

## Using Facebook and Google Docs for Teaching and Sharing Information

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**Abstract**

In the 21st century, teachers need to realize that they are educating the net generation who are always online and connected with others via social network. These students do not primarily learn by reading or listening but rather they learn by doing and exploring. This paper presents the approach and the experience in using Facebook and Google Docs. We have evaluated and analyzed the result of the survey that asked users about the advantages and disadvantages of using Facebook and Google Docs. Most users agree that the advantages of Facebook are 1) reducing communication cost, 2) increasing participation, 3) providing convenience and ease of use, and 4) increasing collaboration. Most users view the main disadvantage as getting distracted easily while using Facebook. Moreover, Facebook still lacks features such as file submission and file sharing to support the complete learning process. Thus, in this paper, we also propose how to use Google Docs to allow participants to view and update information with each other more efficiently than to simply use Facebook documents. Most users agree that Google Docs has advantages in terms of document collaboration, quick access, easy sharing, and convenient and easy usage. However, Google Docs has disadvantages in terms of requiring users to connect to the Internet and having limited features compared to Microsoft Word and Excel.

**Keywords:** Facebook, Google Docs, e-learning, innovative teaching, social media, learning tool

**1. Introduction**

In the 21st century, teachers need to realize that they are educating the net generation who are always online and connected with others via social network (Oblinger, 2009). These students do not mainly learn by reading or listening but rather they learn by doing and exploring (Oblinger, 2009). Students are usually on Facebook which now has more than 800 million users worldwide (Facebook, 2011). In Thailand, the total number of Facebook users is reaching 12,881,800 and has grown by more than 3,754,860 users in the last 6 months. As of October 29, 2011, Facebook penetration in Thailand is 19.40% of the country's population and 73.67% of the country's Internet users.



Figure 1: Thailand Facebook Usage Statistics (Socialbakers.com, 2011a)

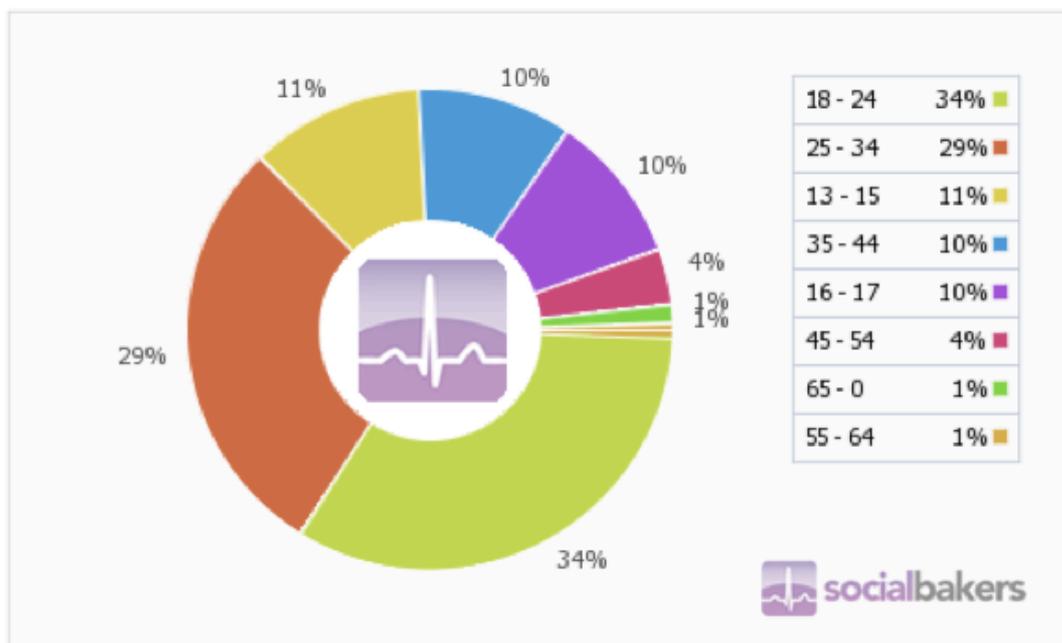


Figure 2: User Age Distribution on Facebook in Thailand (Socialbakers.com, 2011b)

As a result, Facebook can be a potential tool for learning and teaching aiming to reach this group of young people, many of which are in Thai colleges and universities. It is also essential to understand the advantages and disadvantages as well as how to appropriately use Facebook for learning and teaching. Nonetheless, teachers cannot use only Facebook as a teaching and learning tool. Facebook still lacks features such as file submission and file sharing to support the complete learning process. Therefore, in this paper, to embrace the social media technology into classroom, we also propose how to use Google Docs to allow participants to view and update information with others more efficiently than just simply using Facebook documents which does not support simultaneous editing by multiple users.

In the remaining of the paper, we organize the paper as follows. Section 2 presents the usage of Facebook and Google Docs in classroom. Then, in Section 3, we present the survey result including both advantages and disadvantages of using Facebook and Google Docs for teaching and sharing information. Finally, we conclude this paper in Section 4.

