

Implication of Social Media Technology (SMT) for Teaching and Learning in Higher Education

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Abstract

We have reached a new era of teaching and learning that are student-centered, technologically mediated and social rich media. Social media has gained the attention in the community of teaching and learning in Higher Education. It allows timely end-user engagement at low cost with high efficiency as compared to traditional communication tools. Nevertheless, it has subtly directing a new way we inquire and process information. This study aims to identify the implication of social media in enhancing teaching and learning of Information and Communication Technology (ICT) courses in Higher Education. We investigate how social media could promote Self-Directed Learning (SDL) and its impact in learning process among UNIMAS students through online survey. Focus group interviews with academic with diversity background were conducted to study the implementation of social media in their teaching practices. This study serves as a building block to understand the academic and learners' perceptions of using social media in teaching and learning in UNIMAS.

Keywords: Social Media Technology (SMT), Information and Communication Technology (ICT), Teaching and Learning, Higher Education

I. INTRODUCTION

Social Media Technology (SMT) is an Internet-based system that evolves from the ideology and technology of Web 2.0 platform with enhanced features such as participatory and collaborative activity of the Netizen in User Generated Content (UGC) where it allows users to communicate with each other. Social media is a medium that opens the window of opportunity which could possibly creates more types of learning activities. It enacts as a tool that has huge potential to support pedagogy and promotes andragogy. It is a type of online media with the characteristics of participation, openness, conversation, community and connectedness [1]. For instance, activities such as posting public messages, sharing various forms of media content, forming online community, networking platform are incorporated in SMT [2]. Social media can be categorized into six basic types based on the foundation of media research and social processes [2].

Collaborative project, blogs and content community are more likely integrated in teaching and learning for in-class and outside the classroom activity as compared to social network [3]. Online content community such as YouTube is seen to have greater value to be used in classes as compared to social networking site such as Facebook and Twitter [3]. The social media communities do not solely benefit in terms of entertainment, but they share learning experience, findings, organize academic events and further develop their academic social network [4].

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Table 1: Six basic types of social media

Types of social media	Opportunities	Challenges	Examples
Collaborative	Joint effort versus individual achievement	Lack of control, content trustworthy	Wikipedia
Blogs	Sharing of information with highly owner control availability	Lack of assurance from third party and collaboration availability	Weblog
Content communities	Sharing of user generated content	Copyrighting issue	YouTube Slideshare Flickr
Social networking sites	Online community with sharing availability of user generated content, highly participatory	High user-centered	Facebook Myspace
Virtual game worlds	Offer highest level of social presence and media richness	A limited degree of self-presentation and self-disclosure by the restriction of game rules and form	World of Warcraft
Virtual social worlds	Highest stimulation of the human social world, the inhabitants are allowed to behave in virtual world similar to the real life world		Second Life

2. LEARNING EXPERIENCES ON SOCIAL MEDIA

The advancement in technology accelerates at a pace that is beyond our imagination. It gradually switches our lifestyle that favours the concept of on-the-go. Learning activities are slowly adapting into this trend as well where mobility is the key. A person may engage in multiple career paths throughout his whole life span. Self-directed knowledge acquisition is necessary in various stages of one's career path. All this indicates a need to redefine pedagogy. The role of learner should be as active contributor in content rather than as a passive receiver [5].

Social media promotes regulated Self-Directed Learning, where the learners have high level of control over their own personal learning environment [6]. By having the authority to control the sustainability of information, learners are keen to develop their learning interest as contrary to institutional or instructor-centered [7]. Through sharing of information with peers, it encourages the formation of common interest network with enhanced extracurricular learning activity. Such learning experience is mentioned as "local accessible, global in reach" [8].

Social media as ubiquitous learning tool fosters collaborations in a riotous manner [8]. It assists the learning communities by collaborative and communication activity where learners actively interact and are connected to the learning content and virtual learning community [9]. Such collaborative value renders the capability of peers' feedback and improves the learning achievement of the learners individually. Peers openly communicate their opinion and thought will help the individual learner generates greater understanding of learning content [9]. This substitutes the need of face-to-face learning interaction but at the same time maintaining good quality of dialogue between academic and learners.

