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Readiness for “Social Learning Management System” (Social LMS) in Sri Lankan Universities: A case study research based on the students’ perspectives.

D.N.T.Gunawardhana ¹, Chandana Perera ²

¹ University of Moratuwa, Katubedda, Sri Lanka

² Professor, Faculty of Engineering, Sri Lanka Institute of Information Technology, Sri Lanka

Abstract—Paper discusses the readiness for the Social Learning Management System in Sri Lankan Universities. The main objective of the study, was to identify the factors to be reconsidered in the existing Learning Management Systems. This is a multiple case study research based on two universities in Sri Lanka. Undergraduate students in the University of Colombo and the University of Moratuwa were included in the population and the sample method employed for the data collection in this research was Stratified Purposive Sampling. Learning Management System has become a support system of vital importance in higher education. Social Learning Management System is formed because of the Collaborative Learning methods in an online learning environment. The findings reveal that the willingness of undergraduate students to work in the social network environment for learning and grouping. The Social Learning Management System is a new concept and it has not yet been initiated in universities in Sri Lanka. The students’ responses have indirectly shown the importance of ‘Social LMS’. That is, they have been explaining the features of ‘Social LMS’ in their responses. They have discussed the functionality of ‘Social LMS’ pointing out the lack of collaborative learning environment of existing LMS. The research has discovered that students already possess the mental and knowledge readiness towards the building of Social Learning Management System in Universities of Sri Lanka.

Keywords: *Collaborative Learning, Electronic Learning, Information Systems, LMS, Social LMS, University, Sri Lanka*

I. INTRODUCTION

Educational institutes similar to Universities are non-profitable organizations and their behavior on information needs differ from the commercial institutions. Their vision is to create academics and to meet academic requirements. An Information System has become an imperative and powerful tool for all information seekers of higher education institutions. (Gunawardhana & Perera, 2015b). Learning Management System (LMS) is the most important and

popular information system, which is in use at universities (Gunawardhana & Perera, 2015a). “Universities all over the world are using learning management systems (LMS) to support and improve learning within their institution” (Dalsgaard 2006). “LMS provides many types of tools such as communication, productivity, assessment, and course management features” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). Students use LMS for managing their academic activities and needs; lecture notes, tutorials, examinations, results, resources, and so on. “Moodle (Modular Object-Oriented Dynamic Learning Environment) is the most popular LMS because it is a free open source. Moodle was developed by Dougiamas in 1998 based on social constructivism pedagogical philosophy” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). LMS made a massive contribution to university education in many ways; create a comfortable learning environment, deliver content, manage student details, and assess student performance, make a platform to meet students and teachers etc.

Learning Management System (LMS) is used for the design, implementation, distribution, and sharing of learning materials. “The initial intention of LMS design is to provide a flexible framework for innovative learning pedagogies” (Kim & Nguyen, 2015). “Previous studies have highlighted that LMS has not been fully utilized by educators. Educators have been found to use only the productivity feature such as uploading and sharing notes or handouts while ignoring other features” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). “Learning management systems do not support a social constructivist approach which emphasizes self-governed learning activities of students” (Dalsgaard, 2006). “LMS do not provide supportive environments that can support interaction and communication. Due to the incapability and limitations of LMS, such as networking and communications, lecturers sought for other applications as a replacement for the built-in discussion forum in LMS” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). These are

some of the reasons that contributed to forming the concept “Social LMS”.

The paper is organized as follows. Section II provides a detailed literature on Social LMS with relevant studies. Section III brings a brief description of the research methodology. Discussion on the study includes in section IV. Section V presents the threats of the social LMS, and conclusion devotes by section VI. Section VII discusses the further works on the study.

II. SOCIAL LMS

Students are moving to electronic resources than traditional learning materials and usage of social networks has become at a higher level. It is no secret that students spend more time online on Facebook, Twitter or other social networks. Some teachers use this behavior as a technique to share knowledge among students and it made a collaborative learning environment for students. “Higher education institutions are still using LMS in teaching due to the course content facilities. Therefore, the frequency in the use of LMS by the Higher education institutions is very low and has become unpopular among educators” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). With these circumstances, advantages of social technologies are caused to merge educators with education. “The social learning management system – the SLMS, which combines and integrates functionalities of both Learning Management System and Social Network Technologies (Hustad & Arntzen, 2013). “Social networking site (SNS) like Facebook is also being used as LMS in facilitating teaching and learning practices among people in schools and universities” (Wang, WooQuek, Yang, & Liu, 2011; Ban, Che'Pa, Din & Yaa'cob, 2017). Attractive and flexible environment, user-friendly interface, and collaborative working environment are important for students to enhance their learning.

