Academic Attitudes towards the Use of Mobile Phone Technologies for Knowledge Sharing in Higher Education Institutions: An Exploratory Survey

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Abstract
The potential of mobile phone technology (MPT) is huge and it has broken ground for enhancing knowledge sharing activities among academicians in Institutions of Higher Education (IHEs). However, it was found that there was lack of academic research on the use of MPT for knowledge sharing purposes in IHEs. In IHEs, MPTs such as cell phones, smart phones and PDAs that have interesting features like camera, video, memory, MP3 player, internet and finally, the possibility of being present using a device, makes it possible for people to study anywhere, anytime. This study aimed to understand academicians' general attitudes towards the use of MPT in IHEs.

Key words – Mobile phone technology, knowledge sharing, institutions of higher education, academicians

Introduction

In recent years, the use of Information Technology (IT) in universities and colleges broadly increased for the purpose of enhancing the administration and the teaching and learning efficiency (Abdel-Rahman & Ayman, 2011). As the population of campuses expands, so does the improvement of technologies. In Institutions of Higher Education (IHEs), technologies of mobile phones such as cell phones, smart phones, PDAs and telephone provided with interesting features like camera, video, memory, MP3 player, internet and finally, the possibility of being present using a device, by allowing for study anywhere, at anytime (Wilen-Daugenti, 2007). Junior et al. (2008) defined mobile technologies as "mobile technologies are exactly what their name refers to, i.e., portable technology that can be moved from one place to another without any loss". There are several advantages of mobile technologies. Few of them are the independence in learning anywhere and at anytime, faster and convenient communication as well as rapid access to a variety of different sources. Moreover, the ability to conduct impossible experiments in an authentic way is truly pleasant. It is safe to experiment with them because the error will only affect in simulation environment (Smidts et al., 2008). Additionally, Anderson and Rainie (2008) concluded that the mobile phone technologies will be the fundamental and compulsory connection device to the internet for everyone in 2020.

Mobile phone technologies in IHES

Academicians see mobile phone technologies as their big savior when it comes to managing the studying tasks. Plenty of important features such as address books, devices of file storage, cameras, video recorder and internet contributed to the studying flexibility in IHEs. Today's mobile phones are as influential as computers. Nowadays, it is impossible to resist mobile phones. Each and every aspect of life highlights the importance of mobile device. As the international barriers get smaller due to globalization, the need of communication is inevitable. Consequently, it becomes more and more compulsory and necessary to have mobile phones. All walks of life celebrate the use of mobile phone technologies, and so do academicians. Undeniably, there is a myriad of activities for both academicians and students provided by mobile phone technologies such as: uploading and downloading songs, movies and videos to cell phones, MP3 player, iPod, sending and receiving e-mails, Instant Messages (IMs), Short text Messages (SMS), transferring files, photos or other data , interactive games, searching for information or services on the web, making video calls, personal organizer (e.g., diary, address book), in-class surveys/questions, in-class media sharing, attendance monitor, distant privileges of library, peer locator, free or inexpensive VoIP phone as well as notification of the security. Academicians who have experienced dealing with mobile technologies in studying have several reasons to continue using them. Firstly, to be able to communicate with other people, to seek information, to take pictures, to create clips and to share with others is what most people have become used to (Smidts et al., 2008). The following studies have examined some of the activities of the mobile phone in IHEs. Corbeil and Valdes-Corbeil (2007) have explored mobile phone activities in which academicians and students engage in their study. According to their findings, these technologies can be applied in many activities such as: Uploading and downloading songs/movies/video clips, sending and receiving e-mail, Instant Messages (IMs), Short Text Messages (SMS), transferring files, photos or other data, playing the interactive games, transferring photos or other data, downloading Podcasts of appropriate instructive material along with audio and video lectures, reading e-books, reconsidering course study and preparing for exams, showing their jobs(presenting tasks?) and sharing plan results, providing visual material, adding a microphone to their mobile to capture material for educational use, using an MP3 player to download and listen to Podcasts and audio lectures and reconsidering the material of courses and studying for exams, audio books and, with some devices, as well as the most widely used nowadays, recording lectures. Furthermore, findings from studies conducted by Whilst Kennedy et al. (2008a; 2008b) mobile phone technologies allowed users to conduct 9 activities in Institutions of Higher Education as the following: sending pictures or movies to colleagues, using mobile phone as MP3 player, accessing information or services on the web, making video calls, taking digital photos or recording movies, sending or receiving email, using the mobile phone as personal organizer (e.g., diary, address book), sending or receiving SMS to colleagues, and calling colleagues or others Besides, according to studies performed by Wilen-Daugenti and McKee (2008), mobile phone technologies could be used for many applications for academicians and students both inside and outside the IHEs as example field below;

