

Facebook Applications to Promote Academic Engagement: Student's Attitudes towards the Use of Facebook as a Learning Tool

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Abstract—The aim of this study is to investigate higher-education student's attitude toward the use of Facebook, as one of the social media tool, to enhance their education. This study was conducted on college students at one of the Jordanian higher educational institution. The number of participants of this study was forty five students who were enrolled in Computer Educational course. This course is either a graduation requirement for all elementary education major students or as an elective course for other student's non-computer majors. We noticed that each student has created a Facebook Page to use for the class purposes and other page(s) for their own personal needs. The result of the study showed that the Facebook site is a useful tool to deliver course materials and support learning. Students have showed their acceptance of this media to communicate with others and to find course materials and references. Most participants felt motivated and enjoyed going through the course when using the Facebook site.

Index Terms—Computer assists learning, educational technology, Facebook for learning, higher education.

I. INTRODUCTION

The development of information technology and computer applications, open the door for many social media tools, such as Facebook, Twitter, and weblogs that help students to interact with each other. Facebook is a popular social media tool that support information exchange between class-mates. Initially, it was designed for social interaction purposes, and later on it became a great potential for broadcasting information and speeding up the learning process. Instructors can use this tool to encourage learning, exchange information, and organize class activities.

The web environment provides many educational opportunities and advantages over traditional classes. It includes additional resources and materials to be utilized during the class period. Also, Additional advantages are the emphasis on the written word through e-mails and/or online discussion to support a deeper level of thinking and generating new ideas. In web environment, a one-to-one relationship between student and instructor may be more emphasized than in traditional teaching settings [1].

Instructors should support students by encouraging them to explore the Social Media resources. This will help them enjoy their learning time. Now a day, by looking at the evolving technology, particularly the one associated with using Facebook in education, it will bring teachers and students closer and increase student's desire and motivation for learning.

A. Use of social media

Facebook is a good educational tool to organize class activities and student's communications. Student may interact with each other for many purposes such as: getting information about class activities, networking with each other, getting class notes, and to set up meetings and to create project groups. There are a lot of advantages for utilizing Facebook as a good tool to support learning, such as: it is a cost-effective teaching resource, network is possible and it is already set-up, and most students are very well familiar with Facebook application. On the other hand, if needed, teachers or students can get help on how to use Facebook by searching on the internet and finding many resources available or may get help from their peers to set up a Facebook account. Facebook is placed in the category of internet based learning that involves students in a way that a traditional teaching method does not. Using Facebook should enhance student's performance, and also, it helps student to become more active and engaged in learning [2]. Online Social activities that use Facebook site will enhance student's ability to stay connected and be active in his/ her community. It could be used by students to interact with instructors for those who have low self-esteem [3]. Social sites have the capabilities to serve as an excellent educational tool. Students have used online environment for building, buying, and creating educational tasks. It provides instructors and students the learning flexibility environment, by having a chance to continue their education from home on their own pace and time. Students enjoy this environment and it is an easier way to interact with their professors [4].

In this century the duty of the educators should focus on providing students with high quality education, utilizing methods and resources that bring students back to caring more about their education. This will go on the same path with student's need, trying new ways, and not keeping stock in the old style way of teaching. The old

style will impose some restrictions on students such as: having a limited computer access, more restricted web-page browsing, no cell phone allowed, etc. The student deserves to have a positive educational environment, and these restrictions will not help. Students need to use different type of technology without having the fear of the unfamiliar or may lose control which will cause more rejection of technology [5].

Facebook frequently used to communicate with others through writing private messages, chat, comments, wall posts-messages, and creating groups that appear on user's personal page [6]. In teaching-learning process it could be used to work on class assignments, to facilitate direct engagement with academic work by chatting, and to set up times for face-to-face meetings. It also could be used to facilitate social engagement around future academic plan [7]. As shown in Fig. 1.



Fig.1. Creating groups

There are some privacy concerns when utilizing the social network sites in learning needs, because it supports freely interaction between students and their professors, and the consistency of using Facebook. On the other hand there are positive attitude toward the application of Facebook in education. It helps instructors connect with their students and discuss their assignments, upcoming events, post useful links, and samples of work. Students can use Facebook sites to check out their teachers' profiles to read his personal information, interests, and background and friends, which could enhance and motivate learning climate [8]. Facebook is a good educational opportunity to engage students in learning. Another advantage is that it helps bring back students who dropped out of school, and motivate them for learning. It makes the professor more approachable by connecting with his students via his Facebook site. Also, it encourages students to learn in a collaborative environment [9]. Using Facebook group page can enable student to communicate with other students. This communication is considered a helpful process to achieve educational goals and to work as a team to finish group projects. So, using Facebook in school is considered an interesting method [10].