“Various studies have been conducted to examine Social Network Sites’ (SNS) usages in education. These studies showed that SNSs enable interaction, collaboration, resource sharing, active participation, and critical thinking in educational activities” (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). Razali, Shahbodin, Ahmad & Mohd Noor (2017) have suggested the social networks for learning purposes for several reasons. They are enhancing the relationship, improving motivation, offering personalized materials and developing collaborative skills. “A social learning management system (social LMS) is a tool which favors social interactions and allows scholastic institutions to supervise and guide the learning process. The inclusion of the social feature to a “normal” LMS leads to the creation of educational social networks (EduSN), where the students interact and learn” (Avogadro, Calegari & Dominoni, 2016). Social LMS is a more convenient place for interaction with each other in educational purposes and improves the quality of teaching and learning by electronic environment. Razali,

Shahbodin, Ahmad & Mohd Noor (2017) have discussed the advantages of Social Network Sites using previous studies. They are; motivation, engagement/interaction/relationship, transfer of knowledge, quality of learning, communication, critical thinking, participation sharing/collaboration, learning experience, satisfaction (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). Social LMS facilitate interaction and collaboration among users.

According to Kim and Nguyen (2015), Learning Space has taken a very important place in a Social LMS. There are two Learning Spaces viz-private space and collaborative space. “When a learner logs into the system, the learner can choose to work in a Private Space or in a Collaborative Space. The private space refers to the individual activities of the learner” (Kim & Nguyen, 2015). Student has opportunity to update their status, visit their friends’ pages, and give comment for friends’ activities in the Private Space. The Collaborative Space is a group space for the ‘Discussion Group’ and ‘Course Group’. Course management, learning management, and learning materials are included in ‘Course Group’.

The arrivals of social networking through technologies have begun to change and modify learning behavior and delivering methodologies in higher education. The concept of ‘Collaborative Environment’ is one of the major factors that influence it. Higher education institutions are paying human and physical resources to build and manage information systems. “Usually educational institutions view “learning as a technological problem, one that requires a ‘system’ to ‘manage’ it”. They should support “learning enhancement environments” not “learning management systems” (Groom & Lamb, 2014 cited by Holotescu, 2015, 29). However, now it is the time to discuss whether LMS support to the enhancement of the learning environment. Some researchers have shown the importance of Social LMS by providing counter-evidence against the existing LMS. According to Holotescu (2015), “LMSs are teacher-centric, teachers being those who create courses, upload content, start discussion forums and form study groups; students initiative and self-learning decisions are limited; LMSs are used more for “downloading learning” - modules than for collaborative work” (Holotescu, 2015). “When compared to existing LMSs, the Social LMS can improve learners’ learning ability by supporting feedback on incorrect answers through collaborative learning by relying on the social connections among learners”(Wang et al, 2012). Field of higher education is being faced many challenges with technology improvement to provide the best opportunities for students. Providing a more interactive environment to develop active relationships among each other by building team works in their learning environment is a new challenge.

Social software is carrying out many changes in every field like sales, marketing, education etc. Social network

environment has become a good place to catch the latest information in an effective manner. "Online social networks are effective and efficient learning environments for social constructivist and connectivist learning" (Bozkurt, Karadeniz & Okur, 2015). The collaborative environment provides a good space for information sharing and knowledge generating by networking with others. "The Social LMS allows learners to share the necessary information for learning with each other and receive feedback from their personal connections through social network sites (SNS). Such SNS-based collaborative learning provides reliable feedback in real-time through an online social network" (Wang et al, 2012). Social networks like Facebook, Twitter, and LinkedIn are widely open and allow making interactions with friends, peers, and other stakeholders. Bozkurt, Karadeniz and Okur (2015) have investigated Online Social Networks as "Communication and Learning Environments" by using postgraduate students. According to their findings "SNSs are suitable learning environments in terms of facilitating interaction" (Bozkurt, Karadeniz & Okur, 2015). They have pointed out the need of doing a research to analyze undergraduates' preferences and attitudes towards to use of social network sites in the learning process as future implications.

