

Pedagogical Use of Social Media and Mobile Devices: the Students' Point of View

Marsha Q. Superio, Juanita Cruz, Michel Plaisent, and Prosper Bernard

Abstract—In preparation for their careers, students today learn quite differently from how their teacher's did. Life is dominated by social media and/or mobile devices. This study aims at presenting an initial overview on the actual use of social media for learning based from the students' point of view. The main objectives for their usage and feedback on their effectiveness were investigated. In order to collect empirical data, a questionnaire was designed and pre-tested in a Philippine college. A web survey was used as an efficient method of data collection. Data revealed that students asked for greater usage of Social Media and mobile devices in order to satisfy their academic needs which are related to logistics for home works. This exploratory study is the first step of a wider research that will compare data from some other higher educational organizations in different countries.

Keywords— Social Media, Learning, Mobile Devices, Pedagogy.

I. INTRODUCTION

TODAY, students learn quite differently from their teachers, as stated by Warlick (2012): 'We teach in a time of rapid change, when, for the first time in history, we are preparing our students for a future that we cannot clearly describe. Among these new technologies, it appears that Web 2.0 and social media will be used more and more (Wheeler, 2010). Wenger's (1998) work on communities of practice suggests that the new generation of students rely more on social media for all aspects of their life, including academic concerns. Clearly social networking and mobile devices are going to continue to dominate the lives of our students, particularly the younger students entering our institutions (Kennedy, 2009). Collaborative setting can improve learning and significantly enhance students' interest and motivation (Ru-Chu Shih, 2011). France Science Academy has decided to support the use of mobile devices in classrooms for learning.

Nevertheless, the technologies of information and communication are making their entry into the learning process. Social media, i-pad and smartphones may soon be the most useful tools for tomorrow's workers (Wheeler, 2010). On hardware application, recent experiences in a school in Dumaguete (Philippines), now requires its second year high

school students to use an i-pad and is now extending its application to other levels, in order to improve the global competitiveness of their students (Cebu Daily News, March 31, 2012).

"The I-pad is no longer the tool of the future but of the present. If we don't jump into this, we will be left behind!" as said by the VP Dean Sinco (Cebu Daily News, 2012). The student use e-books in their i-pad and Wi-Fi is available all over the campus According to Pal, (2012) among the most interesting results from this research, reported the following observations that were noted also in a very rigorous study conducted in Oklahoma University (Hargis, 2011):

- Students improve their academic performance,
- sometimes, some students visit non -relevant web sites or play games
- i-pad use had both personal and professional benefits. Among the reported best practices in Oklahoma University was accessing social networks and integrating this into the personal and social lives of the students.

Although some schools are proud in saying that they succeeded in limiting the smartphone usage in school (Dubé, 2012) , we are at the beginning of a radical transformation of learning and one can expect mobile devices and the social media to act as disruptive technologies which will suddenly replace the old teaching methods like the typewriter which was replaced by the word processor, the analog camera by the digital camera and now all of these devices by the smartphone. The presence of smartphone will transform the traditional classroom as Coutinho (2012) stated: "Social web tools prioritize collaboration, participation, and reflection, as well as offer new opportunities for knowledge construction and sharing. But they also demand new pedagogical strategies and forms of assessment that are not consistent with standards that value what is taught instead of what is constructed, what is pre-established instead of what is agreed".

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Fig. 1 Learning as a disruptive technology, Byron's Babbles (2012)

The social media together with the smartphones and the i-pads may be the disruptive technology that will make obsolete the concrete and mortar schools to resulting to a decentralized, personalized, social and cross-sectional learning. In short, social media softwares and applications will create enhanced learning experiences (Wheeler, 2008).

On the other hand Kennedy (2009) remarked that “The effective use of these devices for communication and potential interaction rather than for merely low level recall or as a basic information medium, still requires a solution of the following issues of affordability, pedagogy, willingness (staff and students), available applications, support and most especially, learning designs.” Because if students will use social media on their smartphone and i-pad to post documents, manage course logistics & share information with their colleagues, then it will just be another distraction from their academic studies.