Content from social media are used for teaching in class and some are used in a social media environment to engage the learners outside of their class and during their self-learning time [3]. As such, it generates a new learning experience where the incorporation of the formal and informal learning emerges guided learning time and self-learning time as a whole [6]. Such external teaching and learning horizon will lead to internal learning process with social benefits from the interactivity in synchronous and asynchronous learning environment [10].

3. BENEFITS OF EMPLOYING SOCIAL MEDIA IN TEACHING AND LEARNING

Social media technology is used to facilitate communication between learners and their communities [4]. With the flexibility of social media which is not bounded by time constraint, learners are able to access information created earlier on and integrate the information in their learning materials as the on-going cycle of learning process [8]. Furthermore, social media with individual personalized profile contribute to the sense of belonging of the person towards the community in which it supports virtual learning community with openness in sharing of information [9].

Social media serves as an instructional strategy to engage learners outside the classroom (informal learning) through participation in discussions or collaborations [10]. This will promote higher order thinking skill (HOTS) and deep learning. Using social media, academic can interact with the learners in this extended classroom by utilizing the chat tools and discussion boards which are more interactive compared to the conventional e-learning tools [7]. According to the past research, informal learning experience in social media could help stimulate learners and improve their academic achievements [7].

However, some studies found that the social network is causing more distraction than the T&L activity itself [3]. Hence, it is suggested to be mindful in utilizing different types of social media to match learning objectives and learning activities [9]. Different learners have different learning styles and meaningful learning only happen when the channel used to deliver knowledge is appropriate. Teaching using social media should consider learner's cognitive development, their specific learning styles and how the technologies facilitate social learning [11].

4. RESEARCH METHOD

In this study, we have carried out an online survey which was distributed through social media and e-learning medium such as Facebook and Morpheus. Participants consist of current undergraduate students from Faculty of Applied and Creative Arts and Faculty of Social Sciences undertaking courses such as Animation Studio (Year 2), End-User Computing (Year 1), Web Design (Year 3) and Statistic (Year 1) in University Malaysia Sarawak (UNIMAS).

In order to learn how academic utilise social media for Teaching and Learning in Higher Education; we sought their insights about advantages and disadvantages of using social media in their teaching through focus group interviews. We received supportive feedback from academic from Faculty of Applied and Creative Arts, Faculty of Medicine and Health Sciences, Centre of Language Studies and Center of Pre-University of Studies, UNIMAS.

Four open-ended questions were designed to interrogate if the interviewees use social media for their teaching and the reason for employing social media in the classrooms. We also inquired if they think social media improves the level of engagement of their students in learning. In addition, we probed the academic if they consider the specially designed learning tool such as Blackboard or Morpheus a better learning tool compared to the publicly accessed social media. Lastly, we queried if they will recommend their colleagues to use social media in their teaching.

5. RESULTS

5.1 Perspective of Students

176 responses were received where 101 students are currently studying at Faculty of Applied and Creative Arts and the remaining 75 are studying at Faculty of Social Science, UNIMAS. Their age ranged from 19 to 25 years old and 72% of the participants were female. Majority of them are originating from urban and suburban areas with moderate Internet setting and infrastructure. 74% of the students are either undergoing Year 1 or Year 3 undergraduate studies at the time being.

