

# The mediation factors influencing adoption of social networking technology into 21<sup>st</sup> century education: A review of the literatures.

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## Abstract

Nowadays, more than a billion individuals around the world are connected and networked together in the digital environment in order to create, collaborate and contribute their knowledge, wisdom. One of the potential tools to connect with other people on a massive scale is a social networking website or social media. Moreover, it has been rapidly adopted by people worldwide; enabling the opportunities for learning, presenting and construction of relationship among the members and it is one of the most widespread adoptions in a new generation of 21st century education. Before there is no place for lecturing in the 21st century classroom, educational institutions have to adapt themselves to compete in the new era of education also have to find the efficient ways to reach their target students, when used social media tools appropriately and wisely, teacher, students and classrooms are transformed into the rich interactive environment. The documentary research method has been adopted in this academic paper. The finding has shown that educational institution factors which are organizational culture, management support, Intellectual property and organizational policies; teaching factors which are content, method, process, technology proficiency, training and knowledge of resource; personal factors which are technology proficiency, experience, attitude, motivation and confidence play an important roles toward the success of adopting social networking in 21st century educations.

**Keywords:** Management Information System, Social Networking and 21st Century Education

## Introduction

Nowadays, more than a billion individuals around the world are connected and networked together in the digital environment, the major reason for these millions of users are the social presence and group norm that have the strongest impact to use social media, these support the fact that most of the people connect to get an instant communication, connection with their friends, news and entertainments (Cheung, Chiu & Lee, 2010). Moreover, it has also increased communication channels that help to reach a wider audience and can be conveyed to different forum, thus it has also improve the collaboration between team members in an organization which has resulted in a better outcome (Edosomwan et al, 2011). Also support interpersonal communication and collaboration by using Internet-based platforms, the best known of these services are Facebook, LinkedIn and Twitter which are used by several hundred millions of the people worldwide in each websites and services (Kane et al, 2014). Social media also holds great potential to connect with and among people on a scale nearly unimaginable (Tillman et al, 2013), with these advantages, many businesses have used social media to create brand awareness, recruiting and learn their competitors. (Ramanigopal, Palaniappan and Hemalatha, 2012). It has also been rapidly adopted by people worldwide; enabling the opportunities for learning, presenting and construction of relationship among the members and it is one of the most widespread adoptions in a new generation 21st century education (Livingston & Brake, 2010).

While the technology is an essential component of everyday life, social media is becoming the second nature to our students which referring to

the group of young generation today that involves in the use of Information Communication and Technology (Greenhow, 2009). The significant growth of the wireless and mobile computing technologies has caused the conversion of the delivery of knowledge through digital learning and there is a need to make a bound of education industry by suiting the teaching and learning to this social media generation's experience and abilities (Bidin & Ziden, 2013). Thus, in this situation, there will be no place for lecturing in the 21st century classroom (Steinmetz, 2013). Therefore, educational institutions have to find the ways to reach their students, when used social media appropriately and wisely, teacher, students and classrooms are transformed into the rich interactive environment (Huffman, 2013). Also enhance student's self-directed learning skill (Rampai, 2013). But many educational institutions have been reluctant to use social media technology, and also shied away to using the digital networking platform which can increase the opportunities for learning, collaboration, and knowledge sharing (Klopfer and et al, 2011). Therefore this paper will provide a finding for the educational institutions to have more confidence in a social media practice, also to highlight key success factors, pros and cons of using social media. Thus the finding of this paper could create a greater awareness on of using social media in the 21st century educations.

## Digital environment and 21<sup>st</sup> century education

In this digital environment, social media became a part of our global culture with high impact on our everyday lives, with social interaction among members; social media has also received certain credits among academic researchers for its poten-