In higher education settings, Facebook sites were used

mainly for social interaction purpose and for student work in class research projects. A lack of control by instructors is the most concern issue regarding the use of Facebook sites for academic purpose. Facebook site is a medium for students' interaction, but has a limited role play in promoting student engagement in learning process. It could lead to be used as a vehicle for information exchange, rather than as a vehicle for strengthening students learning. Using Facebook sites in an organized educational plan should help creating a positive interaction that leads to a successful learning environment [11]. Using network sites should help students maximize their knowledge by providing them with easier access to references, such as professional research papers. This process may improve student's learning strategy, as well. They can access digital library to read materials that enrich their knowledge and share their opinions about specific class [12]. A social network media has been used in education as a tool to enhance learning. Most research has contradictory results related to the benefit of using Facebook in education. Some research support the use of Facebook sites and found that it is a good resource for learning, and other research result was against using it as a learning strategy [13]. The use of Facebook has determined and influenced by some social factors that are related to different aspects such as: user's experience with the website, culture may as well play a role in how users employ Facebook, use of Facebook is also influenced by peer-to-peer experience with the website, and gender is found to be a possible factor influencing Facebook use [14].

Facebook has been used, from the beginning, as a social media that leads to be a good representative of people's opinion. It gives a good indication on the achievements of specific goals related to progress of heritage-based tourism orientation. People sharing through Facebook recorded comments, opinions, pictures, and information that are related to specific hot topics. Social networking applications such as: Facebook, Twitter and YouTube became people's daily activities [15]. There are many studies, related to this existing study, indicates that collection of information about the use of social multimedia such as Facebook and Blackboard as a course delivery method. They found that using social media sites as a delivery tool for course materials and communications was useful and enjoyable. They also recommended conducting more studies to examine its effect and benefits [16] and [17].

The use of social media such as Facebook as the related studies found it considered as: a good tool for learning and teaching settings, it is consider as a best practice process in education, it is a successful method that motivate students learning and teaching, it also, could be helpful process to be used for quizzes, presentations, and announcement [18], [19], and [20]. Using Facebook in teaching and learning process could foster learning in both formal and informal setting [21]. Facebook applications could be used for class assessment, self-directed learning, group learning activities, and as a learning management system [22]. A study conducted to

collect student's attitude toward the use of Facebook as a learning instruments. It found that students felt satisfaction with the use of online environment to support learning interaction [23].

B. Facebook

Facebook was started in 2004 in Harvard University by student Mark Zuckerberg. He created a web site as a social media for Harvard students to communicate with each other. By late 2004, more than half of Harvard students were using the web site. After that Facebook was then opened, eventually, at most colleges across the United States and Canada. Later on, Facebook site was released worldwide in year 2006. The Facebook site now is open to anyone age 13 and older with a valid e-mail address. The Facebook site includes the following areas: picture profile, Contact information, the Wall, status update as shown in Fig. 2, and news feed [24]. So, from having a site for social communication between students belonging to one university, Facebook site has become a global social network and part of our daily live activities. People use Facebook to interact by posting messages and pictures, it also been used to present commercial products and services, companies, organize, and apply for jobs. Also, it been used by students and educators for transmitting research materials and professional work and projects.

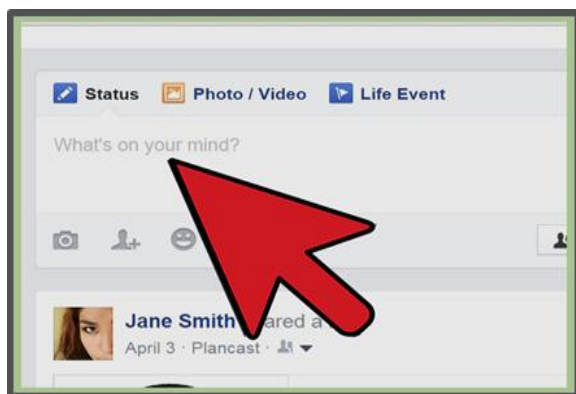


Fig.2. Status update

The basic Facebook profile includes the following areas: profile picture; Contact information; The Wall; Status update; News Feed. Facebook friends and groups sites; and area uploading or erase photos and videos [25]. Facebook site has five major components: News Feed, Filters, Requests, Suggestions, and Highlights. These components work as following:

- News Feed. Users can see others activities on Facebook such as: Wall posts, uploaded Photos or videos, and posted links.
- Filters. It directs users to manage activity in the homepage.
- Requests. It informs users with any request or invitation then users has the option to accept, Ignore, or Block.
- Suggestions. It inform users with any suggestions made by friends, groups or pages uploaded by

Facebook that may the user know or be interested in

- Highlights. It informs users of any friend's comments on pictures or videos they have liked [26].