- In-Class Surveys/Questions: Students may submit the answers to questions or surveys given by an academician through their mobile phones
- In-Class Media Sharing: During lectures, students are able to share interesting pictures or videos to their friends by emailing the files to the lecture hall's projector
- Attendance Monitor: An academician may demand students to do a virtual "roll call" by transmitting a message from their mobile phones
- Course Materials: During the lecture, an academician can directly send the course materials to students' phones

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- Remote Library Privileges: The private privileges of library are also granted to students who can use their mobile phones to search articles without the need of using a proxy server
- Peer Locator: Based on netstudy's accuracy, peers may be alerted when their contacts are close by the mobile phones
- Free or Inexpensive VoIP Calling: Universities may offer cheaper international or local calls made within the campus for students who might really need it
- Position System: By sharing information regarding the user's actual place, mobile phone serves as a guide of virtual turn which assists the presence of students around the campus
- Notification of the Security / Emergency: Depending on the user's location, a warning notice is sent immediately to every mobile phone via email and voicemail, by informing the best way to leave the campus or a particular building in case of emergency

Mobile technology provides an opportunity for the new generation of people offering better communication and activities without taking into account place and time. This study has outlined the use of mobile technologies for knowledge sharing purposes in IHEs. The benefits of mobile phone technologies have been broadly discussed in general. Despite the fact that the advantages of mobile phone technology are clear, only a small number of Institutions of Higher Education are equipped with integrated mobile phone technologies in their environments (Joan and John, 2007; Kim et al., 2006). Figueira (2007) pointed that "as of August 2007, however, there are no universities or degree awarding programs with a website designed for downloading on a mobile device" (p.1). Sufficient technological means to access mobile devices are not widely used by the academicians in Institutions of Higher Education (Junior et al., 2008). Peters (2007) conducted a research on 29 manufacturers of mobile devices, businesses and education suppliers and found that mobile phone technologies are generally used in some commercial organizations, but found that Institutions of higher education limitedly use them. The purpose of this study is to understand academicians' general attitudes towards the use of mobile phone technology in IHEs.

MATERIALS AND METHODS

In this study, primary and secondary data were collected. Questionnaires were distributed to the academic staff at Jerash University (JU). JU is a private Institution of Higher Education located in northern Jordan. The academicians who came from Private Institution of Higher Education (PIHE) are the sample of this study. The title of academicians was different in terms of: Lecturer, Assistant Professor, Associate Professor and Professor. 120 questionnaires were distributed to academicians at JU. The sampling was based on convenience and 99 participants successfully answered with response rate of 82.5 %. The analysis of the survey results is presented based on a valid response of 99 academicians of JU. Data collection for this study was undertaken during the month of May 2011. In gathering information pertaining to the study, a questionnaire was used as the main instrument for data collection in this study. A five point Likert-type scale was used in this study and the academicians were required to state the extent to which statements in their point of view were important or not important for them as academicians. The Scale was (SD= Strongly Disagree, D = Disagree, N = Neutral, A = Agree and SA = Strongly Agree).

Results

Respondent's profile and background information: Based on the demographics and other personal background information obtained, out of 99 respondents, 67.7.0% were males. The majority of the respondents were married 73.7 %. 44.4% of the respondents were 41-50 years old and 31.3 % were 31-40 years old. Most of the respondents were Assistant professors 52.5 %, followed by Lecturers 28.3%, Associate professor 18.2% and Professor 1.0 %. Table 1 below gives the respondents' demographic profile:

Table 1: Respondents' demographic profile

Respondents' Profile	Classification	Frequency	%
Gender	Male	67	67.7
	Female	33	32.3
Status	Married	73	73.7
	Unmarried	26	26.3
Age	20-30	18	18.2
	31-40	31	31.3
	41-50	44	34.4
	Above 50	6	6.1
Title	Lecturer	28	28.3
	Assistant Professor	52	52.5
	Associate Professor	18	18.2
	Professor	1	1.0

Connecting to internet through mobile phone technologies: Fig. 1 shows that the majority of respondents - 75.3%, connects to internet through mobile phone technologies and only 24.7% don't. As evidenced by various studies mentioned above, mobile phone technologies give the academicians the opportunity to connect to internet and to the world any time anywhere. In addition, mobile phone technologies could be able to increase the range of personalized and customized communication, entertainment, relationship management and service functions.

Academician's preferences of mobile phone functions: In this section, the academicians were given a list of fifteen mobile phone functions and they had to choose one or more of these functions. The results are shown in table 2. According to the findings, 100% of respondents considered the function of calling as being the most important function, where 98% believed that the second important function was SMS. In addition, the findings show that the respondents who have chosen calendar were 79%, camera 77%, alarm/reminder 75%, phone book 70%, listening to music 61%, browsing the Web 53%, games and sending e-mail 42%, MMS 41%, voice recorder 38%, dictionary and audio file storage 29% and chatting 21%.