tial in improving learning environment, there is a number of studies supporting the idea of using social media for educational purposes, improvement of learning experience, and student motivation (Draskovic et al, 2013). At the same time, using the social media for educational purposes has become widespread practice in educational institutions; it can facilitate collaboration, networking among students, participation which is strongly effect to the online learning experience (Tervakari et al, 2013). Support from the study of Pheeraphan (2013) who has shown the finding that pedagogies of Information and Communication Technology (ICT) integration can enhance and transform learning because of the dynamic content presentation, access of information, creation and sharing, interaction and reflection. Thus, these are necessary for 21st century students who are expected to become a productive digital people together with analytical skill, collaboration, communication with other, and ICT literacy. Social media are also the part of academic institution future recruitment strategies. In the past, recruitment has been done by making presentation to undergraduate class and their target group, producing print media for distribution, and meeting between interested students and faculties. it was also the fundamentally changed how teenager receive and process information (Margerison, 2013). Moreover, social media could focused on supporting relationships between teachers and their students are now used for learning, educator professional development and content sharing. (Ramanigopal, Palaniappan and Hemalatha, 2012). In addition, social media has the potential to impact pedagogy, it can offer new options for interaction, allow the students to express about course content, feedback and online discussion forum is also

facilitation multiple routes of communication in education, innovation and empowering (Tillman et al, 2013). Support from the study of Barzegar, Farjad and Hosseini (2012) who have studied on 234 students in Tehran has shown the finding that by using the teaching method based on multimedia and network, the amount of the students learning has significantly higher than the situation in which the traditional teaching method was used. also increasing in the student's activity, participation, interest and creativity (Barzegar, Farjad and Hosseini, 2012).

The social media technology gave students direct access to the knowledge base and enabled teachers as the learning facilitators, also helping student to access, interpret, organize, synthesize and apply information rather than directing student to memorize for the exam. Thus, the technology facilitates communication among student, teacher, family and expert which can promote the development of student-centered learning environment (Hirumi, 2011). Also it has changed the web browsing culture from passive to participatory with easily created content by users, the educators can adapt the informal learner-centered pedagogies that empowering 21st century learners, best suit to individual learning styles, increase academic success and increase participation beyond designated class time (Rodriguez, 2011). Moreover, the benefit of using technology in the classroom are increasing the following factors: digital literacy which is the ability to communicate with community to discuss, gather information and seek help, global literacy which is the capacity to read, interpret and contextualize message from a global perspective, technology literacy which is ability to use information technology to improve learning, productivity and

performance, information literacy which is the ability to find, evaluate and synthesize information (Robin, 2008).

On the other hand, the study of Odom and et al (2013) has shown the finding that student reported both advantage and disadvantage in regards to use of social media tools in the classroom, advantages included increase quality and efficiency of communication, ease of collaboration and stronger social connection, disadvantages included distraction, loss of classroom interface and problem with internet access (Odom and et al, 2013). Also, social media is a virtual social world that the member can make friends, exchange photographs, strike business deal, argue and quarrel but the users have to careful to stay secure and safe, security is one of the top most concerns of social media sites since it allows you to display your personal information such as name, phone number and location (Ramanigopal, Palaniappan and Hemalatha, 2012). One of the disadvantages that social media may bring in a classroom setting is distraction, if an instructor fully integrate social media, it would defeat the purpose of students sitting in a classroom and it would feel more like an online class which take them away from professional setting (Odom, 2013). The pedagogical affordances when practiced by the lecturer will promote student engagement, expand relationship and improve communication skills (Hassan and Landani, 2013).

### Mediating factors to success adopting social media in the 21<sup>st</sup> century education

The success is not what technology you use that counts, but what the learner can get is really matter, how learners interpret, understand and

internalize the learning material via technology is what the focus should be on (Dror, 2008). The five ingredients impacting student motivation are student, teacher, content, method/process and environment (William, 2013). The design of the instruction makes the different in learning, not the media used to deliver the instruction (Hirumi, 2011). An overview of the concerns factors according to the study of Klopfer and et al (2011) have shown the finding that the success depended on the educational institution (organizational culture, management support, and technology infrastructure), teacher (technology proficiency, pedagogy-tech proficiency and knowledge of resource) and students (technology proficiency, experience and attitudes) (Klopfer and et al, 2011), other key considerations for the educators are the ownership and Intellectual property, accessibility and stability of technology (Rodriguez, 2011). The strong leadership is needed to encourage the correct use of the technology, provide support throughout and systematically integrate the use of technology for instruction, integrating technology is much more than putting a piece of software into a classroom (Robin, 2008). It should be integrated into overall communications efforts, while a coherent communication strategy includes four key components which are defining the organization's overall strategy for the communication, analyzing the relevant constituencies, delivering messages appropriately and analyzing constituent responses to determine whether the communication was successful (Argenti, 2010). It was evident that educational institution who use social media have to develop the policies for students and faculties that specify the legal and ethical consequences of using social media, in addition, the policy should



