

The Impacts on Learning via Social Media: A Study on Post-secondary Students in Hong Kong

Jeff K.T. Tang^{1,2}(✉), Ho-Nam Yau², Shue-Fung Wong²,
and Sin-Ki Wong²

¹ School of Computing and Information Sciences, Caritas Institute
of Higher Education, 18 Chui Ling Road, Tseung Kwan O,
New Territories, Hong Kong
jtang@cihe.edu.hk

² Department of Mathematics and Information Technology,
The Hong Kong Institute of Education, 10 Lo Ping Road, Tai Po, Hong Kong
{s1106828, s1105017, s1106762}@s.i.ed.edu.hk

Abstract. Social media are the forms of electronic interaction or communication that enable people to create or share ideas in virtual communities or online networks. By using mobile devices and web-based technologies, people can easily get access to these highly interactive platforms. This paper explores the potential uses of social media for university teaching and learning activities. It also aims to find out how social media is applied at universities in Hong Kong, and their benefits or pitfalls when compared to other applications. Facebook and YouTube will be deeply discussed in this paper. A research was conducted with undergraduates from different universities in Hong Kong by using an online survey, in order to know how satisfactory of the undergraduates are feeling when applying social media for academic purposes. Results show that students might make uses of the sharing, discussing and searching functions from the social media. However, at the same time, students would be rather easily distracted by the entertaining and social functions from the social media. Further evaluation of our survey information will be included in detail, supported by findings and theories from different literatures.

Keywords: Social media · Teaching and learning · Human factor

1 Introduction

Nowadays many students like to use social media to share their everyday things and feelings. Students tended to use several applications of social media especially Facebook¹ and YouTube² [8]. Apart from sharing feelings themselves, students can also use social media to reach educational purpose that can be applied in learning and teaching. On Facebook, students can easily to be grouped in order to discuss any things

¹ <https://www.facebook.com/>.

² https://www.youtube.com.

about their academic works. It is because “Facebook group”, as Fig. 1, can be created by any member. There is also a conversation application in Facebook called “Messenger”, as Fig. 2.

Students can also share their documents, pictures, video and others file about their academic works to public or other classmates. YouTube provided a platform for member to upload or watch video so teacher can upload videos for education. On YouTube, students can get information to learn especially students in studying science. Some experiments cannot be demonstrated in the lesson because of the safety problem. According to an article - YouTube, critical pedagogy, and media activism [5], ‘learning requires dialogical communications between students and teachers’ and Comment is available to be left by members. Member can reply the previous comment too. Dialogical conversation can be allowed on YouTube.

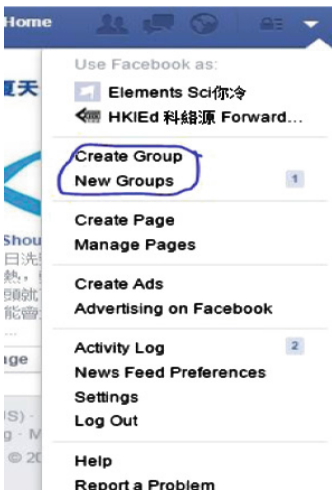


Fig. 1. The Facebook group.



Fig. 2. The instant messenger on Facebook.

2 Related Work

In the book of “Learning, Teaching, and Scholarship in a Digital Age-Web 2.0 and Classroom Research: What Path Should We Take Now?” the author commented on both pros and cons about applying social media in learning [2]. Author mentioned that technology is bridge between learning and teaching. It can provide a platform for students to interact such as sending invitation, sharing their stances by voting, and receiving feedbacks from peer or instructor immediately and also increasing their reading and writing skills so students were expected to making progress of academic result. Books or literatures are free to download in some social scholar which is similar to library. It is obviously helping students to get knowledge. Finding books in library is not easy because there are many books in library. In online scholar, key words or book name were typed in search engine then books can be founded. Learning is no longer focusing on in-class lesson but students enjoy above benefits in any mobile devices.