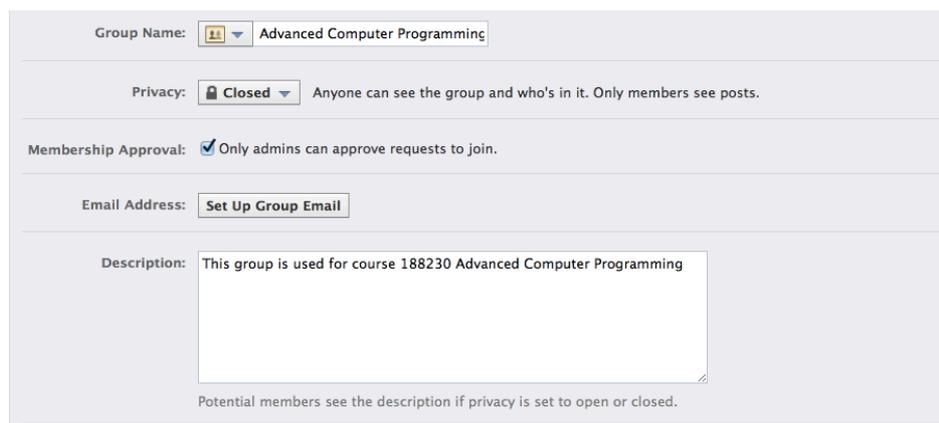
## 2. Facebook and Google Docs Usage in Formal and Informal Education

In this section, we describe how we use Facebook and Google Docs in courses at Khon Kaen University, Thailand.

### 2.1 Facebook Usage for Sharing Information and Teaching

In this section, we describe how we use Facebook as a supplementary tool for sharing and teaching in classroom. Facebook allows us to create group that we can set as a closed group or a secret group. A closed group allows anyone to see the group and but only group members can see posts in the group. A secret group allows only members to see the group, group members, and posts by members. In our classroom, we decided to use a closed group, as shown in Figure 3, because we want the group to be seen by students so that they can ask to join the group.

There are several activities that group members can perform to share information and learn together in Facebook group. Figure 4 shows that a member can write a post, which is suitable for real time information but unsuitable for information to be kept and referenced. A group member can also upload images to share visual information as shown in Figure 5. In the case that group members want to obtain opinions from or to ask questions in choices to other group members, they can use the poll feature to do so. Figure 6 shows the poll that asks the date and time that group members prefer to take a quiz. If group members want to share information that should be kept and referenced later, they should use Facebook Docs which is suitable for a document with a single editor but unsuitable for a document with multiple editors.



The image shows the Facebook group creation settings for a group named "Advanced Computer Programming". The privacy is set to "Closed", meaning anyone can see the group and who's in it, but only members see posts. The membership approval is set to "Only admins can approve requests to join". There is a button to "Set Up Group Email". The description is "This group is used for course 188230 Advanced Computer Programming". A note at the bottom states "Potential members see the description if privacy is set to open or closed."

Figure 3: Creating a Closed Group



**Kanda Runapongsa Saikaew**

Now I have finished grading project scores which you can check at [https://docs.google.com/spreadsheets/ccc?key=0AgG8IisfMPjedHd sNVU1R1N1b2pqSEfIXy1mW1N1aIE&hl=en\\_US](https://docs.google.com/spreadsheets/ccc?key=0AgG8IisfMPjedHd sNVU1R1N1b2pqSEfIXy1mW1N1aIE&hl=en_US) If you have any question, please ask me by Monday Oct 10, 2011



Google  
www.google.com

Search the world's information, including webpages, images, videos and more. Google has many special features to help you find exactly what you're looking for.

Like · Comment · Unfollow Post · Share · October 8 at 12:46pm

Qmlh Siripanporchana, Natthawut Prawarn, Patinya Taarak and 8 others like this.

View all 10 comments

**Panuwit** อาจารย์ครับ คือว่าของผม อาจารย์คอมเม้นว่า The first program is not compiled ครับ คือเป็นความคิดพลาดที่ผมส่งไปตั้งแต่ไฟล์เตอร์ src ี่เปล่าครับ  
October 10 at 10:44pm · Like

**Kanda Runapongsa Saikaew** Panuwit ขั้คะ แต่ถึงแม้ จะสร้าง package ทีเดียว โปรแกรมก็ยังไม่คอม เพลอปุ้ดคะ  
October 12 at 9:14pm · Like

Write a comment...