There are two important tabs in Facebook site: first tab is the wall, which is the user's main "space" on Facebook. Second tab is the Info, which considered as the user's space, where the user can type in information and can add or remove data at any time.

Facebook applications include: Notes, Photos, Links, Video, Games, and Quizzes. The personal Facebook site is a user friendly, easy to set up and use. It includes: News-Feed that have the updated list of what friends are doing and posting. It divided into two portions: Top News and Most Recent. This page allows users to manage their personal friend's list by editing information, or adding and deleting friends as shown in. Using the Privacy Settings area that have the ability to protect privacy by having the option to control what others see, right down to individual photo albums, or various pieces of personal information. Other Facebook feature is the Like Comment area that allows friends to quickly show support for one another's content by clicking a "Like" button to let the others know that the user liked the content [27]. As shown in Fig. 3.

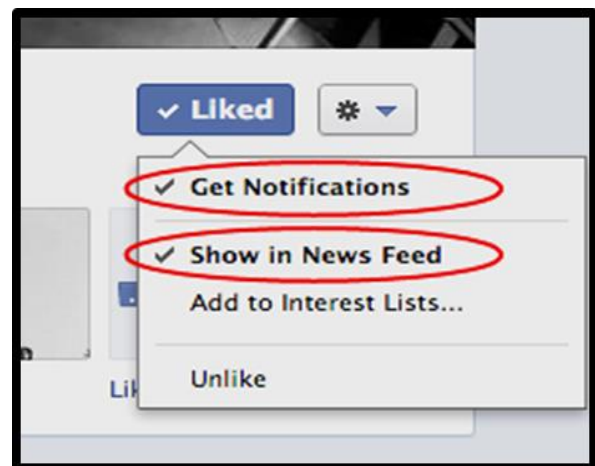


Fig.3. News Feed.

II. THE STUDY

A. The important of the study

The purpose of this study is to examine the use of Facebook in university by students and teachers for educational purposes in computer courses. The goal of the study was to determine if the implementation of social networking media such as Facebook would support student's education process. Researcher also sought to understand how students use social networking, outside the traditional meeting and classroom space, and how they perceive the use it for educational purposes.

B. Research Questions

The following are the research questions were used to guide the design and implementation of this study:

1. What are the student's perceptions toward using Facebook site as a tool to support learning process?
2. What are the most and least part of the Facebook site services that were used during the course term?
3. Are student's perceptions toward using Facebook, as a supporting tool, for course delivery vary based on selected variables, such as: year of study, past experience with Facebook, and student specialization?

III. METHODOLOGY

The present study has three phases. Phase 1: students were asked to create a Facebook page to be used for the course activities. Phase 2: students were asked to make invitation to other students to be a friend to each other on the course Facebook site. Phase 3: students were asked to use the Facebook page created for the course, to communicate with other students and the instructor. The instructor posts certain rules and directions to follow during the course period.

A. Sample

The present study was conducted at Al Al-Bayt University during the first semester of 2013-2014. Al Al-Bayt University is one of the higher education institutions in Jordan. Participants of this study were 49 students who were either, enrolled in the Computer Educational course which is a requirement for graduation for all elementary education major students, or other students taking the course as an elective for other majors. The main objective of the study was to learn about using computer applications as educational tools to support education. All participants of the study belong to the same academic background.

B. Research Instruments:

1. Course Facebook site:

To accomplish the aims of the study, a course Facebook page was created by the instructor and each student was asked to create their own Facebook site that different from their personal account if any. Since most students were familiar with the technology, it was a simple transition for them to keep up with their class work using a social network. This page includes the following main places for: picture profile; contact information; post comments; status update; updating information about the Facebook friends and groups sites; and uploading or erase photos and videos.