Despite the pros of applying social media in learning, the public or private information on social media may not be reliable. Author mentioned that data from social media is not promised to be hundred percent trustable by administrators of social media. Every member can post informative post on YouTube and Facebook without any permission. In fact, in the Digital Age-Web 2.0 learners can reach their academic score. Learners and teachers can use social media as the platform to learn and teach in everywhere. Especially, in the postsecondary level, students are mainly using computers to finish their assignments. The immediate interaction in the Internet is very important to exchange the academic information in the social media. Therefore, Facebook and YouTube are very useful tools for today's teaching and learning environment.

In the book of "Expanding the New Literacies Conversation", author thought that researchers were permitted to analysis literature on social media so it can provide richer understandings than school [6]. Author mentioned that several skills should be required when reading on the Internet. One of the skills is 'evaluate information critically'. It is really important to students because there are many magnanimity of information. Nowadays many people like to search information on Internet especially Wikipedia³ however information from Wikipedia can be edited by anyone as Fig. 3. Students have to critically identify information in order to get the most reliable information. Students can choose some authority materials and websites to get information for example academic papers, books and government report. Unlike school, teacher is not supposed to educate students directly with standard text book or materials. In order to combine information from social media with formal teaching, students can ask for a consultation of information which is founded on social media with teacher. In the social media like Facebook and YouTube, most of the information is about entertainment and personal information. Therefore, students should have the critical thinking for selecting the information in social media to complete their homework or assignments.

The screenshot shows the Wikipedia interface for the Google Scholar article. At the top left is the Wikipedia logo with the tagline "The Free Encyclopedia". Below it is a sidebar with navigation options: Main page, Featured content, Current events, Random article, Donate to Wikipedia, Wikipedia store, Interaction, Help, About Wikipedia, Community portal, Recent changes, Contact page, Tools, What links here, Related changes, Upload file, Special pages, Permanent link, Page information, and Wikidata item. The main content area has tabs for "Article" and "Talk", and a search bar. The title is "Google Scholar" with a sub-header "From Wikipedia, the free encyclopedia". The text describes Google Scholar as a freely accessible web search engine that indexes the full text or metadata of scholarly literature across an array of publishing formats and disciplines. It mentions that the Google Scholar Index includes most peer-reviewed online journals of Europe and America's largest scholarly publishers, plus scholarly books and other non-peer reviewed journals. It also notes that while Google does not publish the size of its database, third-party researchers estimated it to contain roughly 160 million documents as of May 2014, and an earlier statistical estimate published in PLOS ONE using a Mark and recapture method estimated approximately 80-90% coverage of all articles published in English. A small table titled "Contents [hide]" lists: 1 History, 2 Features and specifications, 3 Ranking algorithm, 4 Limitations and criticism, 5 See also, 6 References, and 7 External links. At the bottom left of the main content area is a "History" section with a "Fedit" link. On the right side, there is a "Google Scholar" logo and a table with the following information:

Web address	scholar.google.com/
Type of site	bibliographic database
Registration	Optional
Owner	Google
Current status	Active

Fig. 3. The interface of Wikipedia.

³ <https://en.wikipedia.org/>.

There is a journal written from Pierce [9] focusing on the teens commutation methods. The journal compared face-to-face communication versus technological communication among teens. The essay found out 280 high school students to fill in the questionnaire and the results discovered the situation of the usage of socially interactive technologies (SITs) in teenagers. There were a number of examples of SITs like online social sites, text messaging and instant messaging. About 35–40 % of students used online social sites like Facebook and Twitter, 1 to 4 h per day. The situation is more serious in females. The students general had the feature of social anxiety. For example, they were uncomfortable of taking with others face-to-face. The study also revealed that there was a positive relationship of the using hours of SITs and the social anxiety. The participants preferred using computers to make friend with other people but were afraid of making friend with others face-to-face. The females' participants spend more time to SITs to compare with males, therefore the girls felt more comfortable when they were using social media. Basic on this journal, the human relationship can be affected by the method of the communication. Even though people communicate with each other every day by the SITs, using Facebook to update others states and chatting with others in Skype, their social skills or the attitude towards reality communication may be decreased because the usage of social media.

