

GLOBAL JOURNAL OF COMPUTER SCIENCE AND TECHNOLOGY NETWORK, WEB & SECURITY Volume 13 Issue 2 Version 1.0 Year 2013 Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc. (USA) Online ISSN: 0975-4172 & Print ISSN: 0975-4350

The Intensity of Social Networks Group Use among the Students of Jordanian Universities

By Mustafa Jwaifell, Hasan Al-Shalabi, Swidan Andraws, Arafat Awajan & Adnan I. Alrabea

Al-Hussein Bin Talal University, Jordan

Abstract - The paper investigates the intensity of (Social Networking Sites) SNSs use among the students of Jordanian universities. Four universities were involved in this study, while 727 undergraduate students respond to a questionnaire that measured their intensity of SNSs use. To answer research questions, the researchers used descriptive statistics, ANCOVA, Chi-Square, and T-test. The data analyses revealed significant differences among students' uses of SNSs. The variables consisted of university, faculty, gender, and year level. The study recommendation was the focus on integrating SNSs within learning management systems.

Keywords : social networks sites (SNSs), higher education, academic use, academic relations, university students, jordanian university.

GJCST-E Classification : J.4



Strictly as per the compliance and regulations of:



© 2013. Mustafa Jwaifell, Hasan Al-Shalabi, Swidan Andraws, Arafat Awajan & Adnan I. Alrabea. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction inany medium, provided the original work is properly cited.

The Intensity of Social Networks Group Use among the Students of Jordanian Universities

Mustafa Jwaifell^{α}, Hasan Al-Shalabi^{σ}, Swidan Andraws^{ρ}, Arafat Awajan^{ω} & Adnan I. Alrabea^{\$}

Abstract - The paper investigates the intensity of (Social Networking Sites) SNSs use among the students of Jordanian universities. Four universities were involved in this study, while 727 undergraduate students respond to a questionnaire that measured their intensity of SNSs use. To answer research questions, the researchers used descriptive statistics, ANCOVA, Chi-Square, and T-test. The data analyses revealed significant differences among students' uses of SNSs. The variables consisted of university, faculty, gender, and year level. The study recommendation was the focus on integrating SNSs within learning management systems.

Keywords : social networks sites (SNSs), higher education, academic use, academic relations, university students, jordanian university.

I. INTRODUCTION

he Arab spring was influenced dramatically by the Social Networks Sites (SNS), while youths had played a great part in this spring. The population of Jordan is consisted of 65% of youth; most of them are enrolled in universities. Academics and policy makers are committed to make use of Social Networks for the benefits of teaching and learning and integrating SNSs within Learning management systems or even giving educators attention to exploit relative advantages of SNSs academically and implement new innovations of methodologies such as Mobile learning or interact with students through Internets' technologies.

II. BACKGROUND OF THE STUDY

SNSs can be described as online community that gathers people with same interests. Kwon and Wen (2009) defined SNSs Sites as an individual web page which enables online, human-relationship building by collecting useful information and sharing it with specific or unspecific people. Boyed and Ellison (2007) defined SNSs Sites as web-based services that allow individuals to construct a public or semi-public within a bounded system. Facebook can be considered one of the most SNSs that influenced online communications between people, even this relationship shifted to a specific enrollment of relationship. Hewitt and Forte (2006) described the results from ongoing investigation of student/faculty relationships in the online community Facebook to understand how contact on Facebook was influencing student perceptions of faculty, where the result of this survey point to one third of the students they surveyed did not believe that faculty should be present on the Facebook at all. Those finding are very interesting while the Arab universities students insists to have faculty member e-mail to interact with him as we noticed all the time in our experience.

The students' experiences and uses of SNSs can differ according to their needs, which may differ from country to another. Pempek, Yermolayeva, and Calvert (2009) investigated experiences of 92 undergraduates students by completing a diary-like which measure each day for a week, reporting daily time use and responding to an activities checklist to assess their use of the popular Social Networking site, Facebool, where they concluded that they students spend approximately 30 minutes throughout the day as a part of their daily routine, beside this result, the use of Facebook in a style of one-to-many was a tool of communicating through Facebook.