Figure 4: Sample Group Post

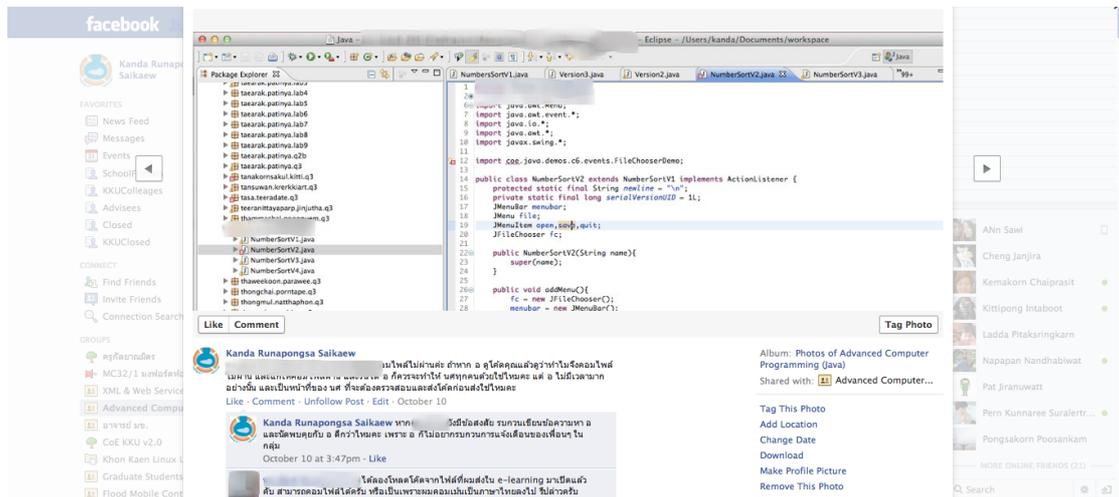


Figure 5: Sample Group Uploaded Photo



**Kanda Runapongsa Saikaew**

Date and time for Quiz 3

- Friday Sep 23 13:00-16:00
- Tuesday Sep 20 13:00-16:00
- Wednesday Sep 21 13:00-16:00
- 

Like · Comment · Unfollow Post · September 11 at 6:05am

Annie Kotsuwun likes this.

**Kanda Runapongsa Saikaew** Feel free to add date and time that is still available from my calendar at <http://gear.kku.ac.th/~krunapon/calendar.html>

**Kanda Runapongsa Saikaew's Calendar**  
gear.kku.ac.th

September 11 at 6:06am · Like · Remove Preview

**Kanda Runapongsa Saikaew** Quiz 3 will be set to Friday Sep 23 13:00-16:00 on ka. It covers everything that has been taught

September 14 at 7:17am · Like · 1 person

Figure 6: Sample Group Poll



Kanda Runapongsa Saikaew edited a doc.

### ACP Projects 2011 Presentation in English

I would like to praise and applause for the groups that try to present using English. These groups are  
ACP2011-1 ภาคิน เสฎฐวุฒิ อัครเดช ACP2011-3 กานต์ นภัส ปิยะ ACP2011-4  
ปรีดานุช นวพร ปรียากกร ACP2011-5 ณัฐวุฒิ นพสมพงษ์ ปฏิญญา ACP2011-9  
ชัยภูมิ ณัฐพล ธนวัฒน์ ACP2011-10 พนิดา กัทธา อารีดา ACP2011-14 ริชดา ศศิ  
ริมล ACP2011-19 เญจพล ปณิธาน ประดิพัทธ์ ACP2011-22 จินดนา เขาวณัฐ  
อิทธิพล ACP2011-24 ธรณิศ ชีรเดช พุฒิพงษ์ ACP2011-27 จิราญ แควทริยา ภักวีจณ์  
ACP2011-28 เกริกเกียรติ ประสาน ACP2011-29 จดพล จักรพันธ์ เอกรัฐ ACP2011-  
30 ชญานนท์ ชนมชนม์ สิริภาพ

Like · Comment · Unfollow Post · October 6 at 2:51pm

Aiwzz Ac, จิราญ แสงวรรณกุล, Un Bravewings and 7 others like this.

Figure 7: Sample Facebook Doc

## 2.2 Google Docs Usage for Sharing Information and Teaching

In this section, we describe how we use Google Docs to allow participants to view and update information with others more efficiently than just simply using Facebook documents. Google Docs allows users to create and share documents, presentations, spreadsheets, forms, drawings, tables and collections. Google Docs supports real time collaboration. Thus it is appropriate for promoting collaborative activities in a learning process. Figure 8 shows the list of documents shared by a teacher of one course. Figure 9 depicts the real time sharing document. If multiple users are editing or viewing a document at the same time, we will see their names listed at the top of the document frame. An example of using a Google Form to gather necessary information from students is shown in Figure 10.

### Features of Google Docs in Sharing Documents with Others

- 1) Documents: 50 users can edit the same document at the same time. We can share a document with up to 200 users.
- 2) Spreadsheets: A total of 50 users can edit the same spreadsheet simultaneously. We can share a spreadsheet with 200 collaborators and/or viewers.
- 3) Presentations: 10 users can edit the same presentation at the same time. However, we can share a presentation with up to 200 users (the total of collaborators and viewers combined cannot exceed 200)
- 4) Drawing: Up to 50 users can edit and view the same drawing at the same time.