This is about a special issue articles from Journal of Educational Technology and Society. This article pointed out mobile devices were being more useful and powerful in nowadays society [3]. The mobile devices played an important role in helping students to learn and teachers to teach. For example, they can read the safe copy version of their notes, edit the assignment and download the urgent document. The article claims that the mobile technology can assist the development of "situated classroom". Situated classroom means that learners can improve their knowledge in daily life. The development of mobile applications has the mobility, ubiquitous computing and portability. Learners can use their own devices to learn in everywhere in every time. In fact, the mobile applications include the social media application such as Facebook, Twitter and Google+. Students in the institute can use the mobile applications to improve their learning and teachers can create a situated classroom from the students to learn in formal or informal way.

It is no doubt that Facebook can be a potentially useful web technology for promoting effective academic practice. However, the prior application of Facebook is for social purposes more than for academic purposes. From the book "Facebook, social integration and informal learning at university: 'It is more for socialising and talking to friends about work than for actually doing work'", Madge, Mee, Wellens & Hooley [7] quoted a research that was conducted with first year undergraduates at a university in British by using an Internet survey for supporting the above idea. To start with, more than 73 % of the students agreed that Facebook had been very important in assisting them to form friendships at university. They would utilize this platform for searching and recognizing new friends by sending or accepting friend requests, keeping in touch with old friends by tagging or commenting, and planning social events by creating Facebook Group or Page, implying that Facebook literally provides a lot for social purposes. Indeed, by raising a statement of "Facebook is helpful to my academic life", more than half of the students chose "Disagree" or even "Strongly Disagree". Most of the students would only use its uploading and downloading function for learning

purposes. This may reflect the truth that students make use of Facebook way more frequently for social rather than academic purposes. More to add, 25 % of the students felt that their academic work would often or usually be affected by the amount of time they spent on Facebook. This proves that Facebook may not be a suitable platform for academic purposes, but conversely distracting students from their formal studies. Furthermore, 41 % of the students chose “Agree” or “Strongly Agree” that they would not prefer teachers to contact them through Facebook for formal teaching purposes. Though the other 59 % of students supported the theory of using Facebook for formal teaching purposes, some of them suspected its effectiveness in practice. This explains that Facebook may not be the most appropriate place for formal teaching purposes.

YouTube is classified as a socially interactive technology that can be applied in classrooms. It involves many potential uses in teaching and learning. However, it is important to opt for appropriate teaching materials for students to learn well, since YouTube consists of too many types of videos. By referring the book “YouTube: Educational Potentials and Pitfalls”, Jones and Cuthrell [4] analyzed and elaborated on the above idea. Firstly, YouTube videos can serve as guidelines for students to learn. The videos can be used for raising new concepts, visualizing abstract theories or highlighting crucial points. The video can be used as a model for classroom discussion or activities as well. These may facilitate interactions between teachers and students. Secondly, teachers can also search for creative lesson plans on YouTube. It includes video of model teachers presenting lectures which have been proven effective in classrooms. Even teachers can interact with the other teachers by sharing innovative ideas about teaching. Thirdly, students can share feedbacks to each other after viewing the videos, which peer reviews can be facilitated in the process. Nonetheless, the authors also stated that YouTube contains a vast number of junk videos that would not help students to learn. Teachers must ensure that the chosen videos have clear educational value, which are trustworthy, reasonable and accurate for students to refer and gain.

3 Proposed Method for Evaluating the Use of Social Media in Learning

The literature review showed there is a demand for evaluating the use of social media in learning of post-secondary students.

3.1 Our Findings

There are some pros and cons about learning and teaching through YouTube. YouTube is seen as a ‘learning and teaching tool’ beside in class learning. Firstly, members, no matter of teacher or student, are allowed to upload and watch video on YouTube. Some sessions cannot be demonstrated in class, for example video about dangerous experiment, so video should be used to replace experiment. Students did not miss any essential part of the topic and more practically to learn through YouTube. Live function is also a main function of YouTube because academic launch could be played instantly.