Attitudes towards the use of mobile phone technology in IHEs: The respondents were given a list of six items to assess their opinions and attitudes towards using mobile phone technology. A big majority of the respondents 93.9% were 'strongly agreeing" or "agreeing" that "using mobile phone technology is/might be an excellent idea" (Table 3). When they were asked to indicate their opinion on the statement that "using mobile phone technology is/might be a pleasant experience", 81.8 % of the respondents were "strongly agreeing" or "agreeing" to this stance. Although the majority of the respondents was 89.9 % - "strongly agreeing" or "agreeing" that "using mobile phone technology is/might be beneficial to them". When the respondents were asked to indicate the degree to which "using mobile phone technology increases knowledge in their field" 45.4 % of the respondents were "strongly agreeing" or "agreeing" to this stance, while 36.4 % of the respondents were "neutral" to this stance and 18.2% were "disagreeing" with this viewpoint. This fact does not provide any clear majority opinion on this attitude. In addition, when the respondents were asked to indicate the degree to which "using mobile phone technology increases their motivation towards study", 66.6 % of the respondents were "strongly agreeing" or "agreeing" with this attitude, while 23.2 % of the respondents were "neutral" to this attitude and 10.1 % were "strongly disagreeing" "disagreeing" with this point of view. Finally, the big majority of the respondents were 93.9% "strongly agreeing" or "agreeing" that "using mobile phone technology increases their communication with colleagues", while 6.1 % of the respondents were "neutral" to this attitude. Overall, the findings pointed out that there is a highly positive attitude towards the use of mobile phone technology in Institutions of Higher education (average response of 4.185 for the six items).

Fig. 1: Academicians' opinions about connecting to internet through mobile phone technologies

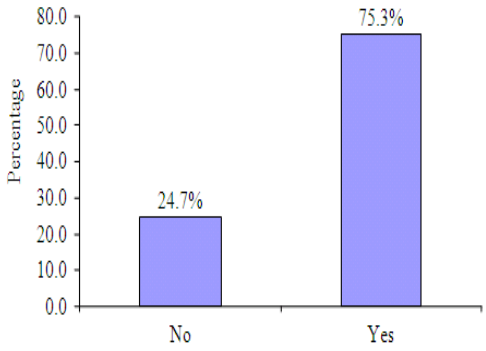

Table 2: Academician's Preference of Mobile Phone Functions

No.	Mobile Phone Functions	%
1	Calling	100%
2	SMS	98%
3	Calendar	79%
4	Camera	77%
5	Alarm/reminder	75%
6	Phone book	70%
7	Listening to music	61%
8	Browsing the Web	53%
9	Games	42%
10	Sending e-mail	42%
11	MMS	41%
12	Voice recorder	38%
13	Dictionary	29%
14	Audio file storage	29%
15	Chatting	21%

Table 3: Academician's Attitudes towards the Use of Mobile Phone Technology

Attitudes	Number of responses (%)				
	SD	D	N	A	SA
Using Mobile Phone Technology is/might be an excellent idea.	0 (0.0 %)	1 (1.0)	5 (5.1)	39 (39.4)	54 (54.5)
Using Mobile Phone Technology is/might be a pleasant experience.	0 (0.0 %)	0 (0.0 %)	18 (18.2)	40 (40.4)	41 (41.4)
Using Mobile Phone Technology is/might be beneficial to me.	0 (0.0 %)	1 (1.0)	9 (9.1)	35 (35.4)	54 (54.5)
Using mobile phone technology increases my knowledge in my field	0 (0.0 %)	18 (18.2)	36 (36.4)	22 (22.2)	23 (23.2)
Using mobile phone technology increases my motivation towards work.	1 (1.0)	9 (9.1)	23 (23.2)	33 (33.3)	33 (33.3)
Using mobile phone technology increases my communication with colleagues.	0 (0.0 %)	0 (0.0 %)	6 (6.1)	30 (30.3)	63 (63.6)

Conclusion

The quick embracement of new technologies of mobile phone gives both academicians and students anywhere a diversity of options regarding how they accept useful information. The Institutions of Higher Education are in the first rank to know and to make easier the integration of technologies of next generation. Both academicians and students can take more responsibility for their own study. The mobile phone technology has made knowledge easily accessible to those who request it. New technologies also help making easier the knowledge approach, creating opportunities for the collaboration and eliminating barriers among academicians on and off the campus. Mobile phone technologies give an opportunity to provide a new generation of people with means of communication and activities without taking into account the place. This study outlines the potential use of mobile phone technology for knowledge sharing among academicians in Institution of Higher Education. The usefulness of mobile phone technologies has been demonstrated in recent times in most of the patterns of life for people on a personal level or generally. The issues discussed here require additional research. Since the survey was limited to one IHE, the outcomes might not be appropriate to all IHEs. Thus, future research should

consider larger sample size from different IHEs. In addition, more studies need to be carried out using other methodology such as interviews.

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