The uses of SNSs can be one-to-one or one-tomany as a part of group uses. This study is trying to survey Jordanian Universities' students to gain a full picture about time and group uses among them, which can open the doors for Academics and Policy Makers to take advantages of the most common SNSs among the students of Jordanian universities as youths of the Arab world.

On the contrary Valenzuela, Park, and Kee (2008) they found that Social sites Networks; precisely Facebook; effect college students. They found positive relationships between intensity of Facebook use and students' life satisfaction, social trust, civic participants and political engagement.

With regard to intensity, Ellison, Steinfield and Lampe (2007) investigated the benefits of Facebook "Friends:" social capital and college students' use of online SNSs; they examined the relationship between use of Facebook and the formation and maintenance of social capital. The study surveyed 286 undergraduate students, the foundlings of their study showed a strong

Author a : Department of Curriculum and Teaching, Al-Hussein Bin Talal University, Jordan. E-mail : jwaifell@yahoo.com

Author σ : Faculty of Engineering, Al-Hussein Bin Talal University, Jordan. E-mail : hmfnam@yahoo.com

Author p: Computer engineering department, Faculty of Engineering and Technology, University of Jordan, Jordan. E-mail: sweidan@ju.edu.jo

Author ω : Computer Science Department, Princess Sumaya University for Technology, Jordan. E-mail : awajan@psut.edu.jo

Author ¥ : Faculty of Information Technology, AI Balqa Applied University, Jordan. E-mail : adnan_alrabea@yahoo.com

association between use of Facebook and the three types of social capital, with the strongest relationship being to bridging social capital.

SNSs are playing a great roll in the lives of university students as Leng, Likoh, Japang, Andrias, and Amoala (2010) pointed out. They reach this point of view through a descriptive study conducted to investigate SNS usage among university students in Labuan. The study concluded that the mass adoption of SNS points to evolution in human social interaction regardless age, culture background, occupations and general demographic profile includes university students. Thus it was obvious to them that university students will eventually use the SNS as a main medium of communication to maintain their relationships with friends and family members as well as expanding their niche community.

It is obvious that SNSs became as a demand of interaction between academics and their students whereas SNS are part of university student daily life all over the world. Ahmad (2011) studied the SNSs' usage and students' attitudes towards social behaviors and academic adjustment in Northern Nigerian Universities, the finding revealed that there were differences existed among ethnicity and religion in the extent of SNS usage, while there is a positive inter-relationships among the SNSs usages, students' social behavior and students' academic adjustment, beside the considerations of attitudes that can be a strong predictor and moderator of the relationship between SNSs and both the students' social behavior and students' academic adjustment. The use of SNSs still needed in the Arab world academically, while we encountered a huge number of users in a social usage behind the academic.

III. PROBLEM STATEMENT OF THE STUDY

Educators and policy makers can make use of SNSs and start to realize to reflect the intensity of using SNSs into their teaching and learning situation, the developing new acceptable technologies and innovations that students primarily involved in, while the traditional methodologies are the major approach that those educators are using. This study aimed at investigating the intensity of SNSs use among the students of Jordanian universities which can give motivational indicator to educators and policy makers to adopt those technologies.

IV. QUESTIONS OF THE STUDY

To explore intensity of SNSs group use among the students of Jordanian Universities, the research questions were:

Q1: what are the most popular SNSs Sites among the students of Jordanian Universities?

Q2: are there any differences between students' friends at SNSs related to university?

Q3: what is the intensity of SNSs use among the students of Jordanian Universities?

Q4: what is the intensity of SNSs group use among the students of Jordanian Universities related to some variables?

Q5: what are the natures of participation in the online SNSs groups among the students of Jordanian Universities?

V. METHOD AND MEASURES

The study conducted as a part of a project of investigating the SNSs uses among students of Jordanian Universities, while the items of the questionnaire is part of the project conducted by the authors.

To answer the research questions, the researchers set a questionnaire consisted of 9 questions related to the study variables, while some of the questionnaire items derived out of Ellison, Steifield, and Lampe (2007) study. The questionnaire distributed to four universities with intensity of SNSs group use among the students of Jordanian Universities. Data collected and analyzed in a descriptive quantitative research.

