A Review on Use of Social Media in Teaching and Learning

Masarrah Abdul Mutalib masarrah2@live.utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia, Faculty of Education, Universiti Teknologi Malaysia, Malaysia.

Noor Dayana Abd Halim noordayana@utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia, Faculty of Education, Universiti Teknologi Malaysia, Malaysia.

Noraffandy Yahaya p-afandy@utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia, Faculty of Education, Universiti Teknologi Malaysia, Malaysia.

Abstract

Online learning are rapidly evolving in educational uses through social media. Previous research has identified the problem occured where the guidance for appropriate use of social media is needed so that can embark more effective and efficient learning environment. Social media has been shown to have a positive impact towards learner hence making the process of teaching and learning more meaningful. This is because social networking tools can provide opportunities for students to find information, collect their own material, communicate and interact towards each other. Therefore, this concept paper reviews the use of online learning through social media conducted by previous researchers. Besides, the advantages and disadvantages of implementing social media in teaching and learning also beeing reviewed. This review paper describe the use of online learning through social media and also its pros and cons compared to traditional media. As the conclusion, results from the previous research shows that, online learning through social media have a good feedback and advantages that can inline in education purposes.

Keywords: Social media; Online learning; Learning environment

1.0 Introduction

Use of social media is on the rise within education, both outside and inside the classroom (Blaschke, 2014). For integrating the technology in pedagogically meaningful ways, educators have needed to explore new teaching and learning theories as nowadays more educators integrate social media in their classroom. One approach that Blaschke (2014) could suggest is to encourage students to use social media actively in their learning and research. These bringing them a step closer toward becoming more self-directed learners and

expand the potential for them to develop the skills they need for creating a personal learning environment (PLE).

Tapscott and Williams (2010) in their study shown how social network applications can significantly improve student learning and knowledge acquisition, enabling them mutual interaction, cooperation, active participation, sharing resources and critical thinking. Social network/media technology in this context include Blog, Wiki, Facebook, Youtube, Twitter, online discussion forum and others.

2.0 Literature Review

Social media technology provides educators with an opportunity to engage learners in the online classroom, as well as to support development of learner skills and competencies (Blaschke, 2014). Therefore, a number of researchers have examined the use of specific social technologies in particular discipline settings in various regions (e.g., Alam, 2008; Zeeng, Robbie, Adams, & Hutchison, 2009; Kabilan, Ahmad, & Abidin, 2010; Bennett et al., 2012; Irwin et al., 2012). The next section explain more on the use of social media and its benefit.

2.1 Use of Online Learning through Social Media

Students nowadays can be described as 'members of the Internet generation' or 'natives of digital era' globally (Sanchez et al., 2014; Niculovic et al., 2012, 2014). They were born in the digital age and interacted with digital technology from their early age (Tapscott and Williams, 2008, 2010; Thompson, 2013).

In the early of implementing online learning, students' use of blogs, wikis, and social bookmarking. It trigger the interest to educators who perceive these technologies as beneficial in higher education (Kumar & Vigil, 2011). The students were required to read about the new technologies, engage with these new technologies as part of an assignment, and demonstrate their knowledge and understanding of the content unit by presenting it in a wiki, a blog, or podcast that they created.

There are many studies that demonstrate and guide teachers on how to use social media especially Facebook for classroom teaching and learning purposes. The study conducted by Kabilan et al., (2010) has proven that learning of English in Facebook is feasible. It is because the feature that characterize facebook are able to engage students in meaningful language-based activities, even though their initial intention of joining Facebook is to socialize. If educators or teachers planned appropriately as part of an educational project, it would be able to facilitate and produce effectual and meaningful learning of English within an online community of English language learners.

Similarly, Haverback (2009) observed and informally examined her students' creation and participation in an online learning community on Facebook to discuss assignments, ask and answer questions, post information, and support one another for their Reading Education Methods course. More specifically, some studies have explored the possibility of using social media in the context of curriculum related activities (Greenhow, 2011), suggesting that they are used as teaching tools in formal contexts of learning (Mazman & Usluel, 2010) and also in pedagogic practice, with particular focus on teacher presence and self-disclosure (Ranieri, Manca, & Fini, 2012).