2. The Survey

The data for this survey were collected by means of a questionnaire intended to elicit student's perceptions toward the use of Facebook site, as a social media, to support traditional teaching method. The survey questionnaires consist of 34 items which was developed

by the researcher. The student's responses were marked directly on the survey. The questionnaire items were made in the form of statements to which the student had to respond on five-point scale. This scale spanned between "strongly agree" to "strongly disagree". The questions were intended to gather information about student's satisfaction with the use of Facebook site as a course communication tool.

To insure the validity of the research method, it was sent to five technology education faculty members for evaluation. These members were asked to evaluate the questionnaire method and recommend any changes that could help the study. After this, a good feedback was received and some recommendations were made and taken into consideration.

C. Procedure

During this study the instructor:

- Created a Facebook site representing the computer in education course materials and instructions.
- Separated the course Facebook page from his personal page and communicates with students through it.
- Informed his students that they will not be viewing their profile page, and setting their page to "limit" insures that they will not see anything the student does not want them to see.
- Posted on the course Facebook site the contents, videos, pictures, and messages that are related to the course work in a weekly basis.
- Created a "Facebook Office Hours," to allow students to communicate with him using Facebook chat. This will give the student the opportunity to ask questions or get additional feedback.
- Made announcements for exams, quizzes, assignments, or general college events that he would like this student to know about it.
- Informed students about their work, absence or improvement during the semester, but in a private message by the Facebook site on student's emails. During the study period the students were asked to do the following as shown in Fig. 4.

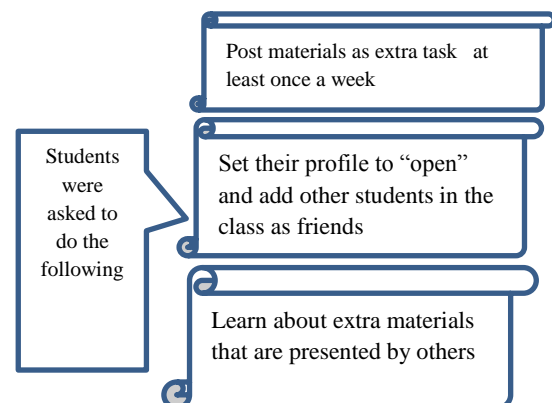


Fig. 4. Steps students follow during the class period

IV. RESULTS AND DISCUSSION

A. Demographics

As shown on Table 1, the participants of the study were the students who registered in the course during the first semester (49 students). It shows that as to the year of study, 49% of the participants were in their first and second year; 51% were in their third and fourth year. Regarding the third demographic question about having computer experience, Table 1 shows that 46.9% replied that they have computer experience, and 53.1% replied that they did not have computer experience. It also shows that the participant's majors were 32.7% from Science College and 67.3% from Humanity College.

Table 1. Students Answered for the Demographic Questions

| Year | | Facebook Experience | | Major | |
|---------------------|---------------------|---------------------|------|-----------------|------------------|
| First & Second year | Third & Fourth year | Yes | No | Science college | Humanity College |
| 49 | 51 | 46.9 | 53.1 | 32.7 | 67.3 |

The Results of the study that is related to the first research question "What are student's perceptions toward using Facebook site for educational purposes". It was revealed that the descriptive analysis for the 34 items of the survey method that was used to describe students' perceptions. It indicated that the overall mean score was

3.71, which indicates a positive student's attitude toward the use of Facebook site for educational purpose.

The results related to the second research question "What are the most and least part of the Facebook site services that were used during the course term" were shown in Table 2. It revealed, based on the highest mean value, that the most important item was number 7 with a mean value of 4.2. "I used the Facebook site to find different multimedia that helps simplifies the class materials ". It was noticed that questions 18, 34, 9, 24 were very important and have the highest means (4.1, 4.04). These results describe the student's most used activities in the Facebook site. The lowest mean was 2.9 for item 23. "The site was used to get the comments and grading homework".

Results related to the third research question "Are students' perceptions toward using Facebook site as a supporting tool for course delivery differ based on selected variables: year of study, past experience with Facebook, student specialization?" It revealed that There were no statistically significant differences at ($\alpha = 0.05$) in the use of Facebook units due to students majors. There are statistically significant differences at ($\alpha = 0.05$) in the use of Facebook units due to the year of study variable, in favour of, the third and fourth year students. The result also, revealed that there are statistically significant differences at ($\alpha = 0.05$) in the use of Facebook units due to the past experience with Facebook variable. In favour of students with no Facebook use experience.