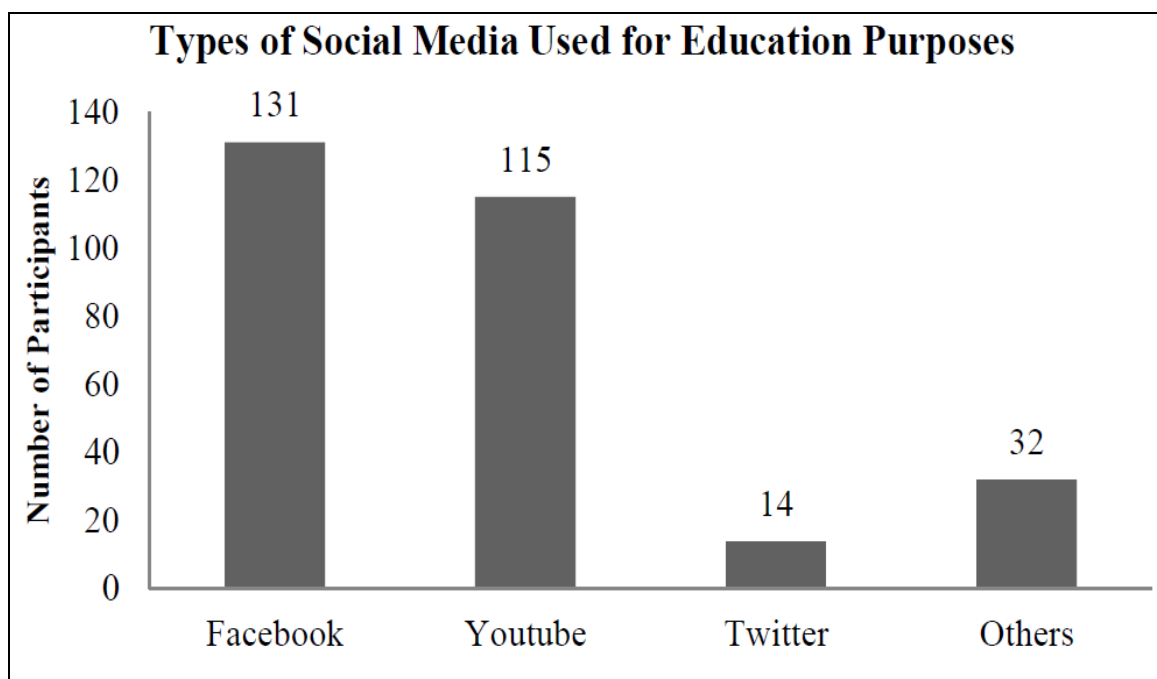


Figure 1 Types of social media used for education purposes

Remarkably, 97% of the participants claimed that they used social media for education purposes. Facebook and YouTube are two of the most frequently used social media as shown in Figure 1. 77% of these students hold at least a Smartphone while they are on the move and more than half of them have their device connected to the Internet via mobile data. They estimated that they spent at least 30 minutes and up to a maximum of 24 hours on their device. Their time was mostly spent to carry out personal and educational task followed by entertainment purposes.

Based on our findings, there are more than half of the students who prefer to access their learning material using social media platform and would persuade their classmates to use social media for teaching and learning purposes because they believe that social media plays an important role in higher education as it promotes learning practice outside the classroom. Some of them believe that it encourages students' participations because learning could take place anytime and anywhere. This means mobile learning could benefit the students if it is incorporated in the instructional design for teaching any courses offered in these faculties.

Interestingly, Figure 2 shows that more than half of the participants do not support the idea of replacing the current e-learning portal (Morpheus) with social media even though they agree that social media is an effective tool in teaching and learning and they would be more motivated to do self learning if it became one of their learning tools. But they do agree on adopting social media as one of the UNIMAS main learning tools. Perhaps it is due to the fact that Internet coverage in Samarahan area is not wide enough for mobile learning. In addition, the push notifications feature on social media would disrupt the learning process as the portal contains a lot of elements which tend to prompt the users to interact with from time to time. Most of these elements are of entertainment.