Delello et al., (2015) has integrate the Web 2.0 technology PhotoVoice into their course. PhotoVoice is an online social media for participatory photography, digital storytelling, and self-advocacy projects. The findings shows that by using this

new technology, relationships were fostered, ideas were shared, and social connectedness was formed between classmates as well as with instructors.

On the other hand, YouTube provides an opportunity for student-generated media and viral advertising. One study of MBA marketing students required the creation of an Internet video posted on YouTube with the objective of maximizing the number of video views (Payne, et al., 2011). Most students ex-pressed enjoyment in creating the advertisement based upon entertainment, creativity, teamwork, and challenge. One of the advantages of social media in the classroom from a marketing perspective is its potential for viral marketing, meaning the voluntary sharing of information among users.

While according to Rinaldo et al., (2011), Twitter can be used to generate interaction in an online course or used to supplement a face-to-face course. In both environments, Twitter allows the instructor to develop a social presence among students and the faculty member. Table 1 shows the use of social media as a general.

Table 1 General Used of Social Media

Platform	Usage			
Wiki/ Blog (Duffy & Bruns, 2006)	 Develop research projects (collaborations project) For publishing course resources like syllabus and handouts, and students can edit and comment on these directly for all to see Used as a presentation tool in place of conventional software For group authoring 			
Facebook (2015)	 Connected with friends and family, To discover what's going on in the world, and To share and express what matters to them. 			
Youtube (2015)	 To discover, watch and share originally-created videos. Provides a forum for people to connect, inform, and inspire others across the globe and Acts as a distribution platform for original content creators and advertisers large and small 			
Twitter	 As an alternative communication tool for viral marketing (Thackeray, Neiger, Hanson, & McKenzie, 2008) Connect with friends and other people (Twitter, 2015) 			

2.2 Advantages and disadvantages of Social Media

In recent years, the use of social media has spread globally. Such effects are not only confined at the individual level but also at the organizationand social levels. Today, many individuals' private lives are linked to social media. Undeniably, social media enable individuals to access and connect to a boundless world to make friends, share information, access entertainment, and receive news. The use of social media in an appropriate manner can lead to improvements in the learning process of students through a better process of communication, interaction and cooperation on the social network. Some authors focus their work on how social media can affect the performance improvement of students (Dabner, 2012).

Faculty are these days using such technologies to all aspect of the university, whether its related to teaching or instead to other aspects of university life, as students use social media such as Facebook so extensively in their lives. One of the advantages of using Facebook as part of teaching is said to be quick and easy communication as it facilitates between teacher and student(s) (Bosch, 2009) and it is benefits to students' overall academic experience (Junco, 2012). Besides, these include encouraging active learning (Ajjan and Hartshorne, 2008; Mason, 2006), collaboration (Maloney, 2007; Mazman and Usluel, 2010), interaction, information and resource sharing (Mazman and Usluel, 2010; Wang et al., 2012), increased communication and discussion between teachers and students (Bosch, 2009; Browning et al., 2011).

In terms of active learning, research by Kassens-Noor (2012) suggests that Twitter can enhance active learning in higher education outside of the classroom, finding that Twitter enhanced communication and supported informal learning practices although it was noted that the character limits imposed with Twitter constrained critical thinking and self-reflection. Facebook is also viewed as having the potential to enable and support active participation and the critical thinking of students (Ajjan and Hartshorne, 2008; Mason, 2006).

While researcher could suggest the good and benefit, however, there are some researcher that argue about this matter. Slonje, Smith and Frisen (2013) state that spending hours on social media could lead to addiction, reduced motivation to participate in other activities, and perhaps cause physical health problems. Another downside of social media at the individual level is that users need to maintain their social pro-files constantly, which may lead to severe stress. More importantly, sharing too much information could allow personal information to be leaked on the Internet. Other disadvantage, might increase of cyber-bullying that can terrorize an individual and cause negative effects to his or her psychology. This influence has been identified as an important problem specifically amongst youth over the last decade.