According to Carnwell (2000), one can expect the decrease in the value of the learning process by giving more importance to the social network and less to the teacher because the technical support mediates the information flow.

As stated by a strategic recruiting enterprise, “If 2011 was the year of social media, 2012 will be the year of the mobile platform” (Sullivan, 2012). Barkham & Moss (2012) made a remark about smartphone, as the “powerful computer in every pupils’ pocket” to access ICT. Some see it as a headache, others as a panacea, that they call BYOD (bring your own device). After introducing a policy for use of phones in class, only 1.4% of misuses were noticed, which contradicts many other studies, namely one done recently by Educational Institute of Scotland (year). They reported that student’s usage range from:

- recording homework tasks in the calendar
 - camera function to record things in order to bring them back to class
 - browsing internet for research
 - making their learning personal and not only cut-and-paste information
- CISCO (2012) surveyed 1800 college students and young IT professionals in 18 countries and found the following:
- Smartphones rival laptops as a preferred device by Generation Y.
 - 60% of Generation Y compulsively checks their smart phones for emails, texts or social media updates.
 - Over two out of five would feel “anxious, like part of me was missing” if they couldn’t check their smart phones constantly.
 - Facebook is the new global phone book
 - Generation Y workforce connect work and social concerns but disconnect with corporate information technology

But to be used, these new technologies need to be accepted. One of the paradigms of IT discipline is certainly based on social psychology as it relates to the theory of reasonable action, the theory of planned behavior and finally the

Technology acceptance model (TAM). These theories have been merged into the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatech (2003). This model states that technology acceptance (an attitude) leads to usage and is mainly dependent on perceived ease of use and perceived usefulness with the given system quality and perceived norms and other external characteristics. Recently, Mabed and Koeler (2012) used and adapted the TAM to study 112 students ‘acceptance of a LMS in a vocational education school. His study provided evidence that perceived ease of use was the main variable correlated to system usage and perceived usefulness.

According to Rogers (2003), the likelihood of adoption of a new technology would be correlated to the five following attributes, that Black et al (2007) used to explain the likelihood of LMS adoption and implementation by educators. Can this attributes be adapted to student’s adoption of Social Media?

- Compatibility with “the existing values, past experiences and needs of potential adoptors” (Rogers, 2003, p 15); is the student’s use of social media for pedagogic purpose consistent?
- relative advantage: refers to the advantage in terms of efficiency and effectiveness of the use of social media over traditional means of communication for pedagogic purposes
- trial ability: refers to the possibility for student to try this specific use of social media on a small scale before extending its use to all his school activities
- Simplicity or ease of use and implementation means likelihood of adoption; the social media use for pedagogical use is simply an extension of personal use
- and observability refers to the visibility (to others) of the success or failure of using social media to attain pedagogical goals.

According to this view of innovation, clearly the new students have already adopted social media mobile technologies and integrated it into their private lives. Mobile social media use is anticipated to have a great impact on teaching. But little is known about the use of these technologies by the students as a support for their academic life and their motives for the actual use of social media for academic purposes.

II. OBJECTIVES

This study aims at presenting an initial overview of the actual use of social media and mobile devices for learning, based from the student’s point of view, their main motives for their use and feedback about their effectiveness.

III. METHODOLOGY

A. The Instrument

In order to get insights on this concern, a questionnaire

was designed with the help of some students. To verify the impact of the cultural bias, the same questionnaire was also used in other countries. In order to deal with geographic location, time and money constraints, a web survey was employed. Among the many advantages of a web survey are: it allows researchers to collect data in a very short period of time, data is already validated and codified and the data can be transferred directly into SPSS. It is to be noted too that hand filled replies on questionnaires often produce many errors and have a lower rate of return.