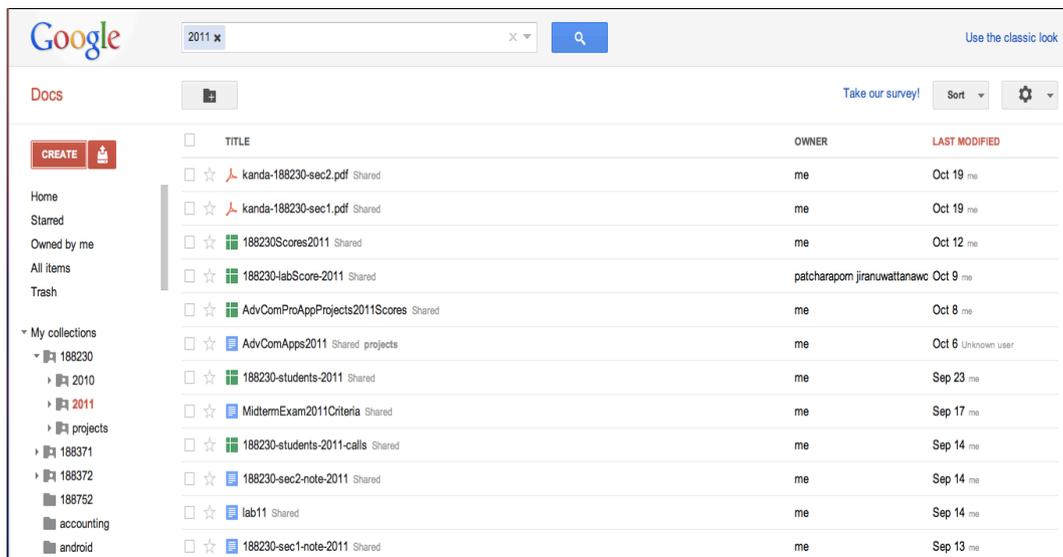


Figure 8: Sample Usage of Google Docs in One Course

Please Fill Your Information for 188371-2011 ☆

File Edit View Insert Format Data Tools Form (42) Help Last edit was 16 hours ago by kanda.runapongsa

1 other viewer

kanda.runapongsa

kanda.runapongsa has opened the document.

Timestamp	A	B	C	D	E	F	G
Timestamp	What is your name?	What is your email address?	What is your twitter/facebook/google+ username?	What is your Web page or blog?	What do you expect from taking XML and Web Services lecture and lab?	What do you hope to achieve after you graduate from the department of Computer Engineering?	What do you expect from taking XML and Web Services lecture and lab?
10/26/2011 21:57:50					To improve the experience for create and develop web by use xml and web service.	To create the great software project, but I'm uncertain that what to do.	To improve the experience for create and develop web by use xml and web service.
10/26/2011 22:31:40					I think that this subject will give me a lot of knowledge about XML language and web services, so this is very useful for me to bring them for work in my job.	I hope that I'll get some job and then do it with my best.	I hope that I'll get some job and then do it with my best.
10/26/2011 22:32:50					I am expect to improve my programming skill and also improve my responsibility as well.	I hope that I could be able to work in good company and be able to do my work well.	I want person take care of my work well.

Figure 9: Sample Real Time Collaboration with Other Users

https://docs.google.com/spreadsheet/viewform?hl=en\_US&formkey=dGdoVE5JWHpaanp3dm5yMfdOeW9JZnc6MA#gid=0

Docs YouTube Dropbox

**Please Fill Your Information for 188371-2011**

Please fill this form to fill your information so that I know more about you because I believe that a teacher can teacher better if he/she knows more about his/her students.  
\* Required

What is your name? \*

What is your email address? \*

What is your twitter/facebook/google+ username? \*

What is your Web page or blog?

What do you expect from taking XML and Web Services lecture and lab? \*

Figure 10: Sample Google Form

### 3. Survey Results

In order to survey users' opinions and to receive interesting comments, we have created an online survey page which is available at [https://docs.google.com/spreadsheet/viewform?hl=en\\_US&formkey=dGVHanBFQmZCdnlfQUVqcXdQOVQyeXc6MQ#gid=0](https://docs.google.com/spreadsheet/viewform?hl=en_US&formkey=dGVHanBFQmZCdnlfQUVqcXdQOVQyeXc6MQ#gid=0). The targets of this survey are teachers and learners who have some experiences in using Facebook and Google Docs as supplementary tools for teaching and sharing information. We separated the questionnaire into 2 sections. The first section collects information about advantages and disadvantages of using Facebook for teaching and sharing information, while the other section assesses the advantages and disadvantages of using Google Docs for teaching and sharing information. There were 69 respondents who replied to this survey.

