THE IMPACT OF SOCIAL MEDIA ON STUDENT LEARNING
CASE STUDY: SMA YAPITA SURABAYA

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Abstract—Nowadays student and teacher in Indonesia have a massive use of smart phones, tablet and other portable device. All these smart phones and other portable devices are equipped or ready for social media applications like Facebook, Twitter, YouTube, WhatsApp, and Instagram which are part of what is known as Social Media. Social media is a popular method for communication amongst students in Indonesia. However excessive social media use can raise questions about whether academic performance is affected. This paper aims to investigate the use of social media in teaching and learning as a scaffolding tool, and the impact of that on teachers and students with case study SMA Yapita Surabaya. The study implemented a 30-item questionnaire aimed to investigate student’s views in smart devices use and access, the current use of social website, the use of the web, views of the impact of social media on education, and views of possible impact of official use of social media on learning. It’s apparently that smart phone is the best possible device to enhance the use of social media in education, where more than three quarters of students have smart phones. For the internet access, 79% of students have internet access on their smartphone, and only 32% of them who have internet access at home. In regards the social media application, it is clear that Facebook as a main tool, with 89% of the student use this application. At the end, this research concludes that the teacher and the students need a series of training session to evaluate their own use of social media, and to enhance their abilities to use available properties.

Index Terms— academic performance, education, formal education, informal learning, social media,

1. INTRODUCTION

Interaction and information technology have reshaped our live today. Nowadays student and teacher in Indonesia have a massive use of smart phones, tablet and other portable device. Moreover, they are looking for cutting edge technology. However, the device generally is not used in a manner way. All these smart phones and other portable devices are equipped with social media applications like Facebook, Twitter, YouTube, WhatsApp, and Instagram. The role of emerging social media may offer new opportunities to enhance the teaching and learning experiences [1].

The education field has gone through significant changes over past few years. With the development in technology, that have helped to design better and more advanced learning tools, new subject have been added to the educational programs and teaching methods have been evolved [2].

The traditional learning requires daily social interactions between student and teacher from one side, and from other side between student and the daily life events. Schools aim to develop and to support methods to improve the effectiveness and efficiency of interaction and collaboration among students, and with their teacher [1]. Most of web social media tools have been developed in order to maintain manage and improve social interactions between people where people can easily access, reuse or comment on content that is authored by others. The evolving learning environment is allowing students to learn anytime and anywhere. Those social network or social media are becoming more and more influent and widely spread. Based on The Wall Street Journal, the user of Facebook in Indonesia until June 2014 reach out

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69 million people and this number still increase day by day [3]. In fact they are the new tools of the digital generation. They affect a very large public composed of children, teenagers and adults, and give opportunities to better communicate in a community and to create close links with people around the world [4].

One of negative aspects of using social media technologies is minimize the active participation of the learner [1]. In fact, such technologies are developed so that they can work for any learner, regardless of the motivation or the ability of the particular learner. Technologies for learning are essentially teaching technologies structured to reliably deliver and measure outcomes regardless of the context or the situation of the learner [5].

This paper aims to investigate the use of social media in teaching and learning as a scaffolding tool, and the impact of that on teachers and students with case study YAPITA Senior High School Surabaya. The paper argues that students can learn from informal learning situations, using what is available in student’s hand, to build meaningful learning experiences.

The paper is structured as follow. First it will present an overview on how social media has gained momentum in today’s world and educational system and how students have used these networks to communicate better. Secondly, this paper will present previous studies related with the impact of social media in education and will be continue with methodology that used and last the discussion about the result.