Kirschner and Karpinski (2010) and Hew (2011) are also expressed their concerns on the possibility effects of social media used. Students can post inappropriate pictures of themselves on their profiles. Which later may cause rejection by potential employers. Other wonder whether the students who spend a lot of time on Facebook devote less time to active learning, and led to negatively effect their success in college. They also concern that students will become distracted and preoccupied with social media use.

Although these risks are legitimate, evidence of the positive effects of social media use in this and other studies (Junco et al., 2011) suggest that when the social media is well used, it has the potential to increase student engagement, involvement,

satisfaction, and grades as well as to prepare them for employment in marketing world. Social media can be a good way to engage students in experiential learning.

3.0 Objective

The objective of this review paper are to investigate the use of online learning through social media and to identify the advantages and disadvantages of implementing social media in teaching and learning environments. The method used to conduct this research are described next.

4.0 Methodology

This goal of this review paper are to identify the use of online learning through social media and the positive impact it gives toward learner in education setting. The following key words were used to search for related literature that have similar purpose with the present study: social media, online learning, learning environments, online education, and educational tools. We search the articles that were published from 2010 until present by using these databases: Science Direct, EdITLib, and Ebscohost. The criteria set for those article are each of the articles study the use of social media, pros and cons and the challenge that educators might faced when implementing in academic setting. Therefore, those article were believe suitable to the study following the criteria above, eventhough the search hit more than that. The result are presented in Table 2.

5.0 Result

Table 2 presents the use of social media in past studies, particularly on their research purpose, field and social media platform been used. Its shows that most studies involved students in higher education and from different field. The following section discussed the results.

Table 2 Previous studies of The Use of Social Media

Author(s)	Research Purpose	Field	Social Media Used
Liu, Y. (2010)	To investigate student's use of different social media tools, their perceptions and attitudes towards these tools, and their preference of social networking groups.		Facebook Forum Blogging YouTube Podcasting Twitter Wiki
Rinaldo et al., (2011)	To assess students opinions regarding its role in career preparation, traditional education goals, and the use of classroom time.	Marketing	Twitter
Hew, K.F	To study the use of Facebook	Education	Facebook

(2011)	by students and teachers.		
Ioannou, A. (2011)	To investigate the affordances of wikis to support collaborative learning in online settings, compared to current asynchronous threaded discussion tools.	Online Learning	Wiki
Prescott (2014)	To gain an understanding of how teaching staff at one UK university use Facebook, and their attitudes towards Facebook and online professionalism, in terms of the student–staff relationship.	Different field because its random (UK University)	Facebook
Blaschke (2014)	To explores the role of social media in promoting cognitive and meta-cognitive learner development while using a heutagogical teaching and learning approach.	Distance Education	E-portfolio Twitter Mind Mapping Googe Docs Diigo
Milosevic et al., (2015)	To identify factors that may motivate students to adopt and use the tools of social networks, especially Facebook (FB), for educational purposes	Technical	Facebook
Hamid et al., (2015)	To examine students' perspectives on the use of social technologies to support interactions in courses that have been taught face-to-face in Malaysian and Australian universities.	Computer Education Management IT Engineering Education Human Resource Information Systems	Blog Wiki Facebook Twitter Online Discussion Forum

6.0 Discussion

Liu. Y. study sought to identify the knowledge and trends of using 16 social media tools that included Facebook, Wiki, YouTube, Bulleting Board, LinkedIn, Blogs, Twitter, Podcasts, Virtual Worlds, RSS, StumbleUpon, Netlog, Delicious, Digg, Plurk, and Jaiku. Through an online survey, 221 students were asked to rate their knowledge level of each social media tool using a Likert scale. The result revealed that these social media is on top of the used: Facebook; Wikipedia; and Youtube, with the given reason: (1) using for social engagement; (2) as a direct communication, (3) speed of feedback (student-instructor relation) and (4) relationship building (peer).