### 3.1 The General usage of Facebook and Google for Teaching and Sharing information

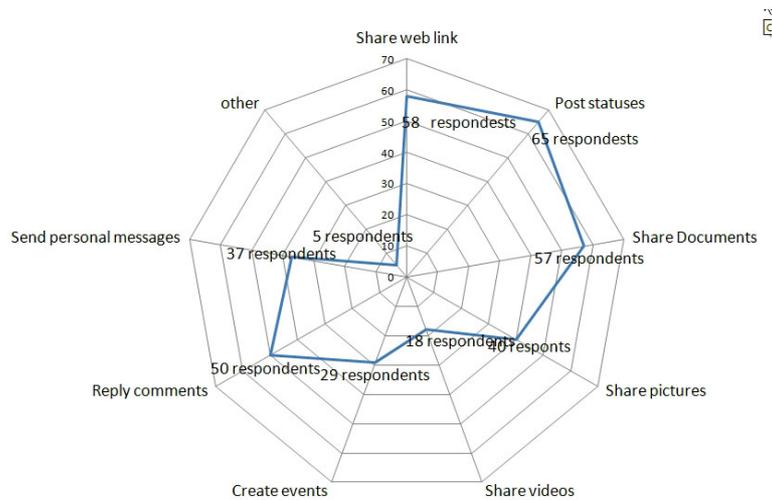


Figure 11: How Respondents Use Facebook in Teaching and Sharing information

Figure 11 shows that 94% of respondents have used Facebook for posting status updates, 84% have used Facebook for sharing web links, 83% have used Facebook for sharing documents, 72% have used Facebook for replying to comments, 58% have used Facebook for sharing pictures, 49% have used Facebook for sending personal messages, 42% have used Facebook for creating events, 28% have used Facebook for sharing videos, and 7% have used Facebook for other purposes. This indicates that most of respondents have used Facebook for sharing resources that include status updates, documents, and pictures.

### 3.2 The Opinions of Advantages and Disadvantages of Using Facebook for Teaching and Sharing Information

In this section we investigate the advantages and disadvantages of using Facebook for teaching and sharing information. The first set of questions assesses the degree of different advantages of using Facebook for teaching and sharing information including 1) instant interaction, 2) convenience and easiness, 3) courage to share, 4) communication cost reduction, 5) more participation, 6) increasing collaboration, and 7) brainstorm. We divide the degree of agreement to each advantage into 5 levels: strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1).

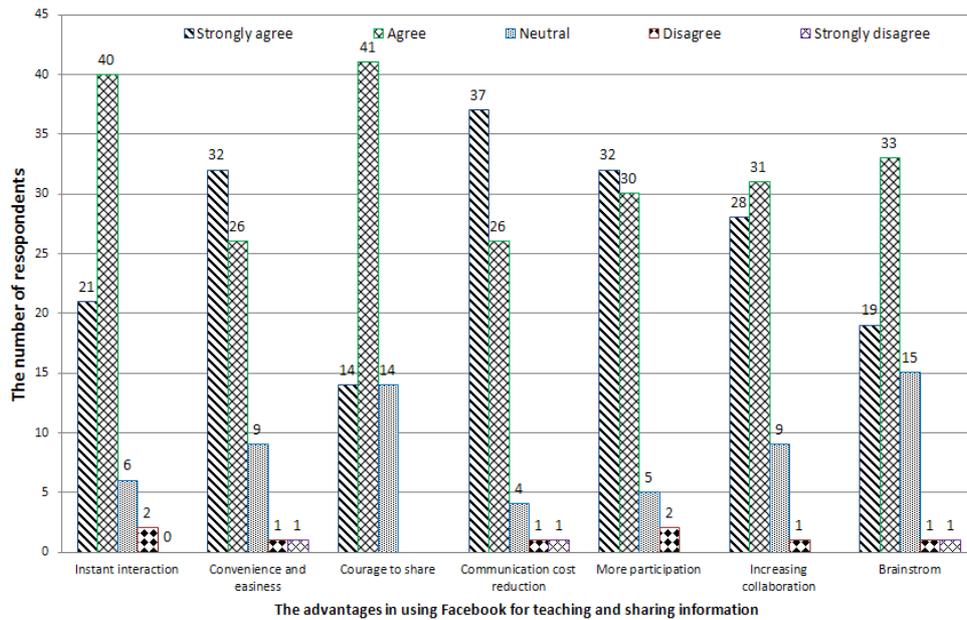


Figure 12: Advantages of Using Facebook for Teaching and Sharing Information

Table 1: Descriptive Statistics about Advantages of Using Facebook for Teaching and Sharing Information

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Instant interaction	69	2.00	5.00	4.1594	.69923
Convenience and easiness	69	1.00	5.00	4.2609	.85151
Courage to share	69	3.00	5.00	4.0000	.64169
Communication cost reduction	69	1.00	5.00	4.4058	.79185
More participation	69	2.00	5.00	4.3333	.74096
Increasing collaboration	69	2.00	5.00	4.2464	.73576
Brainstorm	69	1.00	5.00	3.9855	.83124
Valid N (listwise)	69				

From Table 1, we can rank the advantages of using Facebook for teaching and Sharing information from the most agreeable advantage to the least agreeable advantage as 1) communication cost reduction, 2) more participation, 3) convenience and easiness, 4) increasing collaboration, 5) instant interaction, 6) courage to share, and 7) brainstorm.