II. RELATED WORKS
There are several previous study about the impact of social media in education as follows:

- A study of multimedia and its impact on student’s attitude written by Dr. Savita Srivastava. This paper aims to investigate the correlation between multimedia technologies development and the augment to the existing curriculum, allowing both immediate enhancement and encouraging further curriculum development [6].
- Social media and the impact on education written by Magda Chelly and Hana Mataillet, WinAkademy Soutien Scolaire. This paper aims is to describe the impact of the social media on education and home schooling or tutoring. The new technologies are used by children every day for different purposes. Writer tried to analyze the use of these new technologies through social media in educational organization [7].
- A statistical analysis of impact of social networking media on higher education written by Pankaj Singh Yadav and Pranav Srivastava, Department of Computer Science and Engineering, Mahamaya Technical University. This paper is intended to find out the impact of social networking media on higher education for which usage pattern of popular media like Facebook, Twitter, Blogs, etc. had been recorded with respect to faculty and student. Then statistical techniques have been used to find the impact index which represent the actual force of media on higher education. This paper also elaborates that how social networking media can be used as a educational tool and what should be kept in mind while using these media [8].
- The impact of social media networks on enhancing student’s performance in online learning system written by Ahmed Dagroug, Mohamed Abo-Rizka and Abd El-Fattah Hegazy from Arab Academy for Science and Technology Cairo, Egypt. The aims of this paper is to analyze the student’s behavior in online courses. The output of the research is to propose a framework for course personalization based on Felder-Silverman for each learning styles and how course presentation will differ according to the learning style [9].
- Impact of social media usage on students’ academic performance in Saudi Arabia written by Esam Alwagait, Basit Shahzad and Sophia Alim from College of Computer and Information Sciences, King Saud University, Riyadh, Saudi Arabia. This paper aims is to find the correlation between the usage of social media and this
effect to academic performance of university students in Saudi Arabia. The findings of the paper can be used to propose the effective plans for improving the academic performance of the students in such a way that balance in the leisure, information exchange and academic performance can be maintained [5].

III. METHODOLOGY

The study conducted on the fifth semester of the school year (2014/2015) of YAPITA senior high school Surabaya, and the study implemented a closed-end questions questionnaire, with 30 statements.

The questionnaire were constructed based on previous study entitled Exploring the Use and the Impact of Social Media on Teaching and Learning Science in Saudi by Saleh Abdullah Alabdulkareem from Curriculum and Instruction Department, College of Education, King Saud University, Riyadh, Saudi Arabia [1].

The study conducted on the fifth semester of the school year (2014/2015) of YAPITA senior high school Surabaya, and the study implemented a closed-end questions questionnaire, with 30 statement to solicit information about the current use of social media in learning and view the usefulness of the social media as informal education tools, besides its effects on the student learning experience.

Basic demographic questions regarding previous experiences and training in the use of ICT, possession of owning smart phone and similar devices, were also included.

The methodology that used in this research can be described as follow:

A. Define the object of research

After the literature study is collected, the next thing to do is define the object of the research. The object will be used as sample in this research. Researcher decided to use YAPITA senior high school as the object of the research. YAPITA senior high school is located at Jl. Arief Rahman Hakim No. 19 Keputih, Sukolilo, Surabaya.

B. Create the questionnaire

After decided the object, the next step is to create the questionnaire. The questionnaire was construct to solicit information about the current use of social media in learning and view the usefulness of social media as informal education tools, besides its effects on the student learning experience, build based on the paper entitled Exploring the Use and Impact of Social Media in Teaching and Learning written by Saleh Abdullah Alabdulkareem from Curriculum and Instruction Departement, College of Education, King Saud University, Riyadh, Saudi Arabia.

C. Survey

We carry out a survey that aimed to investigate students position and view in regards: smart devices use and access, the current use of social websites, the use of the web, views of the impact of social media on education and views of possible impact of official use of social media on learning. After creating the questionnaire, it is distributed to the object of the research, whom are the students of YAPITA senior high school in second grade majors Science.

D. Data Analysis

After doing the survey, the results of the survey is processed and analysed to show the result of the research. The data are summarized and graphed so that the information found clearer.