Some of teachers may use this function to provide their lesson so students can get information immediately. To compare with Jtv (Justin TV⁴) and Twitch⁵, YouTube live video can be saved as a regular video in member's channel. It can be saved as a record so that other students, who do not present at that time, can also watch that video. Chat room is providing an instant conversation between video uploader and watcher. Secondly, the function of comment provides a platform as 'dialogical communication' [5], students and teachers are allowed to start their conversation under a video. According to the above literature - "Learning, Teaching, and Scholarship in a Digital Age-Web 2.0 and Classroom Research: What Path Should We Take Now?", it is more effective for learning to receive feedbacks from teacher immediately. Students who have questions about the video should leave a comment so that video uploader can answer to solve their problems.

Although there are some pros about using YouTube for learning, cons and limitations are still existed. There is different information on YouTube but the realness of information cannot be ensured. Every member of YouTube can upload informative videos so audience may confuse about the realness of the video. Students must evaluate every video themselves critically which was suggested by the author of the book - "Expanding the New Literacies Conversation" to ensure the reliability of that informative video. Apart from asking teachers for the realness, so that it can be combined with the formal teaching, checking on the other reliable website or checking out more related videos to confirm it. Also there are many other videos on YouTube, that may not relevant to academic, but it may appear on the page of video. Students may be affected by that video especially some entertaining videos with attractive title. More to add, ethical issues such as copyright problems would happen when users re-quote videos without permission by owners. Besides, YouTube would collect Cookies from the user records. Personal privacy may be leaked to YouTube for business uses.

A number of pros and cons of using Facebook for academic purposes can be concluded from all the literature findings. When compared to the other non-social applications, Facebook provides spaces and functions for students to interact and communicate. Students can gather their classmates to share their views, voting for stances and upload their references on certain topics by creating Facebook Group or Page. Instant messages can be captured and sent in the Messenger box as well. Through giving and receiving feedbacks from each other, students can learn more from peer reviewing.

By comparing with Facebook and WordPress (other social media), both of them enable sharing of information. Yet, Facebook has more functions of facilitating social interaction and communication, while WordPress is more likely a publishing platform. Not only Facebook can raise our own ideas, but in additionally can explore and share contents created by other people. It can be said that WordPress emphasizes content creation, while Facebook focuses more on content curation, which students may gather, plan and discuss more on certain topics. As a result, student-student interaction can be eased and improved.

⁴ www.justin.tv/ (It is closed since 5th August, 2014).

⁵ www.twitch.tv/.

By comparing Facebook with Google drive (non-social media application), both of them can be used for sharing folders to the group-mates. Students can upload and download their needed documents as well. For functions such as message sending, immediate messages can be sent by utilizing Facebook Group, Page or Messenger box. Conversely, the communication of Google drive depends on email transferring. This means that users of Google drive cannot contact others in the same user interface (UI), which is less convenient than that of Facebook. However, the advantage of Google drive is that the file size of uploading and downloading has no limit. The maximum file size of Facebook is 25 MB (Fig. 4). Therefore, when students need to share bigger size files, Google Drive would be a better choice.



Fig. 4. The file size limitation of Facebook. (In English: the selected file is too big for upload. The upper limit is 25 MB.)

Moreover, Facebook can be browsed easily by using mobile devices. Documents stored in Facebook can be saved or downloaded in everywhere. Situated Classroom emphasizing gaining and improving knowledge in daily life can thus be fulfilled by its portability.

Every coin has two sides. Utilizing Facebook for academic purposes consists of some pitfalls as well. To begin with, Facebook consists of numerous functions for social and entertainment, which are the major selling points for attracting people to browse it. Though students can make use of Facebook for academic purposes, they would be more distracted by those interesting functions. Besides, Facebook may not be a suitable platform for formal teaching purposes. Not only teachers would find it difficult to interact with students but would in additionally feel hard to involve formal assessments for them. Furthermore, information spread in Facebook may not be completely trustworthy, as every member can share their own ideal answers easily in Facebook. Students have to be very cautious and critical when evaluating the information. More to add, since there is positive relationship of the using hours of SITs and the social anxiety, students who rely too much on Facebook for communication may feel anxious when having face-to-face interaction with the others in real life. Their social skills would be conversely worsened if they have been obsessed with Facebook.