The second set of questions assesses the degree of different disadvantages of using Facebook for teaching and sharing information which include 1) time consuming, 2) difficult to find resources, 3) difficult to keep resources, 4) too open to public, 5) disturbing personal space, and 6) getting distracted easily. As before, we divide the degree of agreement to each advantage into 5 levels: strongly agree (5), agree (4), neutral (3), disagree (2), and strongly disagree (1).

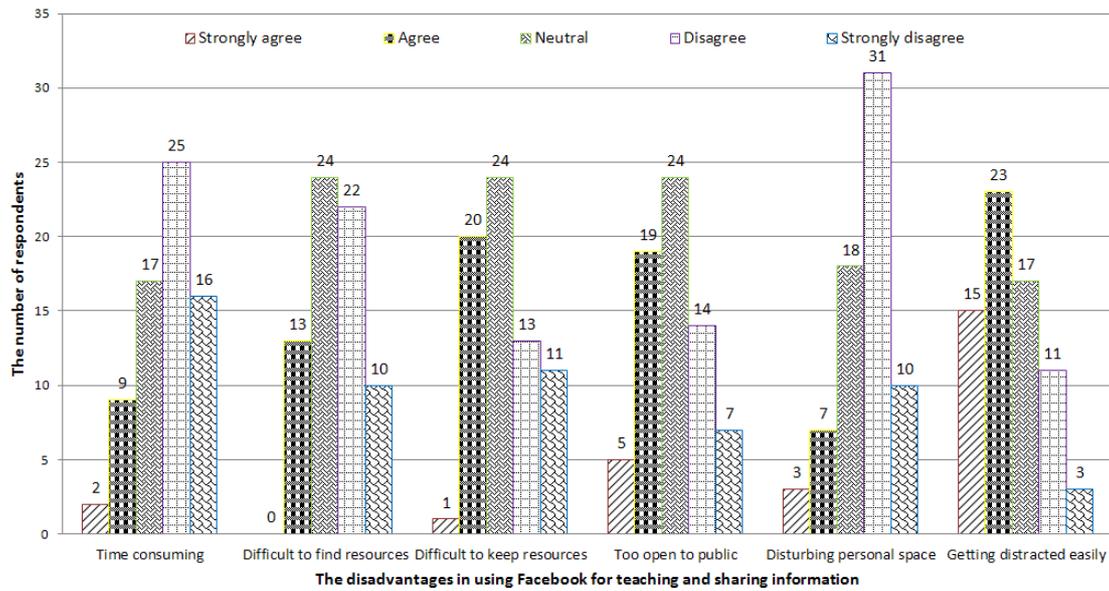


Figure 13: Opinions about the Cons in using Facebook for teaching and sharing information

Table 2: Descriptive Statistics about Disadvantages of Using Facebook for Teaching and Sharing Information

	N	Minimum	Maximum	Mean	Std. Deviation
Time Consuming	69	1	5	2.36	1.071
Difficult to find resources	69	1	4	2.58	.961
Difficult to keep resources	69	1	5	2.81	1.075
Too open to public	69	1	5	3.01	1.091
Disturbing personal space	69	1	5	2.45	1.008
Getting distracted easily	69	1	5	3.52	1.133
Valid N (listwise)	69				

From Table 2, we can conclude that many users agree that the most agreeable disadvantage of using Facebook for teaching and learning is that they get distracted easily. This disadvantage gets the mean agreement score of 3.52.