1. The questionnaire was structured into four sections:
2. the mobile and social media’s choice and intensity of actual usage
3. academic tasks supported by these technologies
4. feedback about mobile and social media’s usage as pedagogical tools
5. socio-demographic characteristics of respondents

The questionnaire was pre-tested on three (3) students and revisions then were done subsequently. It was then sent to three university members of the One World Research group for revision and adaptation (Ecuador, Thailand and Vietnam). This paper with data gathered from the Philippines is being reported as a work in progress..

IV. DATA COLLECTION

For practical reasons, a web-survey approach for data collection was employed. The main objectives for the choice of this method are the following:

- resolves the issues behind the constraints of geographical location, time and money.
- Shorter time for data collection,
- Immediate and real-time validation and codification of data.
- Direct data transfer from web survey to SPSS.
- Easy adaptation to an international context.
- Reduced errors and higher rate of return as compared to hand filled replies on questionnaires.

TABLE I
SOCIAL MEDIA USAGE

Usage	Min	Max	Mean	St Deviation
How many people are you connected with for study purpose(s)?	5	200	37.6	51.0
How many times a day do you send or receive a message for school purposes?	0	20	3.20	3.50
What % of your total communication does it account for?	1	100	49.6	29.9
How many times a day do you use or visit your Social Media Account?	1	10	2.90	2.10

The frequency of messages exchanged is only 3.2 messages per day per person which is congruent with the other data in this table. During the day, the network is not available in

school and students have limited access to Wi-Fi. This explains the low frequency of messages reported.

As mentioned by Cisco (2012), students reported feeling

V.RESULTS

A. Respondents

Among the 30 students of System Plus College Foundation that volunteered to answer our questionnaire, we observed the following distribution:

- Females = 77% (n=23) and males= 23% (n=7). As this may constitute a serious bias, we submitted all the questions to a t-test and our results suggest that there is no statistically significant difference between genders.
- The mean age of respondents is 19.66 years
- 13.3% in level 1 ,46.7% are in level 2 ,33.3 % in level 3, and 6.7% in level4.

B. Preferred Social Media for Study

Undoubtedly, Facebook is the preferred social media with 93% of students reporting their preference for it. Questioned about the reasons why they use this preferred media, revealed the responses:

- Commonly used by most of my classmates = 60%
- Easy to use = 87%
- Personal means to communicate with others= 73%

Students affirmed to be often (33.3%) or very often (36.6%) online for academic purposes. Surprisingly ,26.7% say they are always online for this purpose (sic). The researchers have some reservations about these results.

The size of the student’s network dedicated to school use varies very much among our respondents since the mean of 37.6 social media friends/connections has a standard deviation of 51. A careful examination of data shows that more than one person chose 200 social media friends/connections as well as others who mention 50 and 100 so we cannot consider these values as outliers.

pressured in having accessibility to the social media site and inability to check and answer messages from classmates based

from students' feedback.