IV. RESULT AND DISCUSSION

The students respond to questionnaire 30 statements, presented in tables 1 to 4

The instrument is a 30-items closed-end questionnaire, the answer for statement from 1 to 30 were chosen from Yes and No position. The sample of the students was 58, with details of the number of males are 31 and number of females ware 27 students. The range age from 15 - 19 years old. Here is a diagram shows the demographic of the explanation above:
Fig. 1 Demography of the respondents

Fig. 2 Range of ages of the respondents

Questions 1 to 8 aimed to investigate the student’s smartphone and computer access and competency profile, while statements 1 to 18 targeted students use of social websites.

A. Smart Phone and Computer Access and Competency Profile

Table 1 presents the basic demographic characteristics of the sample. Questions 1 to 8 are based on previous experiences and training in the use of ICT, possession of smart phones and similar devices.

<table>
<thead>
<tr>
<th>No</th>
<th>Access and Competency Item</th>
<th>Students (n=58)</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Has done a basic course in computer science, ICT, etc.</td>
<td>50</td>
<td>86</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>Owns smart mobile phone</td>
<td>46</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>Owns a tablet/iPad</td>
<td>14</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>Owns an e-book reader</td>
<td>17</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>Owns a notebook</td>
<td>22</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td>Owns a desktop for personal use</td>
<td>10</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td>Have internet plan in smart phone</td>
<td>46</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td>Have internet access at home</td>
<td>19</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Access and Competency Item

According to Table 1, most of the ICT knowledge, where 86% students had such training. It indicates that school provides the students with any kind of training using computers or smart phone either for educational purposes or other purposes.

For question number 2 the majority of students have a smart phone (79%). Thus, it is a great opportunity for supporting smart phones in education. Furthermore, 24% of students have tablet/iPad and 29% student using an e-book reader.

Unfortunately, only 37% of students have a laptop or notebook, and just 17% students own a desktop for personal use. But at the best, 79% of students have internet plan in smart phone and just 32% of the students have a good internet access at home. So, the majority of the students have easy access to internet by their smart phone all the time.

B. Student's Use of Social Websites

After that, a list of questions that are related to Social media are delivered to the students and then presented in Table 2 and 3.

<table>
<thead>
<tr>
<th>No</th>
<th>The use of social websites item</th>
<th>Students (n=58)</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9</td>
<td>Is registered in a social network site “educational forum”</td>
<td>17</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Q1 0</td>
<td>Is registered in Facebook</td>
<td>52</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Q1 1</td>
<td>Is registered in Twitter</td>
<td>20</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Q1 2</td>
<td>Is registered in Instagram</td>
<td>22</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>Q1 3</td>
<td>Is registered in WhatsApp</td>
<td>16</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>Is registered in</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Q9 in Table 2 shows the familiarity with social network sites “educational forum”, 29% of students registered at least at an educational forum. On the contrary, 89% of students already registered at Facebook. And just 22% of students have an active email and use it frequently. For Q18, regarding publishing anything on YouTube, only 24% of students answered yes.

The ranking of use of social media applications (Q10 to Q16) from the highest to the lowest as follows: Facebook (89%), Instagram (37%), Twitter (34%), WhatsApp (27%), Path (10%), Snapchat and Skype (3%).

It’s clear that the almost students use Facebook (79%) as their main social media application. And then the second is Instagram with 37% of the students, as a visual interaction. The third popular application for the students is Twitter, 34% of the students use it as their social media to share their thought. WhatsApp is used by 27% of the students as their social media application in their contact with others. The rest application which is used by the students is Path (10%), following by Snapchat and Skype (3%).