### 3.3 The Opinions of Advantages and Disadvantages of Using Google Docs for Teaching and Sharing information

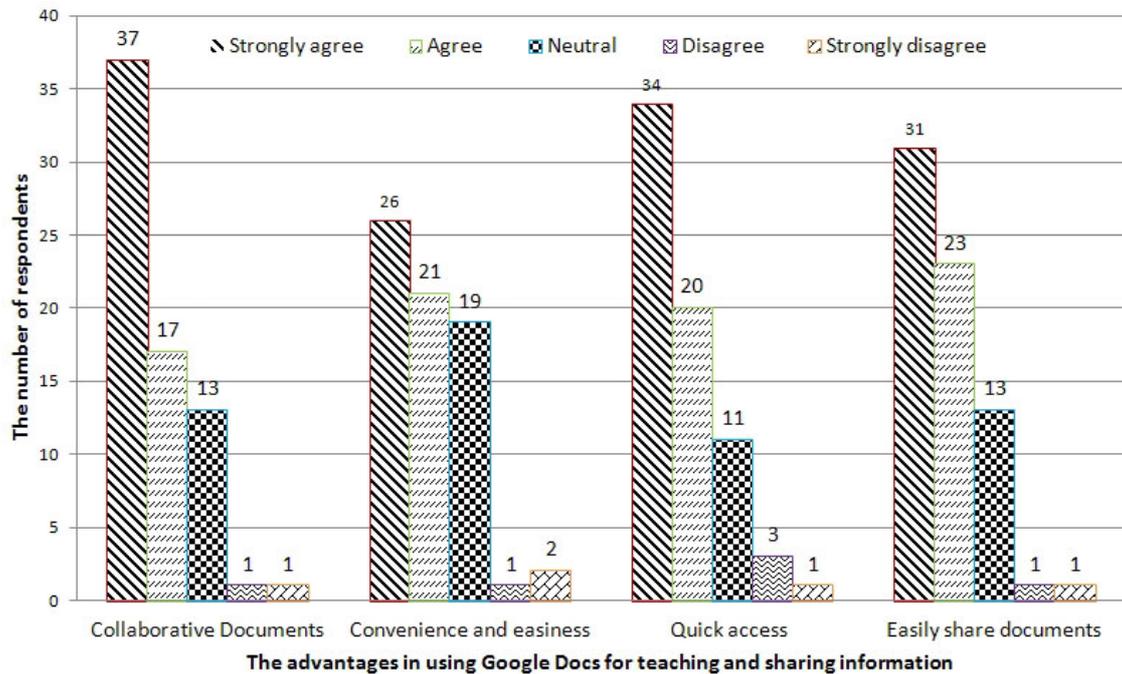


Figure 14 The advantages in using Google Docs for Teaching and Sharing Information

Table 3 Descriptive Statistics about Advantages of Using Google Docs for Teaching and Sharing Information

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Collaborative documents	69	1.00	5.00	4.2754	.92170
Convenience and easiness	69	1.00	5.00	3.9855	.99251
Quick access	69	1.00	5.00	4.2029	.96375
Easily share documents	69	1.00	5.00	4.1884	.89567
Valid N (listwise)	69				

From Table 3, we can rank the advantages of using Google Docs for teaching and Sharing information from the most agreeable advantage to the least agreeable advantage as 1) collaborative documents, 2) quick access through the Internet, 3) easy to share, and 4) convenient and easy to use.

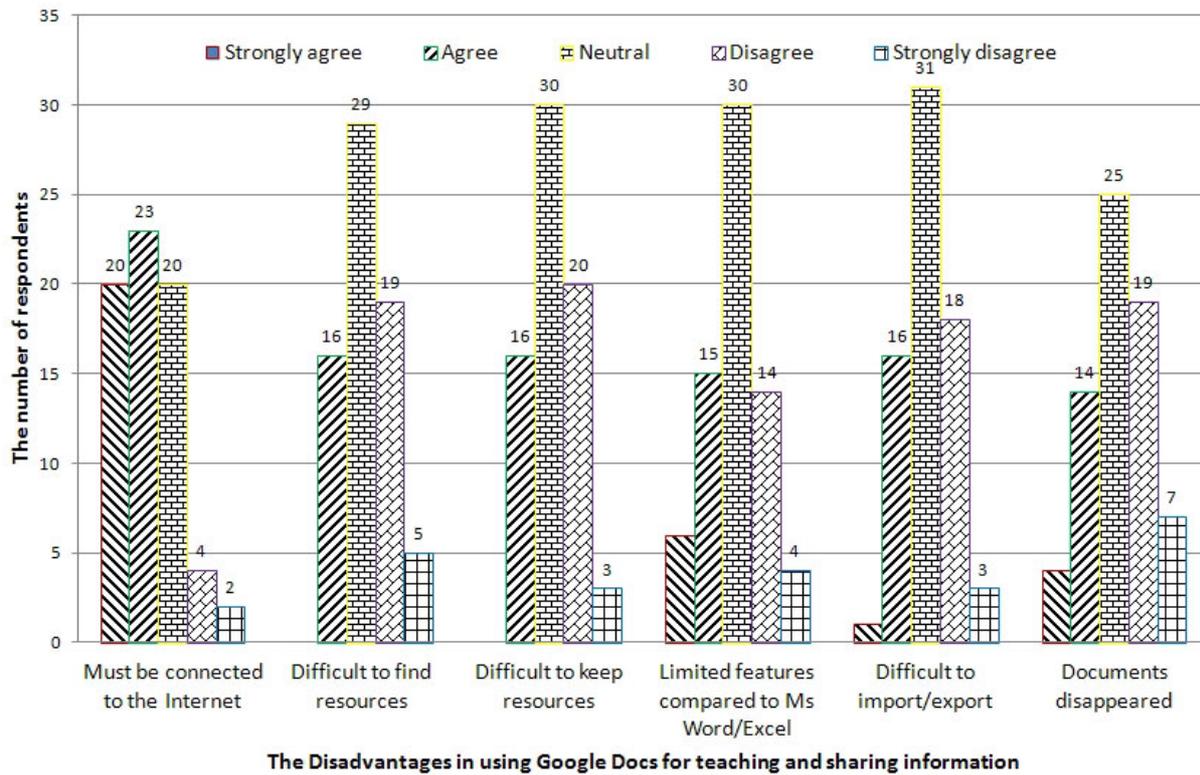


Figure 15 Disadvantages in Using Google Docs for Teaching and Sharing Information

Table 4 Descriptive Statistics about Disadvantages of Using Google Docs for Teaching and Sharing Information

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Must be connected to the Internet	69	1.00	5.00	3.7971	1.02297
Difficult to find resources	69	1.00	4.00	2.8116	.87909
Difficult to keep resources	69	1.00	4.00	2.8551	.82739
Limited features compared to Ms Word/Excel	69	1.00	5.00	3.0725	1.00468
Difficult to import/export	69	1.00	5.00	2.9130	.85301
Documents disappeared	69	1.00	5.00	2.8406	1.05193
Valid N (listwise)	69				

From Table 4, we conclude that the most agreeable disadvantages of using Google Docs for teaching and Sharing information are the need to connect to the Internet and having limited features compared to Microsoft Word or Excel.