state who will have access to faculty's social media website, who are allowed to screen the content and right to remove content (Tillman et al, 2013). Many barriers limit educator's use of technology, one of the most critical issues toward emerging technology is teacher's attitude and pedagogical (Yu, 2013). Because the role of teacher will change as the facilitator of learning, hence they need to have solid understanding of what 21st century teaching and learning look like (Donovan et al, 2014). Therefore, existing and new instructors have to develop competencies in emerging technological teaching tools or losing the attention, interest, excitement from the students, while most of the challenges and concerns are time spent on class preparation, social media cost, uneven access technology (Ralph, 2013). Instructor familiarity, confidence and skill in choosing software and integrating technology into the curriculum are dependent on teacher training and time for self-directed exploration and learning, due to the relative newness of computer technology, many teachers have not received adequate training to select appropriate technologies and lack support to use them (Robin, 2008). It is also recommended that in-class training in the use of social media outlets may be beneficial for the success of some students, this would be difficult for students to use social media in class and only focus on it, these could be damaging the valuable classroom interface (Odom and et al, 2013). Also support from study of Thongmak (2013) has shown the finding that social media can be used to support both distance and to fulfill physical classroom learning. Application of the social media provide a wide range of benefits which are collaboration, resource sharing, new experience. Thus the main

importance factors depending on instructor who have to emphasize the benefit of using social media in the classroom, educate students how to use the unfamiliar social media application's features, encourage the online collaboration environments (Thongmak, 2013).

Another research finding has shown that professors and students prefer more formal communication via email or in person but they welcome the use of social media as a way of content sharing, creation of student-generated content and improve classroom experience (Draskovic et al, 2013). Thus network teaching model in the classroom would offer comfortable learning environment for the learners, offer good media carrier, enhance learner's interest and enthusiasms, enhance the teaching quality and student's ability of applying knowledge in practice (Barzegar, Farjad and Hosseini, 2012). The most important factor is the finding the solution the students who are already inundated with attention, these form of distraction, the digital devices of instant gratification that have inundated 21st century education are eroding your students' cognitive ability to focus on the lecture, and there is very little space for the lecturer, as short explanatory note or reading are assigned to student before class and then classroom time is used to answer questions, practice and engage with the material (Steinmetz, 2013). But some students are procrastinate and did not prepare before class, the research result has shown that 50 percents of the samples who are the students in Tampere University of Technology, Finland, agreed teachers are challenging to motivate students to avoid procrastination, while offering the students' possibilities to earn extra points to be added to

their final scores proved largely ineffective. some of the students seemed to be active procrastinators making a conscious decision to procrastinate where as the other the passive procrastinators seemed to have problems to complete their task on time, the main reasons for procrastination were affected by the following factor: firstly, pressure due to other courses and task, secondly, personal’s attitudes such as inefficiency and laziness, thirdly, external pressure as a motivating factor. Fourth, working habit which is the tendency to complete the assigned task on time, but submitted late after reading the answer of other students. (Tervakari et al, 2013).

