

Does Facebook group support students' learning?

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+ Overview

- Focus of the study
 - Explore the pedagogical potentials of Facebook group
 - A case in higher education
 - A case in secondary school physics classroom
- Literature review on Facebook group
 - Literature review mainly concentrated in higher education
 - Lack of reported school-based research studies
- How FB is used in two teaching and learning cases
- Conclusion

+ What is Facebook ?

- A Social Networking Site (SNS) or Social Network Community (SNC)
- More than 100 million members, and it is one of the fastest-growing and best-known sites on the Internet today (nyVerdana.com).
- Network was established by Zuckerberg in 2004, initially targeted high-school and college students went global and is actively gaining in popularity with adults of all ages (Tufekci, 2008).
- Stuzman (2006) reported that university students are still the largest users of Facebook.

- Average user has 130 friends
- Facebook is banned in many countries
- Users are above 13 years old
- The fastest growing demographic in America on Facebook: Women 55+.
- The Social Network wins 3 Oscar awards

+ What does it mean to be in Facebook Group?

• Groups are created based on instructor's interests.

• Access to a Group is by course instructor invitation.

• educators can maintain a certain intimacy with invited members

What do members do?

- Share views, ideas, and topics, and participate in discussions
- email notifications of Group postings of any type (wall postings, audio and video files, event invitations, etc.).
- contact other classmates through either the Group application, or Message application to write on their wall or to send a private email.

+ What are the affordances of Facebook?

- Idris & Wang (2009)
 - Pedagogical affordances: Facebook supports innovative learning approaches, motivates students' participation, present multimedia materials, and enables students' reflections.
 - Social affordances: Facebook supports interaction in different scopes (such as peer-to-peer, small group, and whole class) and communication in different formats (asynchronous and synchronous).
 - Technological affordances: Facebook is an open and customizable environment. It is free and supports fast Internet access. Also users can easily move the applications to any positions in Facebook.

+ What do students use Facebook for ?

- (Selwyn, 2009)
 - N=909 undergraduate students (18-25 years old), 4 months
 - Recounting and reflecting on the university experience (lectures, seminars, events...)
 - Exchange of practical information
 - Exchange of academic information (requirements of a course)
 - Displays of supplication and/or disengagement (problems, help, support)
 - Banter (jokes, humor)

+ What do students use Facebook for ?

- Use Facebook to provide an opportunity for students to know each other (Madge, Meek, Wellens, & Hooley, 2009)
 - > Pre-registration undergraduate students (N=213)
 - > Joining Facebook as a means of making new friends
 - > Keeping contact with each other after entering the university
 - > Communicating with other students, NOT with academic staff

+ Does FB support participant discussions?

- (Deschryver, Mishra, Koehler, Francis, 2009)
 - FB (N=15) & Moodle (N=16), university students
 - Students in the FB group did not write longer or more frequent discussion posts than students in the Moodle group
 - They did not perceive a higher level of social presence
- Schroeder & Greenbowe (2009)
 - N=128 undergraduate, FB & WebCT as an informal venue for sharing
 - 59% did not join the FB group
 - The number of posts on Facebook was nearly 400% greater than on WebCT, and the postings raised more complex topics and generated more detailed replies.

+ Does Facebook influence students' academic performance?

- (Kirschner & Karpinski, 2010)
 - 102 undergraduate, & 117 graduate Students; FB users = 141, nonusers = 68, (outliers=10)
 - FB users and nonusers were significantly different from each other with FB users reporting both a lower mean GPA and spending fewer hours per week studying on average than FB nonusers
 - Significant differences were found between undergraduate and graduate students for GPA with graduate students reporting a higher mean GPA than undergraduates
 - The higher-order interactions were not significant

+ Method

- Narrative case 1: Higher education context (2009- till present)
- Narrative case 2: Secondary school physics classroom (2008 till present)



Case 1: Wang's use of Facebook in Higher education context

- Wang used Facebook in his teaching. He did the course design and implementation, the tutor felt that it was easy to set up a Facebook group and had more control than using a commercial LMS. The tutor as a creator of a Facebook group could enrol or remove students easily.
- However, the tutor noticed that it was quite troublesome to add teaching materials. The tutor had to upload files to Google Docs and put the links to Facebook. Comparatively it is easier to upload files in LMSs. Also, moderating online discussions in the Facebook group was harder as the posts were not organized in threads.
- The pedagogical, social, and technological affordances are key aspects that determine the usefulness of an ICT tool or a technology-enhanced learning environment (Kirschner, Strijbos, Kreijns, & Beers, 2004; Wang, 2008).
- Research was conducted on 16 participants (ages from 24 to 55) enrolled in a master course. There were 13 tutorial sessions (39 hours).
- A survey on his master students' experiences in using Facebook group as a LMS.