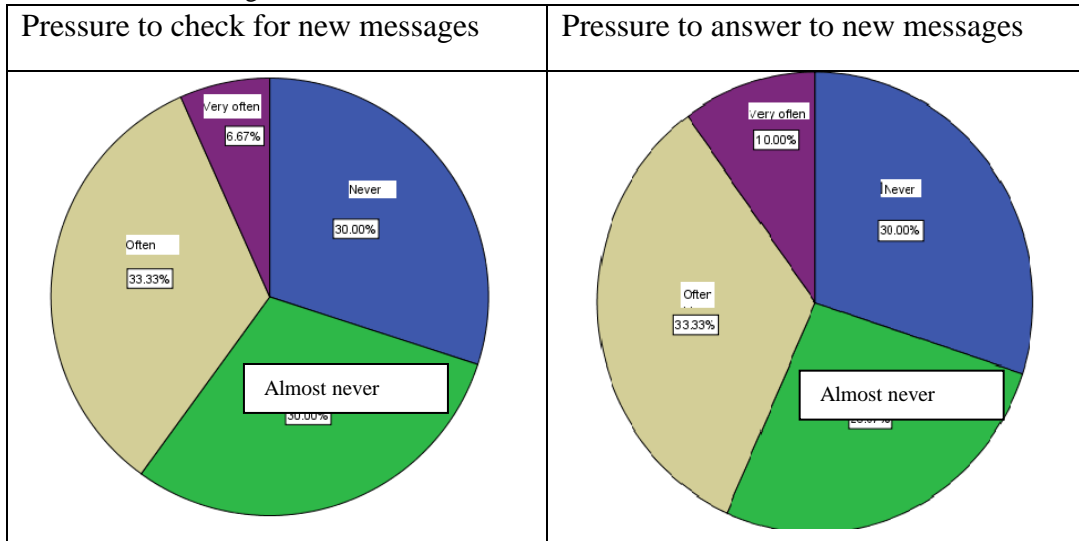


Fig. 2. Percentage of students who feel pressured in relation to checking and answering messages from classmates

As the reader can see, the logistics of the course is the main reason to communicate either to group or class members. Staying connected is important, while giving feedback to

teachers scored very low as well as sharing or doing collaborative work.

TABLE II
ACADEMIC TASKS (SOCIAL MEDIA OBJECTIVES)

motives	Min	Max	Mean	Std Dev
to read post announcements online from the teacher	2	7	6.00	1.41
to read post announcements online from other members of class	3	7	5.93	1.26
to stay connected with their classmates and share ideas	3	7	5.83	1.34
to read post announcements online from other members of team	3	7	5.77	1.28
to upload document to the group	2	7	5.60	1.35
to upload part of an assignment	1	7	5.37	1.52
to post announcements online from other personal of the school	1	7	5.28	1.60
to download lectures	1	7	5.23	1.65
to chat and exchange ideas to work on a common topic	2	7	5.23	1.45
to share links of the same interest	1	7	4.80	1.30
to meet groups to collaborate online	2	7	4.67	1.49
to give feedback to your teachers through Social Media	1	7	3.47	1.76

VI. OPINION ABOUT MOBILE DEVICES AND SOCIAL MEDIA USE AS PEDAGOGICAL TOOLS

When students were asked about their feedback on using social media as a support tool for studies, 50% sees it as necessary, 16.7% as very necessary though one third of respondents are neutral. No one judge it as distracting. More even 13.3% suggested using social media absolutely more while 50% asked for a greater use of social media to support

learning.

As in majority they judge it as necessary, students were asked to suggest how teacher could use social media as a learning support.

- 75% mentioned: to participate in group discussions
- 75% mentioned: to send documents
- A few ones mentioned to replace Moodle or raise queries

An unexpected question was presented to respondents about the availability of social media during classes and 67% refused

this open access but 80% requested more access in the school outside the classroom.

Finally one question was on the usefulness of the smartphone as a learning support. The respondents mentioned the following possible usage (4=mostly or 5=totally agree)

- Note taking (4=27%, 5=40%)
- accessing the web (4=37% 5=27%)
- scheduling a test or a due date for a homework (4=27% 5=40%).

VII. CONCLUSION

The highlights of the findings of this exploratory research can be summarized as follows:

- Mobile devices are not only present in personal life of students but also in their academic life
- They use them for many purposes related to their courses and assignments
- Social media are seen as necessary for their learning and their usage should be increased
- They don't exclude the professor from participating, especially for academic discussions
- They understand that mobile and social media should be restricted in class but not in school

This preliminary study, though useful, suffered from many limitations. Despite the fact that the questionnaire was judged easy to answer and relevant by students, only 30 students participated in the study as a convenient sample from a single college, thus limiting the capacity of providing generalized findings.

Clearly, further research is needed in order to increase the quality and rigor of the methodology, particularly the sampling procedure. Some adjustments must also be made to the instrument before collecting data from other countries.

Nevertheless, this initial overview of the situation suggested that social media and mobile devices will stay in the life of students, regardless of what teachers may believe.

It is important for practitioners and for university managers to note that social media is not a threat but is a useful tool to improve student satisfaction. Mobile technology supporting social media are important to improve learning, integrate school and personal life thus increasing student usage.

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