In another study, Rinaldo (2011) used Twitter his class as he believes that introducing Twitter or any social media tool to students, has the potential to engage students with the emerging technology, increase the interaction between professor and students and broaden access to information related to course material. From the finding, the results demonstrate Twitter's benefits regardless of the skill level of users, whether students or professors. The quantitative and qualitative data presented provide evidence that Twitter can be a powerful and effective pedagogical tool in any classroom when students believe its use to be relevant to them and when students are properly motivated to use it. He also state that using Twitter in class serves to not only enhance course administration through announcements and direct communication with students but also to demonstrate marketing in practice.

Findings from Hew (2011) suggest that the use of Facebook is very little educational use because mainly students use it to keep in touch with known individuals and they tend to disclose more personal information about themselves on Facebook. This finding in line with Browning et al. (2011), whereby, its argue that academia has not embraced social media as an academic tool. They suggest this may be in part due to uncertainties regarding student perceptions about social media use in the classroom. It may be that students tend to use SNSs for more informal learning such as communicating with peers about course content but they are less interested in using these tools for more formal learning activities (Madge et al., 2010).

Another study by Ioannou (2011) was conducted with 21 graduate students enrolled in an online learning theories course. The results revealed in favor of wikis for collaborative case analysis. It demonstrate that, specifically, groups using wiki demonstrate higher levels of collaboration, characterized by new ideas, modifications, elaborations, questioning, and agreements. Also, group members using wiki contributed more frequently to the construction of their group essay. Meanwhile, threaded discussion groups produced more discourse coded as monitoring and planning and other content in the discussion area. As a general, wiki groups were more collaborative, rather than cooperative, compared to threaded discussion groups.

A study by Prescott (2014) shows that faculty/educators do not tend to use Facebook for teaching purposes, with only a small number of participants stating they did so. It is very few of faculty/educators used Facebook within their teaching eventhough they used it in their social lives. Therefore, the way that staff use Facebook within their teaching is consistent with the informal learning approach, viewed as the most valuable use of Facebook by students for educational and learning purposes (Madge et al., 2009)

Blaschke (2015) in her study indicate that students perceived specific social media in conjunction with a unique learning activity as influencing specific cognitive and metacognitive skills (constructing new knowledge, reflecting on course content, understanding individual learning process). Research also indicated an increase in student familiarity with using social media and their research skill had improved through the skill building activities in class. From this research, it is evident that social media alone is not the exclusive factor in influencing cognitive and meta-cognitive development in learners. Rather, it is the combination of the pedagogy in the course design and delivery, together with the technology, that creates the kind of nurturing environment for this development to occur.

Milosevic (2015) conducted a study that focus on the use of Facebook by Serbian students at BU example, the Technical Faculty in Bor (Serbia). The analysis of this study shows that the communication between peer and professors have improvement when Facebook were implemented as virtual classroom, thus providing support in task execution, quality improvement of educational process and expansion of the knowledge. Teaching staff (professors) shows support and willing to helps students use Facebook as virtual classroom because it is useful to students on their path to personal development and engagement.

Hamid et al., (2015) conducted a study to examine students' perceptions about using social technologies to interact with other students and lecturers for university coursework, drawing on focus group discussions with students from various universities and disciplines. Therefore, a total of nine focus group discussions with 46 students were held in Malaysian and Australian universities. The thematic analysis revealed that students identified a number of positive outcomes from using OSN to interact with each other and with their lecturers which is consistently with Odom (2010) research, using social media for educational purposes improving student's interaction.

7.0 Conclusion

As the conclusion, it is agreed that online learning through social media give a good feedback and advantages that can inline in education setting and of course with a proper guidance so that it is used appropriately. Eventhough sometimes it might be challenging while using social media in teaching and learning to instructors, but, when students becomes engage of their own learning, education will be successful through effective collaboration between educators and students.