The screenshot shows a Windows Internet Explorer browser window displaying the Facebook profile of Wang Qiyun. The browser's address bar shows the URL <http://www.facebook.com/qywang>. The page features the Facebook logo, a sign-up button, and a navigation menu with options like Wall, Info, Photos, Notes, and Friends. The profile information includes a profile picture of Wang Qiyun, his name, and a contact information section with the Facebook URL [facebook.com/qywang](https://www.facebook.com/qywang). A Facebook Directory section is also visible, showing a list of letters from A to Z. On the right side, there is a sidebar with a 'Sign Up' button and a 'Wrong Wang?' section.

+ Pedagogical affordance



- Pedagogical affordance refers to the extent to which the Facebook group could be successfully used as a LMS (Wang, 2008).
- The participants found the wall of Facebook group to be a useful platform for sharing information and resources. They felt that the wall was similar to a notice board which updated them regularly on their classmates' activities.

+ Pedagogical affordance



- *Facebook is an excellent social tool. However it's fundamentally flawed as a LMS. Yes, it's free; and that's a big plus for any small school or organisation looking to run a LMS. However, it's also quite limited. Posts are restricted in length, making essays impossible. The interface is mildly confusing at best and idiotically constructed when viewed by anyone who has ever designed user interfaces. Its use as a LMS adversely interferes with normal social interactions (e.g., Why would I want people to know that I responded to some posts on an educational topic when I just want them to see pictures of my kids playing around.)*

+ Pedagogical affordance

- Facebook appeared to be a good tool to support social communication and interaction but not for formal learning.

- A Master program student stated that:

Facebook is a pretty good social networking tool. As it encourages mainly comments or feedback, the length of each reply is therefore rather limited. As regards this, Blackboard provides a better medium for selective group discussions and sharing of document files.

+ Social affordance

- Social affordances refers to the extent to which the Facebook group could provide a safe and friendly environment in which the students could conveniently communicate and interact with one another.

- A Master student expressed that:

There was no close interaction because it was “forced”. Some people in our group made some effort to integrate, but basically it just didn’t work. People didn’t use their own pictures so in many situations I didn’t even know who was posting...

+ Social affordance



- Other students expressed that they were uncomfortable with using Facebook as a LMS.
- Common reasons included
 - (1) they did not want their friends to know what they were doing in the course,
 - (2) they felt insecure as non-registrants for the course might easily join course events; and
 - (3) Facebook was more appropriate for interaction between social friends.

+ Technological affordance



- Technological affordance investigate the extent to which the Facebook group could be used without technical difficulties.
- One noticeable problem was that the institution could have implemented certain measures in the network firewall to disallow some of the features in Facebook, and sometimes the information was displayed incorrectly.
- However, such problem did not happen when they accessed Facebook outside the institution.

+ Technological affordance

- One Master student stated that replying to postings in the discussion forum was not straightforward because the system did not support threaded discussions.
- He had to explicitly specify which posting that his reply was referring to. In addition, four students from each class strongly disagreed that they could upload or download learning resources in other formats.
- Nevertheless, most students agreed that the discussion function in the Facebook group had provided the basic affordance for discussions to take place.

+ Case 2: James' use of Facebook

- This case is narrated from a secondary school in the eastern part of Singapore. It concerns James, Physics teacher and his class. Exploring Web 2.0 tools is his interest and most importantly he loves to share what he has learnt with his peers and students.
- He created various Facebook groups and he has about 1200 friends. He had created Facebook group for his physics class since 2008.
- Question:
 - What happen to his Facebook group?

+ Screen captures

A status update (with photo) of a colleague and also a secondary schoolmate.

Words of encouragement added in the comment of this post strengthen the friendship.

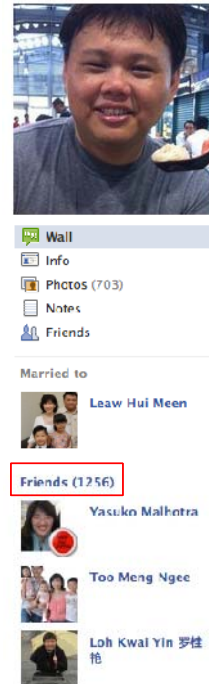
+ Screen captures

A friend's status update...

