions (HEIs), the authors reported that the reason why HEIs still use LMS in teaching is because of their course content facilities. Among the samples included in the study were Ungku Omar Polytechnic, Johor Bahru Polytechnic, and Shah Alam Polytechnic. However, this result shows that the communication feature was the least used of all features, and lecturers preferred to employ Social Network Sites (SNSs) to facilitate their communication. This exposes LMS weaknesses in the field of communication and collaboration among users. Similarly, Hernández, Amado-Salvatierra, Guetl, & Smadi, (2012) used other replacement applications as a built-in discussion forum in an LMS. A very common theme in Moodle forums is that of problems with email notifications, for things like submitted assignments, forum posts, graded assignments, etc.

Learning through Social Network Sites (SNSs) is currently a trending topic; especially since many studies have reported that students spend more time online on SNSs (Hernández et al., 2012). Studies have shown that online social networking tools enable interaction, collaboration, resource sharing, active participation, and critical thinking in educational activities (Ajjan, H., Hartshorne, 2008; Chen, 2011; Mason, 2006; Selwyn, 2007). However, Li, Dong, Untch, Chasteen, & Reale, (2011) believe that other social connections within SNSs may cause distraction to students; especially freshmen students. Therefore, the researcher agrees with Embi, (2011); D. Marijana, Aleksandar, Zorica, Dušan, & Krčo, (2012) to upgrade existing LMSs with a social function. Even though many educational researchers have looked into the potential of adapting SNSs in their teaching and learning processes, (D.-Z. Marijana et al., 2011; Al-Zoube, 2009; McCarthy, 2009), several studies have been conducted on integrating conventional LMSs, such as Moodle, with SNSs. This has left a gap in the body of knowledge on how LMSs can be integrated with an SNS platform, to effectively facilitate learning; especially in an online learning environment. According to Suthathip and Songrit (2012), educational technology researchers, who are interested in studying and developing new student-centred learning, should pay attention to students' demands. This paper shares the preliminary findings on the perceptions of students and lecturers on the use of CIDOS and SNSs in learning and teaching processes, and identifies SNSs, based on student and lecturer preferences. Discussion and future research is provided based on the findings of this study.



METHODOLOGY

Two survey instruments were used in this study, namely student and lecturer surveys. The lecturer survey was a 23-item questionnaire and the student survey was a 19-item questionnaire. Both questionnaires consisted of two parts; CIDOS and SNSs. Both instruments were adapted and modified from Embi (2011). In this study, the Cronbach's Alpha was 0.863 for the student survey instrument and 0.832 for the lecturer survey instrument. Ghaffar (1999) indicates that a questionnaire has a high reliability if the Cronbach's Alpha is above 0.80. It can therefore be concluded that the internal consistency of the data was achieved.

The questionnaires were distributed to 84 (N=84) Diploma in Hotel Catering and Tourism Management students, and 41 (N=41) lecturers of the Hospitality and Tourism Department from Politeknik Ibrahim Sultan, Politeknik Merlimau, Politeknik Tuanku Syed Sirajuddin, Politeknik Kota Kinabalu, and Politeknik Sultan Idris Shah.

FINDING

This section presents the findings, based on the focus of this study, which is to discover the usage of CIDOS and SNSs in teaching and learning processes at Malaysian Polytechnics. Therefore, only the focus relevant items are presented in this section.

In terms of CIDOS usage trends, Table 1 shows that the two main CIDOS features most frequently used by students were Assessment (82.14%) and Course Management (73.81%), while the least used features in CIDOS by students were Productivity (20.24%) and Communication (16.67%). Next, as shown, the two main CIDOS features most frequently used by lecturers were Assessment (95.12%) and Course Management (80.49%). However, the least used features by lecturers were Communication (48.78%) and Productivity (68.29%).