VI. SAMPLE OF THE STUDY

The sample of the study consisted of (727) out of (36350) students resembling (2%) of each university drawn randomly out of (4) Jordanian universities, resembling the study variables: 1) university, 2) faculty, 3) gender, and 4) year level, as shown below:

V	ariables	Frequency	Percent
University	University of	280	38.5
	Jordan		
	Hussein	155	21.3
	Balqa	135	18.6
	Sumaya	157	21.6
	Total	727	100
Faculty	Science	531	73
	Arts	196	27
	Total	727	100
Gender	Male	319	43.9
	Female	408	56.1
	Total	727	100
Level	First Year	163	22.4
	Second Year	154	21.2
	Third Year	177	24.3
	Fourth Year	233	32.0
	Total	727	100

Table 1 : Brake down of sample

VII. LIMITATIONS OF THE STUDY

The study results and findings are limited to the sample of the study and tools are used.

VIII. Results

a) Social Networks Sites popularity

Students were asked to define the SNSs that they are participated in, out of 20 SNSs, the most popular SNSs Sites among the students of Jordanian

Universities determined with a percentage above 10% of all the participants who indicated they use those sites as shown in Table 2:

						SN	Ss			
University	District	strict Sample	ole FaceBook		Twitter		Yahoo!Buzz		WLP	
			Count	%	Count	%	Count	%	Count	%
Jordan	Capital	280	258	92.1	131	46.8	128	45.7	93	33.2
Hussein	South	155	134	86.5	48	31.0	57	36.8	16	10.3
Balqa	Middle	135	109	80.7	52	38.5	82	60.7	21	15.6
Sumaya	Capital	157	146	93.0	71	45.2	31	19.7	47	29.9
Tota	al	727	647	89	302	41.5	298	41.5	177	24.3

* Windows live Profile (WLP)

It can be concluded out of the table, that Face Book, Twitter, and WLP had the highest percentage according to capital districted, while the middle district had the highest percentage of using Yahoo! Buzz among all universities. The nature of middle district population is between the civil urban and countryside, this nature of using small words to express feeling, attitudes, approval or disapproval, which was translated into Arabic by the word "Taghreedat" as a Buzz.

b) Social Networks Sites social usage

Students were asked to define how many SNSs friends they had. The means of friends in each university, faculty, gender, and year level were taken to examine the differences between students' friends at SNSs related to university. Table 3 presenting total means:

۱ ۱	/ariables	Mean	Total
University	University of Jordan	405.3	113476
	Hussein	227.9	35328
University	Balqa	154.2	20818
	Sumaya	369.8	58055
	Total	313.2	227677
Fooulty	Science	366.4	194573
Faculty	Arts	168.9	33104
	Total	313.2	227677
Condor	Male	330.2	105328
Gender	Female	229.9	122349
	Total	313.2	227677
	First Year	318.8	51957
Level	Second Year	232.6	35818
Level	Third Year	438.6	77635
	Fourth Year	267.2	62267
	Total	313.2	227677

Table 3 : Students' Friends at SNSs

ANOVA used to define the differences between friends amount among the students of Jordanian Universities according to university and year level. Table 4 shows the ANOVA summary:

				1010 011 0	
Source	Sum of Squares	df	Mean Square	F	Sig
Between Universities	7415966	3	2471988.77	1.325	.265
Within Universities	1.3E+009	723	1865219.748		
Total	1.4E+009	726			
Between Year Level	4282074	3	1327358.053	.763	.515
Within Year Level	1.4E+009	723	1869554.315		
Total	1.4E+009				

Table 4 ; ANOVA summary of students' friends at SNSs

ANCOVA revealed no significant differences at $\alpha \leq 0.05$ between students' friends amount at SNSs according to university and year level.