The ranking of use of social media application is shown at figure 1 as follows:

Table 2. Student’s Use of Social Websites

<table>
<thead>
<tr>
<th>Q1</th>
<th>Students (n=58)</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Plays games on the internet frequently “more than once a week”</td>
<td>26</td>
<td>44</td>
</tr>
<tr>
<td>0</td>
<td>Ever looked up a science or health information on the Internet</td>
<td>45</td>
<td>77</td>
</tr>
<tr>
<td>1</td>
<td>Is familiar with public social network sites “educational forums, Facebook, Twitter, etc”</td>
<td>22</td>
<td>37</td>
</tr>
<tr>
<td>2</td>
<td>Is familiar with Blogs and Wikis.</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Surfed YouTube frequently “more than once a week”</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Willing to use the Internet to buy something</td>
<td>18</td>
<td>31</td>
</tr>
<tr>
<td>5</td>
<td>Use Google and Google Scholar regularly for studies</td>
<td>46</td>
<td>79</td>
</tr>
<tr>
<td>6</td>
<td>Social media has had such an impact on enabling my interaction with</td>
<td>47</td>
<td>81</td>
</tr>
</tbody>
</table>

Fig. 3 Comparison of social media application used by the students

C. Student’s Current Use of the Web

Table 3 statements are related to the study first question as well, which concern the current use of social media by the students.
students and teacher in issues not related to study

Table 3. Students Current Use of the Web

From table 3, it is clear that about 44% of the students play games on the internet frequently and the rest use internet for other purpose. For question number 20, its surprised because that about 77% students use internet for look up a science or health information. It indicates that most of the students know how to use internet in proper way. Most of them already know how to search information that useful for them.

Unfortunately, only 37% of the students are familiar with public social network sites “educational forums, Facebook, Twitter, etc. and just 25% of students that familiar with blogs and wikis. Only 20% of the students surfed YouTube frequently “more than once a week”, and only 31% of them that willing to use the Internet for buying something. But at the best, 79% of the students use google and google scholar regularly for studies and about 81% of them agree that social media has had such an impact on enabling their interaction with students and teacher in issues not related to the study. So, it is clear that most of the student still use internet just for searching use Google and Google Scholar. Just a few of the students that explore the use of internet for other purpose that not related with Google, like surfing on YouTube, join social network sites like educational forums on Facebook and Twitter, and most of them is not willing to buy something use internet.

But the good news is, most of the student agree that social media has had such an impact on enabling their interaction with teacher in issues that not related to study. It’s a chance for the teacher to maximize the use of social media for teaching and learning proses and increase the communication between student and teacher about issues that related to the study.

D. The impact of social media on Student learning

Table 4 statements are aimed to see how far students see the impact of social media in education.

Table 4. Impact of Official Use of Social Media on Learning

From table 4, 87% students agree that the use of social media on learning items can increase their motivation and engagement with course material. About 77% students agree that the use of social media can increase student-to-student collaboration. It eases the communication between students. If it uses in proper way, for discussion about study maybe, of course social media become a powerful tools and innovation to the learning system in Indonesia.

For question number 29, about 82% students agree that the use of social media can enhance interaction between student and the teacher, and almost all of the student (92%) agree that the use of social media accelerate data and information sharing.

V. CONCLUSIONS

Based on the basic characteristic of student of YAPITA senior high school, and the answer of study question part A, it’s apparently that smart phones are the best possible device to enhance the use of social media in education, where more than three quarters of students have smart phones. It is only 25% of students who have tablets, IPad, Notebook or computer for personal use. For the internet access, 79% of students have internet access on their smartphone, and only 32% of them who have internet access at home. In regards the social media application, it is clear that Facebook as a main tool, with 89% of the student use this application.
On the controversy, from the answer of study question part B, almost a half of the students use internet for play games, and only 37% of them who familiar with public social network sites, only 25% of them who familiar with Blogs and Wikis, 20% of then who surfing YouTube frequently and only 31% of them who willing to use internet to buy something. We can come to a conclusion that our students are not using the smart phones in an appropriate way.

Furthermore, from the answer part D, we can conclude that students are willing to use social media in teaching and learning, and they believe that such use will enhance their experiences in learning, increase their motivation, increase student-to student collaboration, enhanced interaction between student and teacher, and also accelerate data and information sharing between students.

The researcher suggests that both, the teacher and the students need a series of training session to evaluate their own use of social media, and to enhance their abilities to use available properties. This is the first step before thinking of implementing the use of social media officially.

REFERENCES