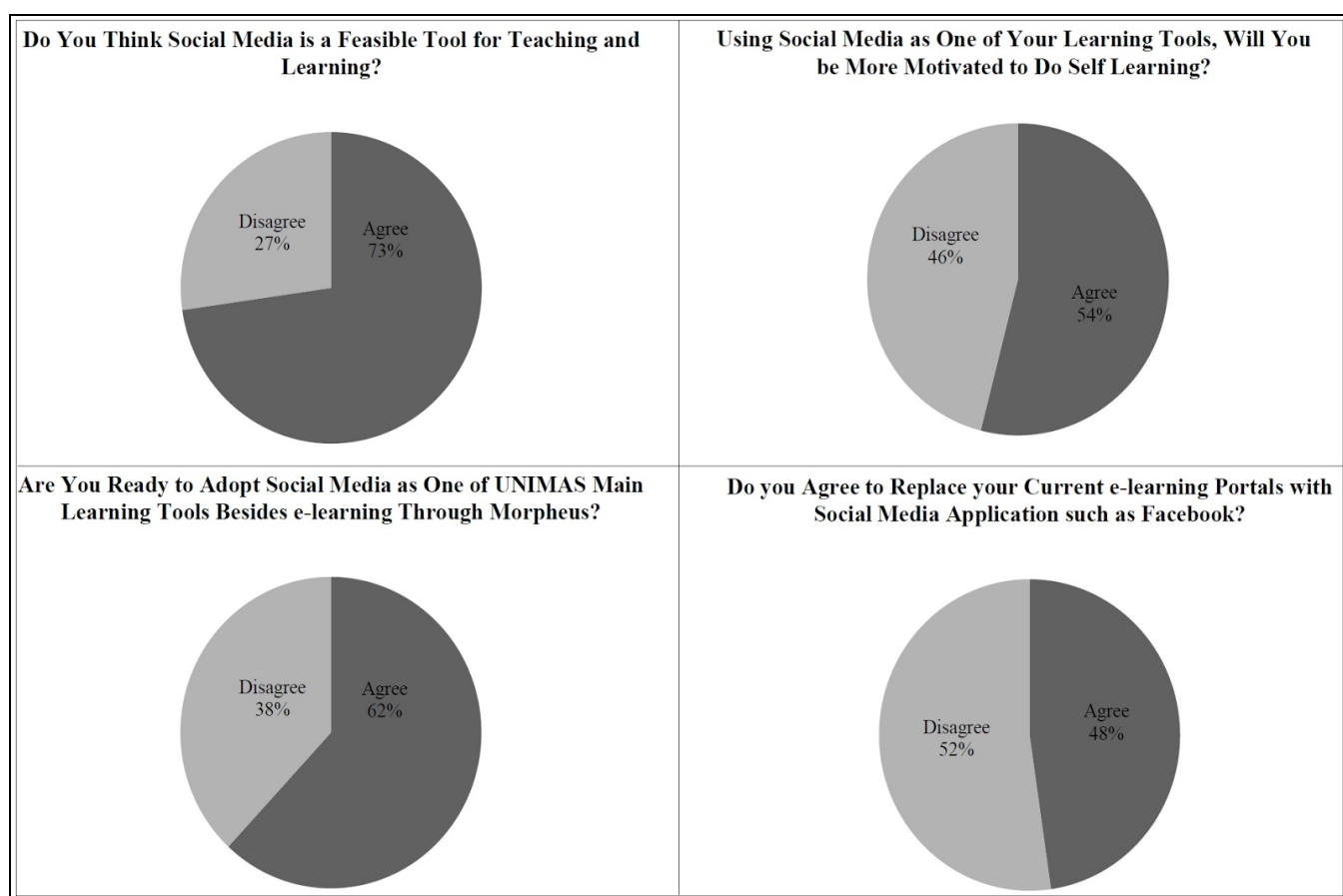


Figure 2 Students' responses on social media usage

5.2 Perspective of Academic

Twenty-two academic from Faculty of Applied and Arts, Faculty of Social Science, Faculty of Medicine and Health Sciences, Centre for Language Studies and Centre of Pre-University of Studies, UNIMAS have participated in the focus group interviews to share their opinions about using social media in their teaching. In general, there was more positive feedback on the usage of social media in teaching practices. 59% of the academic used social media in their teaching. Most of them used it to improve the dialogue with their students or share extra reading material with them. Only two of them upload their course learning material onto the social media platform for their students to download.

The interviewees mostly agreed that the level of students' engagement in learning has improved after employing social media as one of the learning tools. A number of them noticed that social media helped the introvert students to be active in their learning as it is a platform that they are familiar with. Only two of them think that the level of engagement will not be improved. These instructors merely use social media as a medium to improve interaction with the students. They made use of the push notification ability of social media to inform students of the latest update for the information related to their course.

77% of the interviewees believe that the specially designed e-learning tools such as Morpheus would be a better learning tool despite lacking of push notification function to its users. According to them, these e-learning tools provide more customizable features that allow the academic to have control over the content that is shared with the students. Instructors have the authority over the layout of the platform such that it could suit their course better. Most of them highlighted that social media is mainly designed for social network related activities and focuses on entertainment. It easily distracts the focus of their users from one point of focus to another. This is not suitable for learning which requires great attention in order to stay focus on completing a learning task. 14% of them are not keen to use any e-learning tools at all since they believe traditional methods work well for the course that they are currently handling.