Online learning environment offers many benefits for students rather than traditional methods. The use of 'social network sites' is high and has become a new trend among the undergraduate students. Social LMS is significant important due to several reasons. It is helpful to interact and communicate with the peer in a collaborative learning environment. This is a better tool to exchange knowledge among large cluster.

III. METHODOLOGY

There are fifteen government universities in Sri Lanka and two of them have been selected for this research study considering different dimensions and aspects of subject areas. They are University of Colombo and the University of Moratuwa. Undergraduate students of University of Colombo and the University of Moratuwa were included in the population of the research. Sampling method used for data collection in this research was Stratified Purposive Sampling.

IV. DISCUSSION

The sample consisted of 262 students from the University of Colombo representing Faculty of Arts, Faculty of Management and Finance, Faculty of Law, Faculty of Science, and 364 students from the University of Moratuwa representing Faculty of Architecture, Faculty of Engineering, and Faculty of Information Technology. The level of

knowledge of the students was assessed according to the Likert scale (1= very poor to 5 = excellent).

Figure 1 shows the level of knowledge and skills of undergraduates to work with the Social Media.

Majority of students from all faculties have good knowledge of Social Media. Students were very familiar with social media like Facebook and Twitter. They have pointed out the importance and their interest by explaining in the survey questionnaire. Students have requested chatting facility and sharing facility to do group discussion at the Learning Management System. Students have suggested that the following to be developed in the existing LMS.

It can be divided into three main categories. They are New Features, Collaborative environment, and other.

New Features

- receiving update alerts of news / having SMS alert service
- having access to manage their account/profile
- adding interesting aspects such as social media
- adding extra aspect for knowledge such as Facebook
- giving notifications about newly updated aspects in their course modules
- providing alternative sites to access information
- having some audio-visual mechanisms that enable students to follow them up even outside the teaching periods at the campus

Collaborative environment

- adding more options to do collaborative works
- connecting the external reference links
- making it available for group discussion
- having sharing facilities among students
- notifying in advance of due date of submission.
- adding chat option
- adding documents with the option of sharing.
- having peer to peer dialogue (group chat) for project-related purposes

Other

- having friendly interface
- having LMS app
- making attractive web page.
- updating the system daily.
- making more mobile-friendly
- making attractive user interface

V. THREATS OF THE SOCIAL LMS

There are some threats in the concept of Social LMS. “Most of the popular social network sites in existence are not designed for the purpose of teaching and learning. A