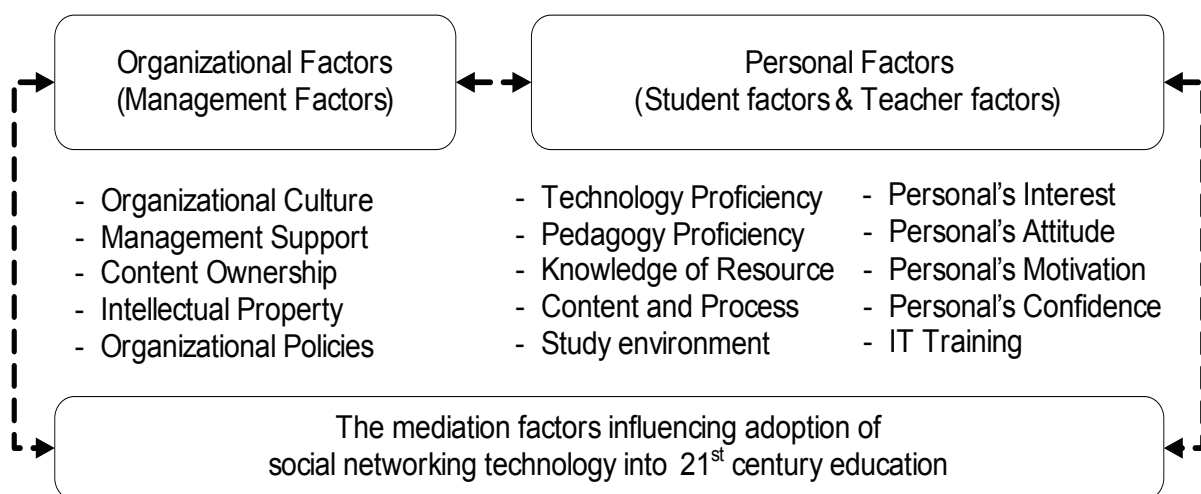
Therefore, the success integration of Information and Communication Technology into teaching the following factors play important roles which are: Personal factor (feeling, knowledge and attitudes) towards technology influence their acceptance of the useful of ICT into teaching, Organizational level (support, funding, training) teacher’s professional development is a key to success, and Technological factors (Buabeng-Andoh, 2012).

## Conclusion

The educational system must be responsive to the 21st century educations in order to keep knowledge alive because students these days are digitally literate and use significant time on their social networks. Therefore, educators must provide learning experiences integrating technology and keeping up with their student who are exposed to social media. Academic institutions have to see social media as an opportunity and effective learning tool to maintain student interest and engagement. There are also many of mediating factors in both organizational and personal that influence to the success of adopting the social media into 21st century education as shown in figure1.

## Recommendation

Many researchers have shown the finding that the success of using social networking technology into 21st century education consist of many factors which are organizational factors (management factors) and personal factors



(Barzegar, N., Farjad, S., and Hosseini, N., 2012; Klopfer et al, 2011; Robin, 2008; Rodriguez, 2011; Ralph 2013; Odom et al, 2013; Tillman, 2013; Thongmak, 2013; William, 2013; Yu, 2013)

Figure 1. The mediation factors influencing adoption of social networking technology into 21st century education



(teacher and student). While the majority 67% of Information technology practice failure is caused by organizational process, people in the organization and business strategy while only 33% failure by technology problems (Band, 2009). Thus the mediating factors also play an important role toward the success of adopting social networking in 21st century educations. For the organizational factor, it also required to have support from the top management, organizational culture and technology infrastructure that can guarantee the accessibility to the content, together with the policy and intellectual property of online and shared content. Other important players are the personal factors (teacher and students factors), for teacher factor, they required to have ability to use the technology for pedagogies and lessons, ability to find the resource for distribute knowledge to their student, confidence to use the Information Technology, positive attitude toward the Information Technology medium, If there is a lack of these factor, educational institution have to provide the training course in order to have more Information Technology and social networking skill, also time spent which is the efforts and intention of teacher. For the student factors which supported by their interest and

attitude toward the 21st century education concept, motivation, learning process and study environment are also effect to the success of each individual student. Thus, all of these mediating factors are the management concerned factors that could increase the percentage of success and these model could be applicable for any related industries that looking forward to adapting new Information Technology or social networking concept in their organization. Apart from personal and organizational factors in this research: policies, organization's target, organizational size, employee job fit, job satisfaction, the ability of the organization and employees to manage change, level of employee stress, job design, role clarity, work overload, empowerment. These variables may directly affect the utilization rate of employees and organizations that are to adopt new Information systems. Hence, it would result in the better performance of their works and student's education. For the further study, the researcher would like to bring this conceptual model to apply in both of qualitative and quantitative study which will select the target sample form higher education institutions who looking forward to adopting 21st century classroom concept.

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