Acknowledgment

The authors would like to thank the Universiti Teknologi Malaysia and Ministry of Higher Education Malaysia for their support in making this project possible. This work was supported by the Fundamental Research Grant Scheme (R.J130000.7831.4F604) initiated by the Ministry of Higher Education.

References

- Ajjan H and Hartshorne R (2008). Investigating faculty decisions to adopt Web 2.0 technologies: Theory and empirical tests. *Internet and Higher Education*, 11(2): 71–80.
- Alam, S.L. (2008). To wiki or to blog: Piloting social software technologies for assessment in a large first year Information Systems class. *Paper presented at the Australasian Conference on Information Systems, Christchurch, New Zealand.*
- Blaschke, L. M. (2014). Using social media to engage and develop the online learner in self-determined learning. *Research in Learning Technology*, 22(2014), 1–24. http://doi.org/10.3402/rlt.v22.21635
- Bennett, S., Bishop, A., Dalgarno, B., Waycott, J., & Kennedy, G. (2012). Implementing Web 2.0 technologies in higher education: A collective case study. *Computers & Education*, 59(2), 524-534.
- Bosch, T. E. (2009). Using online social networking for teaching and learning: Facebook use at the University of Cape Town. *Communication: South African Journal for Communication Theory and Research*, 35(2), 185-200. http://dx.doi.org/10.1080/02500160903250648
- Browning, L., Gerlich, R. N., & Westermann, L. (2011). The new HD Classroom: a "Hyper Diverse" approach to engaging with students. *Journal of Instructional Pedagogies*, 5, 1–10.
- Dabner, N. (2012). 'Breaking Ground' in the use of social media: A case study of a university earthquake response to inform educationial design with facebook". *Internet and Higher Education*, 15 (1), 69-78
- Delello, J. A., Mcwhorter, R. R., & Camp, K. M. (2015). Using Social Media as a Tool for Learning: A Multi-Disciplinary Study. *International Journal on E-Learning*, 14(2),

- 163-180.
- Greenhow, C. (2011). Online social networks and learning. On The Horizon, 19, 1, 4–12
- Hew, K. F. (2011). Students' and teachers' use of Facebook. *Computers in Human Behavior*, 27(2), 662–676. http://doi.org/10.1016/j.chb.2010.11.020
- Ioannou, A. (2011). Online collaborative learning: The promise of wikis. International *Journal of Instructional Media*, 38(3), 213–223.
- Irwin, C., Ball, L., Desbrow, B., & Leveritt, M. (2012). Students' perceptions of using Facebook as an interactive learning resource at university. *Australasian Journal of Educational Technology*, 28(7), 1221–1231
- Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. *Journal of Computer Assisted Learning*, 27(2), 119-132. doi:10.1111/j.1365-2729.2010.00387.x
- Junco, R. (2012). The relationship between frequency of Facebook use, participation in Facebook activities, and student engagement. *Computers and Education*, 58(1), 162–171. http://doi.org/10.1016/j.compedu.2011.08.004
- Kabilan, M.K., Ahmad, N., & Abidin, M.J.Z. (2010). Facebook: An online environment for learning of English in institutions of higher education? *The Internet and Higher Education*, 13(4), 179–187
- Kirschner, Paul A. and Karpinski, Aryn C. (2010). Facebook and academic performance. *Computers in Human Behavior* 26(6), 1237-1245. Retrieved from http://digitalcommons.kent.edu/flapubs/72
- Kumar, S., & Vigil, K. (2011). The net generation as preservice teachers: Transferring familiarity with new technologies to educational environments. *Journal of Digital Learning in Teacher Education*, 27(4), 144-153.
- Liu, Y. (2010). Social media tools as a learning resource. *Journal of Educational Technology Development and Exchange*, 3(1), 101–114.
- Madge C, Meek J, Wellens J, et al. (2009). Facebook, social integration and informal learning at university: "It is more for socialising and talking to friends about work than for actually doing work". *Learning, Media and Technology*, 34(2): 141–55. Available at: http://www.tandfonline.com/doi/abs/10.1080/17439880902923606
- Maloney E (2007). What Web 2.0 can teach us about learning. *The Chronicle of Higher Education*, 53(18): B26.
- Mason R (2006). Learning technologies for adult continuing education. *Studies in Continuing Education*, 28(2): 121–33.
- Mazman SG and Usluel YK (2010). Modeling educational usage of Facebook. *Computers & Education*, 55(2): 444–53.
- Milosevic, I., Zivkovic, D., Arsic, S., & Manasijevic, D. (2015). Facebook as virtual classroom Social networking in learning and teaching among Serbian students. *Telematics and Informatics*, *32*, 576–585. http://doi.org/10.1016/j.tele.2015.02.003
- Niculovic, M., Zivkovic, D., Manasijevic, D., Strbac, N., (2012). Monitoring the effect of Internet use on students behavior case study: Technical Faculty Bor, University of Belgrade. *Educational Technology Research Development*, 60 (3), 547–559.
- Niculovic, M., Zivkovic, D., Manasijevic, D., Strbac, N., (2014). Study of pathological Internet use, behavior and attitudes among students population at Technical Faculty Bor, University of Belgrade. *Computers in Human Behavavior*, 39, 78–87.
- Payne, N. J., Campbell, C., Bal, A. S., & Piercy, N. (2011). Placing a hand in the fire: Assessing the impact of a YouTube experiential learning project on viral marketing knowledge acquisition. *Journal of Marketing Education*, 33(2), 204-216. doi:10.177/0273475311410853
- Ranieri, M., Manca, S., & Fini, A. (2012). Why (and how) do teachers engage in social