Table 1: Percentage of CIDOS access by students and lecturers

CIDOS features	Students	%	Lecturers	%
Communication (e.g. Forum, Chat)	14	16.67	20	48.78
Productivity (e.g. Calendar, Schedule)	17	20.24	28	68.29
Course Management (e.g. Content Sharing, Student Enrolment)	62	73.81	33	80.49
Assessment (e.g. Grade books, Tracking)	69	82.14	39	95.12

As shown in Table 2, Social networking, such as Facebook, MySpace, and Twitter, was the most commonly used alternative application by lecturers to complement the LMS provided by their institutions (39.02%), followed by Content Sharing (21.95%), Collaboration Tools (19.51%), Photo/Video Sharing (12.20%), Blogs (7.32%), and Communication Tools (4.885).

Table 2: Alternative applications to complement LMS

Alternative applications to compliment CIDOS	Freq.	%
Social Networking (e.g. Facebook, MySpace, Twitter)	16	39.02
Content Sharing (e.g. Slide share)	9	21.95
Collaboration Tools (e.g. Wikis, Google Docs)	8	19.51
Photo/Video Sharing (e.g. Flickr ,YouTube)	5	12.20
Blogs (e.g. WordPress, BlogSpot)	3	7.32
Communication Tools (e.g. Yahoo Messenger, Skype)	2	4.88
TOTAL	41	100



Table 3 shows the percentage of SNSs based on students' and lecturers' preferences. 95.24% of students and 95.12% of lecturers preferred Facebook as their favourite SNS. Table 4 shows both lecturers and students more frequent to access their preferred SNSs per day compare to access Cidos.

Table 3: Social Network Sites based on students' and lecturers' preferences

SNSs	Students	%	Lecturers	%
LinkedIn	0	0.00	0	0.00
Pinterest	0	0.00	0	0.00
Other	1	1.19	1	2.44
MySpace	7	8.33	2	4.88
Twitter	41	48.81	6	14.63
Facebook	80	95.24	39	95.12

Table 4: Frequently access per day

	Cidos		SNSs	
	Frequency	%	Frequency	%
Students	5	6	82	97.5
Lecturers	3	7.3	40	97.5

DISCUSSION AND CONCLUSION

Most educational institutions have implemented LMS to centralise contents, learning, and assessment activities, in one single learning environment. Students and lecturers use forums and discussion boards to facilitate their communication and collaboration work. However, from the results, it was found that lecturers preferred to employ Social Network Sites to facilitate their communication rather than using LMS. This shows that there were weaknesses in LMS, in the field of communications and collaboration among users. These results are similar to those achieved by Hern'ndez, Amado-Salvatierra, Guetl, & Smadi (2012). The authors used other replacement applications for built-in discussion forums within LMS. This result differs from that reported by Li, Dong, & Untch (2011), who believed that SNSs may cause distraction to students; especially newly enrolled students. Therefore, the author of this present study agrees with Despotović-zrakić, Marković, Bogdanović, Barać, & Srdjan (2012), and Embi (2011), that the existing LMSs should be upgraded with a social network function.

Recent studies have reported on how Facebook can be used to enhance both the learning process (Ractham & Firpo, 2011) and collaboration activities (Cerdà & Planas, 2011; Hern'ndez et al., 2012). In contrast to the findings by Ishan Sudeera & Tham (2011), Facebook simply cannot be successful in meeting the needs of students; it can only be used as a supplement, due to the incapability and limitations of LMS, such as in networking and communications. The findings from the survey of this present study indicate that 95% of students and 98% of lecturers have their own SNS accounts, and 95.24% of students and 95.12% of lecturers were Facebook subscribers. Suthathip and Songrit (2012) found that students preferred to use tools that they were familiar with. Therefore, during the next stage of this present research, the author will incorporate Learning Management System (LMS) with Facebook, to enable students and lecturers communicate on Moodle through Facebook. This will be used as an instrument to support Online Collaborative Learning (OCL).

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Author' biography with Photo



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