3.2 The Experiment Design

In order to know more about the habits of using social media, especially Facebook and YouTube, for nowadays post-secondary school students, survey and a set of questionnaire is created. The target respondents are from Hong Kong post-secondary level institutions. Aims are going to be discussed by question. Question 1, 2 and 3 are going

to know whether social media is famous for students to learn or get knowledge and also which media is the most famous media. Question 4 is aimed to know the level of reliability on such social media. Question 5 is set to count which function is the most useful and see they were concentrating on their works. About the purposes of question number 6–8, our group would like to understand whether social media negatively affect the learning process or not and the main content of the irrelevant information in social media. Question number 10 would like to determine the future development of learning and teaching is on mobile device.

4 Experiment and Results

In our survey about the usage of social media in The Hong Kong post-secondary level students in teaching and learning especially Facebook and YouTube, a questionnaire survey was created by our group. Using Google Forms to create the questionnaire and invited the related students through sending emails. The sample sizes of the questionnaire were 23 people from different institutions. There are ten questions about the usage of social media for learning and teaching. The sample of the questionnaire will be attached in the annex.

According in to the results of questionnaire in question one, hundred percent of the respondents claimed that they had used social media before (Fig. 5). Therefore, the usage of social media is very common in Hong Kong.

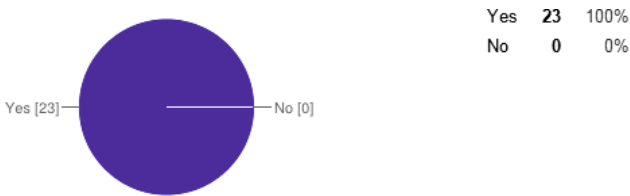


Fig. 5. The result of question 1.

In the second question, the results showed us that most of the people using Facebook that were about 95.7 % of students in the survey and 52.2 % of students have browsed on YouTube (Fig. 6). So that Facebook and YouTube are two of the famous social media for post-secondary students in Hong Kong.

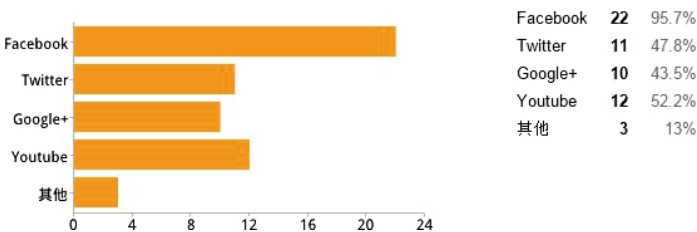


Fig. 6. The result of question 2.

The question number three is about does the social media help learning and teaching for the students. There are 95.7 % students agree that the social media helping their academic needs (Fig. 7). To complex question number 2 and 3, most of the students used Facebook and YouTube as their social media and the social media can help learning and teaching. Therefore, most of the students think that Facebook and YouTube can help the learning and teaching in the scholar area.

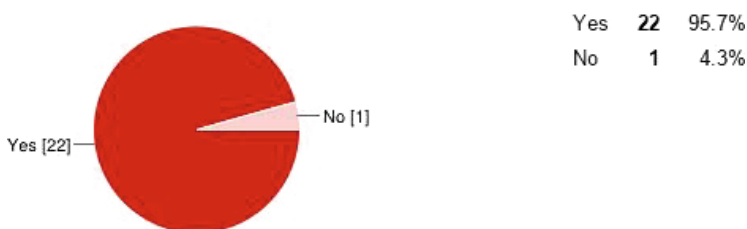


Fig. 7. The result of question 3.

About the habit of the usage of the social media, the major number of students (77.3 %) claimed that they use social media every day (Fig. 8). It can reflect that the social media applications are very poplar for Hong Kong post-secondary level students. They can use social media to update their friends’ state, chat with their friends and also share information with other people. Thus, most of the respondents spend times in Facebook and YouTube every day.