6. DISCUSSIONS

Unarguably, social media brings more benefits to students if they have the maturity to use the technology wisely. Students learn about principles and fundamental knowledge by watching lectures video, then doing collaborative projects and forum discussions using social media in the virtual classroom. Students benefit as learning is ubiquitous where they can learn anytime anywhere on own pace through Self-Directed Learning; whereas assignments and discussions are normally conducted in the classroom environment, with instructors' as facilitators providing guidance and giving feedback based on their performance. Activities such as think-pair-share and one-minute papers are usually being used to encourage students to collaborate with each other and encourage better engagement among students; hence promote deep meaningful learning experience for the students.

From academics' point of view, using social media is merely as a mean for communication, interaction and sharing resources with students. The usage of social media in T&L depends heavily on the nature of the courses if the course is more theoretical-based or practical-based. From our findings, we observed and analysed these academic based on their attributes, personal preferences and academic practices of using social media, how they conduct their courses by implementation of social media for better engagement with students; whether in the conventional classroom environment, blended learning or flipped classroom. We categorized the academic into four groups as in Table 2.

Table 2 Four categories of academic who use SMT for T&L

Style	Attributes
Activist	Computer-literate, IT-savvy, pro-social media and enthusiast who engages in SMT obsessively with great attention to the last technical detail.
Resistant	Reluctant to try out the new technology.
Revert	Tried SMT but revert back to traditional teaching method or use blended learning for some reasons.
Novice	Vibrant, exploratory and dare to try out new technology.

Majority of academic in Higher Education today use social media as part of teaching is meant solely for communication, clarification, facilitation and explanations to complement the lectures in formal classrooms. It is a mean to disseminate information and documents to share with learners. But for 'official' documents and for required formality as well as submission of assignments, they prefer e-learning tools and Multimedia Learning Systems such as Morpheus or Blackboard. It is easy and practical to create a targeted group of users on social media such as Facebook and Twitter; hence it makes communication simpler as most students are connected to social media. Gen-Y learners today are fascinated and attracted by the use of ICT. The power of the social media enables them to engage learning in a more interesting and fun way to adopt new knowledge. It is essential to use this medium to have a better engagement with learners where their interest is built using ICT.

If social media is good, it is controversial, by its nature. Publicly accessed social media has its pros and cons. It may only provide limited benefits as an educational accessory because it was not originally designed to support T&L. Social media is not a private platform to share knowledge and that social media is not the best appropriate medium for T&L as it is not designed mainly for educational purposes. It all depends on the nature of the courses eventually. ICT-based courses such as

3D Animation, Web Design, Motion Capture, Visual Effects, Post-Production to name a few, might benefit from social media tools while some theoretical or practical-based courses such as Mathematics, Chinese Language, Music, Performance Arts may not as demonstrations of techniques by the instructors are very important whereas conceptual knowledge need to be imparted into the learners by detailed explanation in classroom environment. There must be matching 'culture-of-use' before adopting social media in T&L and with the right purpose.

7. CONCLUSIONS

In a nutshell, social media provides great opportunities for academic to empower their existing teaching and learning activities. Academic, either at personal level or institutional level is encouraged to consider employing this platform to enhance students' learning experiences. However, employing social media in instructional events should consider several perspectives during the planning of an instructional design such as learner's participation, engagement strategies and the evaluation to review the effectiveness of the teaching and learning activities.

Gen-Y learners now are very well exposed to social media in their daily encounter. Therefore, the contemporary teaching method should include this source of medium in a more conducive learning environment to promote higher order thinking and deep learning. Being Asians, local students may not be forthcoming with questions in the classroom as they are more timid in nature. Social media is the best alternative. Due to the hype most younger generations look at social media for interaction with each other. With the right context, guidance and facilitation, the level of online engagement may prevail. Social media provides this notion of avoiding face-to-face, direct communication, which may benefit subjects that are sensitive in nature.

Undeniably, it is the responsibility of the learners in using the social media wisely with etiquette. They should optimise their learning curve by using social media to collaborate with their peers as immersive learning experience will only take place through sharing of knowledge and resources. Social media is proven to be an effective tool in enhancing teaching and learning only if the users use it with the good intention and practice. It will cause more harm in learning if the users are immature by wasting their time and energy on social networking activities instead of learning. It is utmost important for the academic in Higher Education to inspire and motivate their students to engage in meaningful learning through their presence and support by using the technology of social media in their classrooms.

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