Level of Knowledge and Skills to work with the Social Media

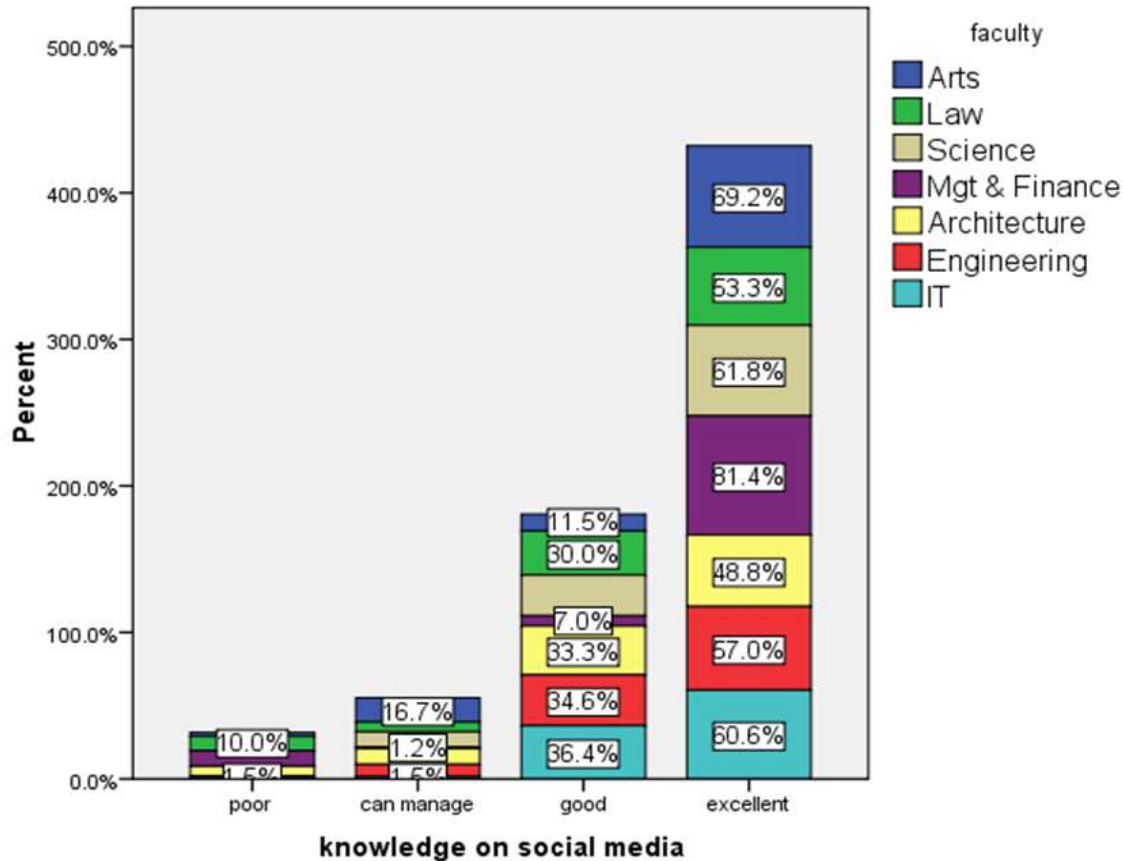


Figure 1: Level of Knowledge and Skills to work with the Social Media

These suggestions are directed to the concept of 'Social LMS' and guide the way in which it should be there. Enhancing collaborative environment in existing LMS is a challenging task in Universities. It can be seen the powerful development of social networks, and young are addicted to Facebook, Twitter and other social networks to some extent. It may cause to create a collaborative working environment for educational and social purposes among students.

combination of a traditional LMS base with a social network environment should be a significant architectural development to promote learners' active learning" (Kim & Nguyen, 2015). "Although there are demonstrable benefits when it comes to integrating LMS and SNT functionality into the learning process, there are also challenges that prevent the enthusiastic incorporation of social technologies into established e-learning management systems" (Hustad & Arntzen, 2013,31). Further Hustad and Arntzen (2013) have pointed out the importance of the significant evolution in the education sector and the revision of pedagogical principles in their research article. "Higher education institutions should investigate SNSs for their potential as a social learning management system which may facilitate formal, informal and non-formal learning" (Bozkurt, Karadeniz & Okur, 2015, 4693). However, Social media are reported as a

fragment that should be given a tremendous attention due it has some disadvantages for teenagers. Although Social LMS is more beneficial for the students to work in collaborative environment, it is a challenging task in Sri Lanka with traditional influence, cultural effect, background facilities, and face-to-face learning environment.

VI. CONCLUSION

The students' responses have indirectly shown the importance of 'Social LMS'. That is they were being explained the features of 'Social LMS'. Although they could not understand the 'Social LMS' as a separate concept, they have discussed the functionality of it pointing out the lack of collaborative learning environment of existing LMS. "It can be seen that traditional LMSs are transforming to adapt to social environments" (Kim & Nguyen, 2015). With the student responses, this is the time to consider building an LMS that can facilitate "Collaborative Learning Environment". "Social LMS can improve the soft skills of students; critical thinking and problem-solving skills, collaboration skills, and communication skills" (Razali, Shahbodin, Ahmad & Mohd Noor, 2017). Previous works carried out on this field in foreign countries have shown the importance of integrated LMS with Social Network Site's functions. However, it is questionable in the Sri Lankan context with the cultural and traditional learning environment.

VII. FUTURE WORKS

It is necessary to conduct a feasibility study prior to integrating existing LMS with Social Network Site's features. This study was conducted using only the two government universities in Sri Lanka. It is suggested that further research have to be undertaken for other universities. It is a need to carryout research to analyze the opinion of Lecturers, Administrators, System Administrators, and other stakeholders towards to build of Social Learning Management System.

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