A conversation with a pupil on facebook. Counselling...

+ Elaboration

- To date, I've a total of 1,256 friends connected with me in Facebook. They are my family members, relatives, schoolmates, colleagues, students and other acquaintance.
- Facebook allows me to be more connected with my friends. I would be able to find out what and how my friends are doing recently through the taglines or photos posted on their "status" update.
- I am also using facebook as a form of communication with my students for them to talk about their learning in physics



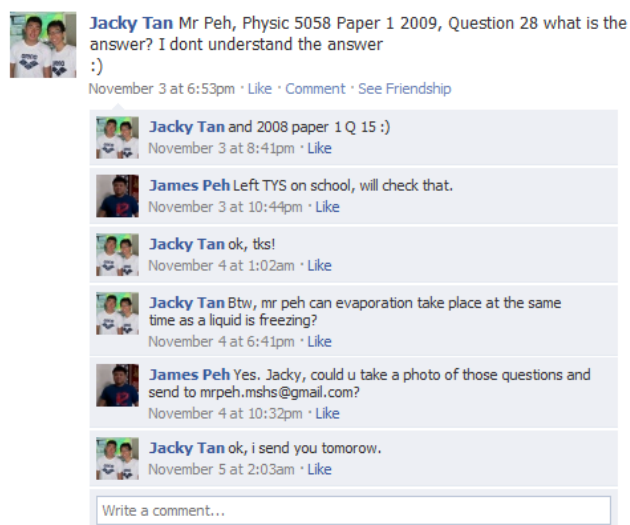
+ Teaching and learning considerations

- Q: Use the FB Group to support group collaboration?
- Q: How do teacher teach using FP ? Is there teaching? Why or why not?
- Q: What did the students learn?

+ Teaching and learning considerations

- Facebook has always been a convenient space for my students to post their queries about their learning. I would be able to provide a timely feedback to their queries or bring these queries back to the classroom.
- The only way to find out whether students are learning through facebook is to examine the comment posted. i.e. are the students able to interpret or explained what was mentioned in their postings.
- Most of the time, facebook has been used a communication channel rather than a collaborative platform. However, there are times when collaboration on learning could take place incidentally.

+ Screen captures



The screenshot shows a Facebook wall post from Jacky Tan. The post asks for help with a physics question from a 2009 paper. A series of comments follow, with Jacky Tan providing answers and James Peh offering additional help and contact information. The conversation ends with Jacky Tan promising to send the questions to James Peh via email.

Jacky Tan Mr Peh, Physic 5058 Paper 1 2009, Question 28 what is the answer? I dont understand the answer :)

November 3 at 6:53pm · Like · Comment · See Friendship

Jacky Tan and 2008 paper 1 Q 15 :) November 3 at 8:41pm · Like

James Peh Left TYS on school, will check that. November 3 at 10:44pm · Like

Jacky Tan ok, tks! November 4 at 1:02am · Like

Jacky Tan Btw, mr peh can evaporation take place at the same time as a liquid is freezing? November 4 at 6:41pm · Like

James Peh Yes. Jacky, could u take a photo of those questions and send to mrpeh.mshs@gmail.com? November 4 at 10:32pm · Like

Jacky Tan ok, i send you tomorrow. November 5 at 2:03am · Like

Write a comment...

A student posted his query on my wall.

+ Screen captures

Jacky Tan Mr Peh, how to explain why as pressure increase, for a fixed volume, the temperature will increase? and why when temperature increase and when pressure is kept constant, volume will increase.
October 29 at 9:48pm · Like · Comment · See Friendship

Frank Lee Kai Min and Jacky Tan like this.

James Peh The pressure (or Gay-Lussac's) law was found by Joseph Louis Gay-Lussac in 1809. It states that the pressure exerted on a container's sides by an ideal gas is proportional to the absolute temperature of the gas. This follows from the kinetic theory—by increasing the temperature of the gas, the molecules' speeds increase meaning an increased amount of collisions with the container walls.
October 29 at 10:07pm · Like

James Peh When a container, with a fixed amount of molecules inside, is reduced in volume, the rate of frequency of the molecules hitting the sides of the container per unit time increases, causing a greater pressure.
October 29 at 10:10pm · Like

James Peh by increasing the temperature of the gas, the molecules' speeds increase meaning an increased amount of collisions with the container walls.
October 29 at 10:11pm · Like