Independent Sample T-test used to define the differences between friends amount among the students of Jordanian Universities according to faculty and gender. T-test revealed no significant differences $\alpha \le 0.05$ between friends amount for both faculty and gender (Faculty, T=1.732, Sig=.084. Gender, T=.297, Sig=.767).

c) Social Networks Sites intensity use

Students were asked to define on a typical day, about how much time do they spend on SNSs at the scale of: No time at all, Less than 1 hr, More than 1 hr up to 2 hrs, and more than 2 hrs. Table 5 presenting their responses:

	Variables	No time at all	Less than 1 hr	More than 1 hr up to 2 hrs	more than 2 hrs
	University of Jordan	8	82	88	102
Liniversity	Hussein	13	57	50	35
University	Balqa	17	43	42	33
	Sumaya	8	44	50	55
Total	•	66	226	230	225
Feerla	Science	24	163	171	173
Faculty	Arts	22	63	59	52
Total		46	226	230	225
Canadar	Male	22	113	86	98
Gender	Female	24	113	144	127
Total		46	226	230	225
	First Year	14	50	53	46
	Second Year	10	45	55	44
Level	Third Year	8	49	60	60
	Fourth Year	14	82	62	75
Total		46	226	230	225

Table 5 : Res	pondents	actual	use c	of SNSs.	N=727
100010 0 11100	0 0110.01100	0.0.000	0.000		

Chi square calculated to determine the count distribution among the students' responses according to scale and study variables. Table 6 summarized Chi square results:

Table 6 : Chi square summary of students' SNSs intensity use

Variables	Chi	df	EC	Sig
University	26.48	9	8.54	.002
Faculty	12.16	3	12.40	.007
Gender	7.67	3	20.18	.053
Year Level	8.66	9	9.74	.469

Chi-Square revealed no significant differences at $\alpha \leq 0.05$ among students' SNSs intensity of use according to both gender and year level, while there are significant differences according to university and faculty.

d) Social Networks Sites intensity of group use

Students were asked to define on a typical day,
about how much time they spend reading and posting on the groups' walls at the SNSs they have joined at a scale of: No time at all, Less than 1 hr, More than 1 hr up to 2 hrs, and more than 2 hrs. Table 7 presenting
their responses:

* EC: Expected Count

	Variables	No time at all	Less than 1 hr	More than 1 hr up to 2 hrs	more than 2 hrs
	University of Jordan	10	138	129	3
University	Hussein	19	80	43	13
University	Balqa	20	59	51	5
	Sumaya	12	81	62	2
Total		61	358	285	23
Feaulty	Science	36	271	206	18
Faculty	Arts	25	87	79	5
Total		61	358	285	23
Gender	Male	29	160	115	15
Gender	Female	32	198	170	8
Total		61	358	285	23
	First Year	21	76	59	7
	Second Year	9	87	58	0
Level	Third Year	14	81	75	7
	Fourth Year	17	114	93	9
Total		61	358	285	23

Table 7: Respondents actual groups' use of SNSs. N=727

Chi square calculated to determine whether the differences in frequency count among the students' responses were statistically significant. Table 8 summarized Chi square results:

Table 8 : Chi square summary of students' SNSs intensity group use

Variables	Chi	df	EC	Sig	
University	46.227	9	4.27	.000	
Faculty	7.779	3	6.2	.051	
Gender	6.122	3	10.09	.106	
Year Level	14.997	9	4.87	.091	

* EC: Expected Count

Chi-Square revealed no significant differences at $\alpha \leq 0.05$ among students' SNSs intensity group use according to faculty, gender, and year level, while there are significant differences according to university.

e) Nature of Students' participations in the online SNSs groups

Students were asked to define the nature of their participations in the online SNSs groups. This question consisted of the following sub questions:

- 1) In the past week, how many did you: read profiles on the online groups you have joined on the SNSs?
- 2) In the past week, how many did you: send messages on the groups' walls you have joined?
- In the past week, how many did you: read or write a 3) new topics on the groups' walls you have joined?
- 4) Which one of the followings best describe your participation in the online groups you have joined on SNSs?:
 - 1. Rarely visit profiles
 - 2. Reads wall/ discussion board
 - 3. Mostly reads, sometimes write on wall/ discussion board
 - 4. Reads and writes on wall/ discussion boards
 - 5. Reads, writes and starts new topics on wall/ discussion board.