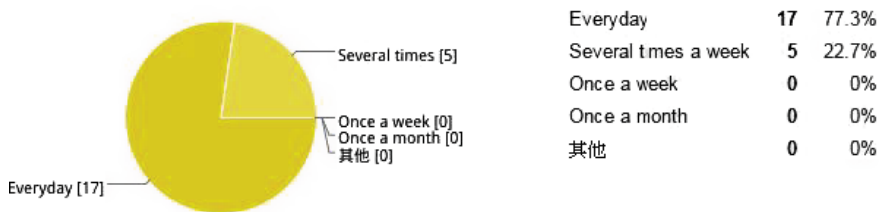


Fig. 8. The result of question 4.

About the functions of social media for learning and teaching in the post-secondary level studies, there are 90.9 % of students tried the sharing folders function. Also, there are 50 % of students used the function of communication with group mates and 31.8 % of the respondents used social media to Searching information about the assignments (Fig. 9). One more thing need to look out is that there are serval number of students used social media to share photos and video to finish their assignments. This means that

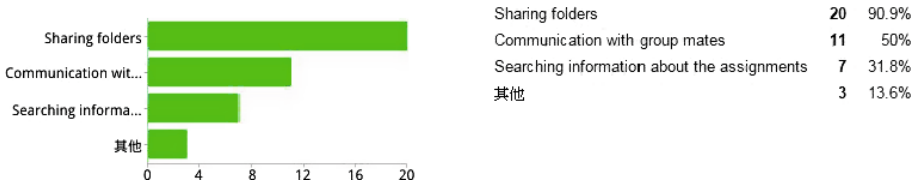


Fig. 9. The result of question 5.

the social media is very useful of the learning and teaching process in the post-secondary level. In other word, the teaching and learning is relied on the social media in Hong Kong.

It is no doubt that the social media can improve the teaching and learning for Hong Kong students. However, about the disturbing of social media when students doing homework, 100 % of students claimed that there are irrelevant information when they using social media for learning (Fig. 10). For the extent of the disturbing of social media, the major number of students claimed that they spend 25 % to 50 % of working hours on the irrelevant information of social media (Fig. 11). The irrelevant information is mainly about entertainment like jokes or video, such as YouTube video (Fig. 12). It may reflect that the social media contain a lot of irrelevant information for teaching and learning, teachers and students need to critical and careful to analyze the information from social media. On the other hand, learners need to hide the lure form the social media. In addition, when we focus on the specific case of the questionnaire, we discover that if the student uses more kinds of social media like using Facebook, YouTube, Twitter, Google+ and Instagram, the time of spending in the irrelevant information will be increase.

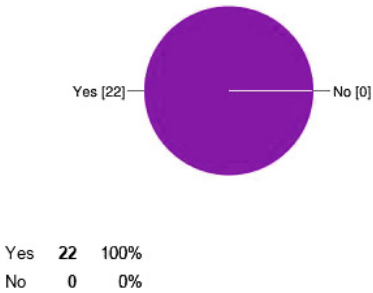


Fig. 10. The result of question 6.

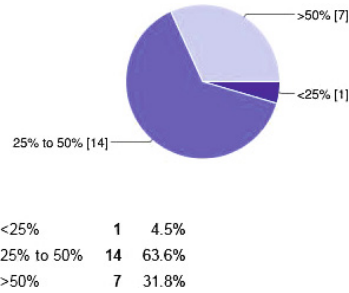


Fig. 11. The result of question 7.

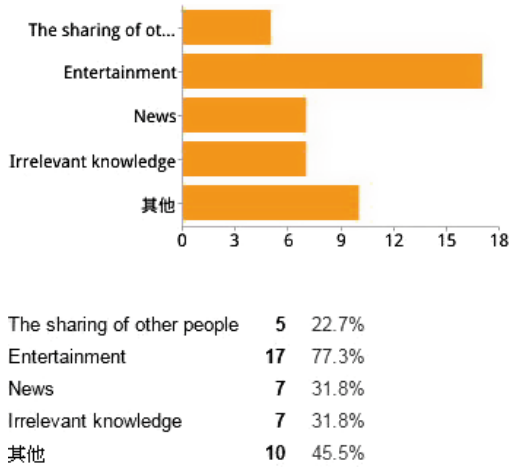


Fig. 12. The result of question 8.