Jacky Tan ok tks, but how do we explain how to explain increase in pressure lead to increase in temperature? not increase in temperature lead to increase in pressure?
October 29 at 10:36pm · Like

James Peh by increasing the temperature of the gas, the molecules' speeds increase meaning an increased amount of collisions with the container walls.
October 29 at 10:11pm · Like

James Peh As the temperature of a gas increases, the gas molecules gained kinetic energy. If the volume is kept constant, the pressure will increase due to the increased rate of the collision between the molecules and the wall of the container. If the volume increases, the pressure will remain constant as the rate of collision between the molecules and the wall of the container remain constant.
October 29 at 10:39pm · Like

Jacky Tan ok. TKS :)
October 29 at 10:48pm · Like

Gabriel Mark Peters So all just say rate of collision luh. Right?
October 30 at 12:05pm · Like

James Peh The pressure is related to the rate of collision of the molecules and the wall of container.
October 31 at 3:56pm · Like

Write a comment...

3 or more students commenting on a query raised, forming a collaborative platform

+ Screen captures

Lewis Huang
18/5/11
Hcmework

Miscellaneous
-Those Whose names are on the whiteboard Pay \$247.95
-Cross Country This Friday (report to school in PL attire)
-Tea appreciation form BY TOMMORROW

English Language
-none

Elementary Mathematics
-none

Additional mathematics
-none

Chinese Language
-none

Higher Chinese Language
-none

Pure Biology
-Check Email regularly for June Holiday Homework

Combined Chemistry
-Check WB page 46 to 53

Combined Physics
-Pay \$ for 10 year series

Social Studies
-none

Geography
-none

on Thursday · Like · Comment · Subscribe

Using facebook as a communication tool to disseminate information on assignment, homework, etc.

+ Technological considerations for teaching and learning

- Technologically (James Peh in exploring FB and observations, likes, dislikes of the features)

Q: What features did the teacher and students find?

Q: How did they use the FB Group? Is it as a LMS ?

+ Technological considerations for teaching and learning

- Facebook connects teachers and pupils in virtual social space.
- Facebook is accessible via mobile devices like smartphones and iPads, users can access it at anytime, anywhere conveniently.
- It is less complex than a LMS hence it does not have special features such as online self-marking quiz and repository.
- Collaboration on learning can take place using the features like postings on Wall and comments, etc. However, the discussion thread is a linear one which limit the extension of discussion.

+ Screen captures



The screenshot shows a Facebook group interface for 'MSHS 3E 2011', which is a 'Closed Group'. At the top right, there is an 'Edit Settings' link. Below the group name, there are sharing options: 'Post', 'Link', 'Photo', 'Video', and 'Question'. The 'Question' option is selected, and a form is displayed with the text 'Ask members of this group:' and a text input field. Below the input field, there is an 'Add Poll Options' link and a blue 'Ask Question' button.

The features in facebook has been found to be less complex than LMS as facebook was built as a social media. However, the discussion was not threaded that further poses incoherent discussion.

+ Common Ground: Lack connected discussion

- **Conducting online discussions**
- Two different ways of conducting online discussions were explored.
 - Use the feedback space under the event function
 - Use the default discussion function located on the Facebook group.
- It was found that using either way for discussions could support basic sharing of ideas but both had limitations.
- Facebook simply added a response to the end of the discussion without taking into account if the response was referring to a particular post.
- Students had to deliberately repeat the previous postings in their present comments in order to make the connection between the two postings.

+ Common Ground: Limited file sharing

- Facebook does not allow for attachment of PPT or PDF or document files
- **Sharing course resources**
 - Course materials may exist in any format such as a text file, a PPT presentation, or a PDF document. But Facebook could only work with materials in either a picture or a video format. A third-party application - Google Docs - was used to negate the shortfall of Facebook.

+ Common Ground: Instructors' assumptions of Facebook Group

- Facebook group created by either instructor or teacher does not necessary attract students' spontaneous learning
- Facebook group is social space first then learning not the other way round
- Facebook group is space to be respected and initiated by any learner spontaneously in the community (This process should not be initiated by instructor or teacher alone at the beginning of the course which is a top down approach)

+ Conclusion

- Develop understanding of 'Facebook' as a Social Network tool and its affordances, in particular, pedagogical affordance
- Engage in critical self-evaluation of using Facebook in teaching and interpreting students' behaviours to learning with Facebook
- Re-conceptualise the pedagogy needed for teaching and learning with Facebook

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