Table 2. The responses for the survey items were reordered based on the highest mean value

| Item# | | Mean | Std. Dev |
|-------|---|------|----------|
| 7 | I used the Facebook site to find different multimedia that help simplifies the new topic | 4.2 | 1 |
| 18 | The site was used to add or remove friends | 4.1 | 1.026 |
| 34 | I think that using Facebook site for learning consider as an active learning and it is a good tool for learning | 4.08 | 1.187 |
| 9 | The Facebook site was used to send students activities and exercises to course site | 4.04 | 0.865 |
| 24 | The site was used to read the course tasks deadline | 4.02 | 0.946 |
| 10 | I used the site to get information about deadlines homework | 4 | 1 |
| 20 | The site was used to get information about the first, second, and final exam times | 3.94 | 1.008 |
| 8 | I used the Facebook site to get instruction about students duty and requirements | 3.92 | 1.096 |
| 1 | Facebook gave me the chance to choose the writing language | 3.9 | 1.085 |
| 25 | The site was used to get information about day by day comments from the instructor | 3.88 | 1.013 |
| 26 | The site was used to add, delete , update materials | 3.88 | 0.992 |
| 11 | The site was used to get information about instructor feedback and comments | 3.86 | 1.041 |
| 16 | The site was used to see others reactions and response to discussions | 3.86 | 1.099 |
| 28 | The site was used to get information about group task and progress | 3.86 | 1.061 |
| 13 | I used the chatting for fast communication with others after class time | 3.82 | 0.905 |
| 33 | The site was used to get updates about the personal page and note | 3.76 | 1.465 |
| 19 | The site was used by instructor to direct our discussion and participations | 3.73 | 1.335 |
| 15 | The site was used to discuss and answer questions that related the class topics | 3.65 | 1.165 |
| 6 | I used the Facebook site to read class materials and lectures. | 3.55 | 0.959 |
| 30 | The site was used to add webs addresses that support the course topics | 3.55 | 1.292 |
| 4 | I used the Facebook site to get information about class terms and references | 3.53 | 1.12 |
| 3 | I used the site to get information about class schedule and dates | 3.51 | 0.938 |
| 22 | The site was used to announce each student task | 3.49 | 1.12 |
| 29 | The site was used to download files and materials as an extra references | 3.49 | 1.227 |
| 14 | I used the site to add class news and updates | 3.43 | 1.099 |
| 17 | The site was used to response to other students imported pictures and materials or pressing like | 3.31 | 1.025 |
| 21 | The site was used to explain difficult terms | 3.22 | 1.388 |
| 23 | The site was used to get the comments and grading homework | 2.9 | 1.373 |

These findings suggested that using Facebook site for educational purposes on higher education is likely to be a motivating factor for teaching and learning process. The Facebook site for this study have created an active learning environment that could find equal opportunities to practice communicate and have feedback from the instructor and his students. The researcher, as a faculty member in higher education institute, were very motivated to use social media, such as Facebook, Twitter and Whats-App groups, as a teaching delivery method. It can be part of our curriculum; also can be used in distance learning settings. Higher education teaching as the researcher work experience is going toward using the social media as part of the communication process between the instructor and students, and between students themselves as an informal learning settings

V. CONCLUSIONS

In conclusion, it seems that Facebook site as a social media is a useful tool to be used to deliver course materials and support learning. Students felt comfortable with the use of the Facebook site. Students who registered for the course indicated their acceptance of this media to communicate with others and find course materials and references. It seems that students with different year of study, Facebook experience, and major felt good about using this social media.

The result of this study was close to the result of other study made by researcher which was conducted to find the effect and attitude toward the use of social media in higher education, such as a study that focused on the use of Blackboard site as course delivery tool in higher education. The finding of this study showed that most students felt that using Blackboard as one social media site to deliver class material and interact with students was useful and enjoyable [16]. The use of computer applications considered as a good teaching method [28].

Overall, the results of the study indicate that student interest in the use of Facebook site, as social media, to motivate them and give them the opportunity to use technology in a useful way. As a result of the study the majority of students adjusted their skills quickly to use the Facebook site efficiently. They felt that they encourage using this media in higher education and they have a good learning experience during the process.

In the light of the results of this study, some recommendations were suggested for the concerns: Conduct another study to investigate the effectiveness of using Facebook site for cooperative learning and group project, and conduct another study to investigate the use of Facebook to support different courses from different area of specialization. Further research needs to be conducted to determine whether the use of this media as a learning tool for higher education students could affect their achievements. Finally, it is recommended that the study be repeated with a larger sample size from different universities and specialization area.

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