- networks? An exploratory study of professional use of Facebook and its implications for lifelong learning. *British Journal of Educational Technology*, 43(5), 754–769. http://doi.org/10.1111/j.1467-8535.2012.01356.x
- Rinaldo, S. B., Tapp, S., & Laverie, D. A. (2011). Learning by Tweeting: Using Twitter as a Pedagogical Tool. *Journal of Marketing Education*, 33(2), 193–203. http://doi.org/10.1177/0273475311410852
- Sanchez, R.A., Cortijo, V., Javed, U., (2014). Students perceptions of Facebook for academic purposes. *Computer Education*, 70 (1), 138–149.
- Slonje, R., Smith, P. K., & Frisen, A. (2013). The nature of cyberbullying and strategies for prevention. *Computers in Human Behavior*, 29(1), 26–32. http://doi:10.1016/j.chb.2012.05.024
- Tapscott, D., Williams, A.D., (2008). Wikinomics: How Mass Collaboration Changes Everything. Atlantic Books, London, UK.
- Tapscott, D., Williams, A.D., (2010). Innovating the 21st century university: it's time. *EDUCAUSE Rev.* 45 (1), 17–29.
- Thackeray, R., Neiger B. L., Hanson, C. L., & McKenzie, J. F., (2008). Enhancing promotional strategies within social marketing program: Use of Web 2.0 social media. Health Promotion Practice, 9(4): 338-343
- Thompson, P., (2013). The digital natives as learners: technology use patterns and approaches to learning. *Computer Education*, 65 (1), 12–33.
- Wang Q, Woo HL, Quek CL, et al. (2012). Using the Facebook group as a learning management system: An exploratory study. *British Journal of Educational Technology* 43(3): 428–38.
- Zeeng, L., Robbie, D., Adams, K.M., & Hutchison, C. (2009). Where's my class? Using Web 2.0 for collaboration in a design environment. *Paper presented at the ASCILITE Auckland. New Zealand.*

Author(s):

Masarrah Abdul Mutalib

masarrah2@live.utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia,

Faculty of Education,

Universiti Teknologi Malaysia, Malaysia.

Noor Dayana Abd Halim

noordayana@utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia,

Faculty of Education,

Universiti Teknologi Malaysia, Malaysia.

Noraffandy Yahaya

p-afandy@utm.my

Department of Educational Sciences, Mathematics and Creative Multimedia, Faculty of Education,

Universiti Teknologi Malaysia, Malaysia.