There are major number of respondents agree that the social media is the tools to improve their teaching and learning (Fig. 13). The results show that the Hong Kong post-secondary level students satisfy the functions of social media for learning and teaching and Facebook and YouTube are the tools for learning. On the other hand, 100 % of students used social media for teaching and learning in their mobile devices like smart phone and tablet no matter which OS like android, IOS or windows (Fig. 14). In fact, the mobile devices contain a lot of social media application like Facebook and YouTube. These applications are very popular. For example, the

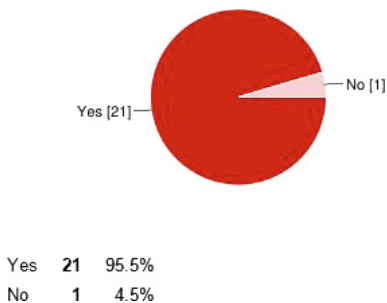


Fig. 13. The result of question 9.

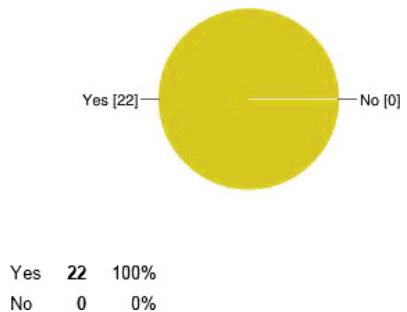


Fig. 14. The result of question 10.

installation rate of Facebook app in “Google play” is about 27,964,372 times [1]. In the results of these questions, the development of the social media is trended to mobile. Therefore, the learning and teaching process will become more convenience and portable in the foreseeable future. Students can learn in anywhere at any time.

5 Conclusion

In this paper, we focused are on the usage of social media for learning in Hong Kong. Facebook and YouTube are two of the famous social media for Hong Kong students studying in post-secondary level institution. The function of Facebook like sending message, sharing folders, collecting information and setting some election can be applied in the learning process. About the functions of YouTube, the major function is sharing video on the Internet. In the post-secondary learning, there are some assignments to require students creating video, especially for the communication major students. YouTube can provide a platform for students sharing video and also their minds and ideas to all around the world. Also, the previous part pointed out the comparison of the social media. Facebook compared with Wiki and YouTube compared with Justin TV and Twitch. The comparison of the social media with other application can make a wider view for the usage of social media of students.

The survey done by our group through Google Forms questionnaire. The results can show that the habit of the usage of social media for the post-secondary level students in Hong Kong. Social media like Facebook and YouTube are very famous for them and they think that social media can improve their learning and teaching. However, social media like Facebook contain a lot of entertainment elements so that the focus of students may shift. Moreover, using mobile devices to browse the social media like Facebook and YouTube are the trend for learning in the future.

As future work, we will enhance e-learning platforms (such as MOOC that has high dropout rate) in order to attract students to continue learning, for example, incorporate with social media capabilities and entertainment elements. Also, the ethical impact of using social media will be studied in depth, in order to identify more potential harms the student may get during their learning on social network platforms.

Annex I. Questionnaire

Are social media improving learning or teaching?

1. Did you use any social media?
Yes No

2. Which social media did you browse? (Can choose more than one option)
Facebook TwitterGoogle+ Youtube Other: _____

3. Did you use that social media to learn or teach?
Yes No

4. How often do you use those social media?
Everyday Several times a week Once a week
Once a month Other: _____

5. Which functions do you always use for helping you learning? (Can choose more than one option)
Sharing folders Communication with group mates
Searching information about the assignments Other: _____

6. Did you read/watch irrelevant information when you were using social media for learning?
Yes No

7. If Yes, how many percentage of time did you spend in the irrelevant information when you were using social media for learning or teaching?
<25% 25% to 50% >50%

8. The irrelevant information is about: (Can choose more than one option)
The sharing of other people Entertainment News
Irrelevant knowledge Other: _____

9. Did you think social media is the tool to help you in improving your learning or teaching?
Yes No

10. Did you use social media for learning or teaching in your own mobile device?
Yes No

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