An optional question in our survey is what other IT tools that users have some experience in teaching and sharing information are. The result is depicted in Figure16.

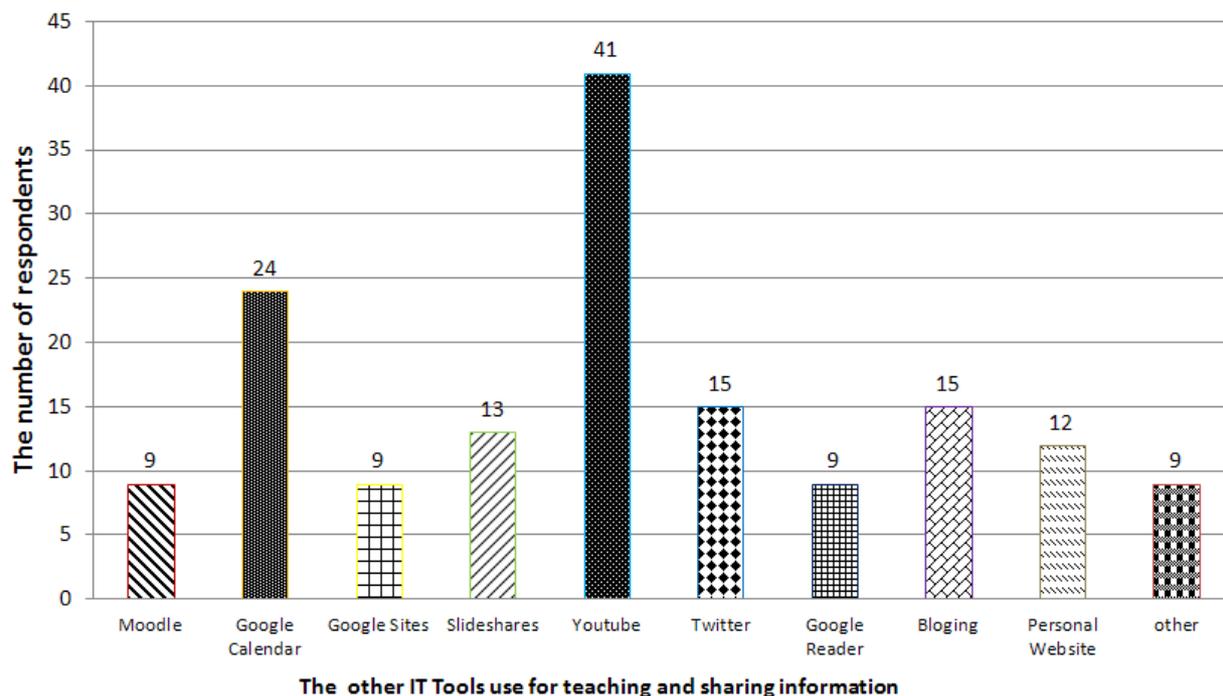


Figure 16: Other Social Media Tools Used by Respondents.

Figure 16 shows several other options of IT tools used for teaching and sharing information. We found that 65% of respondents have used YouTube, 38% have used Google Calendar, 24% have used blogs and Twitter, 21% have used Slideshare, 19% have used personal websites, and 14% have used Moodle, Google Sites, Google Reader and other tools. This means that YouTube and Google Calendar are used by more than half of respondents as learning and teaching tools. Note that respondents may select more than one tool choice for this question; thus the percentages are added up to more than 100%.

#### 4. Conclusion

In this paper, we have presented an approach and have shared experiences in using Facebook and Google Docs for teaching and Sharing information. We show that many students quickly respond to teachers' posts and they also share useful information through the tools. We have also evaluated and analyzed the result of the survey that asked Facebook users about the advantages and disadvantages of using Facebook as well as users who adopt Google Docs for teaching and sharing information. We found that most users agree that the advantages of using Facebook is in terms of communication cost reduction, more participation, convenience and easiness, increasing collaboration, instant interaction, and courage to share. The disadvantages of Facebook are in terms of getting distracted easily and being too open to public. The advantages of Google Docs are in terms of collaborative documents, quick access, easy to share and convenience and easiness, while the disadvantages of Google Docs is in terms of the need to be connected to the Internet and the limited features compared to Microsoft Word and Excel.

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