The participants' responses for questions 1 to 3 were calculated in means as shown in table 9:

Va	riables	Reading profiles	Sending messages	R/W New topics
	University of Jordan	7.7	15.3	1.8
University	Hussein	9.9	12.3	4.3
	Balqa	7.9	6.8	3.1
	Sumaya	6.9	5.7	2.2
-	Total	8.0	11.0	2.6
Faculty	Science	7.4	8.0	2.5
racuity	Arts	9.7	19.1	3.1
-	Total	8.0	11.0	2.6
Gender	Male	8.2	11.6	3.1
Gender	Female	7.9	10.6	2.3
-	Total	8.0	11.0	2.6
	First Year	9.9	10.2	3.2
Level	Second Year	8.1	9.1	2.6
Level	Third Year	8.0	9.8	2.7
	Fourth Year	6.7	13.8	2.2
-	Total	8.0	11.0	2.6

Table 9 : Nature of Students' participation at SNSs

ANOVA used to define the differences between students' participations according to university and year level. Table 10 shows the ANOVA summary:

	Source	Sum of Squares	df	Mean Square	F	Sig
	Between Universities	809.179	3	269.726	.709	.547
Reading profiles	Within Universities	274861.0	723	380.167		
	Total	275670.1	726			
	Between Universities	12108.809	3	4036.270	1.035	.376
Sending messages	Within Universities	2818574	723	3898.442		
0 0	Total	2830683	726			
	Between Universities	703.756	3	234.756	5.063	002
R/W New topics	Within Universities	33496.684	723	46.330		
	Total	34200.440	726			
	Between Year Level	979.027	3	326.342	.859	.462
Reading profiles	Within Year Level	274691.1	723	379.932		
	Total	275670.1	726			
	Between Year Level	2640.835	3	913.612	.234	.873
Sending messages	Within Year Level	2827942	723	3911.400		
0 0	Total	2830683	726			
	Between Year Level	95.359	3	31.876	.674	.568
R/W New topics	Within Year Level	34105.082	723	47.172		
· 1	Total	34200.440	726			

Table 10 : ANOVA summary of students' participations at SNSs

ANCOVA revealed no significant differences at $\alpha \leq 0.05$ between students' participations at SNSs according to university and year level except reading, writing and starting new topics according to university. Post Hoc Tests (Scheffe, 1959) revealed that only significant difference exist between University of Jordan

and Al-Hussein University for the benefit of Al-Hussein University as shown in Table 11.

	Al- Hussein	Balqa	Sumaya
University of Jordan	2.51959 *	1.38386	0.46132
α	.004	.289	.950
Al- Hussein	-	1.13572	2.11827
α	-	.671	.057
Balqa	-	-	0.98254
α	-	-	.680

Independent Sample T-test used to define the differences between students' participations according to faculty and gender. Table 12 shows the T-test summary:

Table 12 : T-test summary of students' participations

Variable	Participation	t	df	Sig
Faculty	Reading profiles	1.413		.158
	Sending messages	2.137		.033
	R/W New topics	1.054	725	.292
Gender	Reading profiles	0.146	725	.889
	Sending messages	0,222		.825
	R/W New topics	1.452		.147

Results of t-test revealed no significant differences between students' participations at $\alpha \le 0.05$

except sending messages according to faculty, where students of Faculties of Arts mean (19.1) is more than sciences faculties (8.0). This result revealed how much the students of sciences are engaged in studying more than using SNSs to communicate with groups by sending messages.

Overall, to gain a precise picture about students' participations, they have been asked to answer the question: which one of the followings best describe your participation in the online groups you have joined on SNSs?:

- 1. Rarely Visit Profiles (RVP)
- 2. Reads Wall/ Discussion Board (RWDB)
- 3. Mostly Reads, Sometimes Write on wall/ discussion board (MRS)
- 4. Reads and Writes on Wall/ Discussion Boards (RWWDB)
- 5. Reads, writes and starts new topics on wall/ discussion board (Topics)

The following Table, showing students' responses:

Table 13: Respondents actual groups' participations of SNSs. N=727

Variables		RVP	RWDB	MRS	RWWDB	Topics
University	University of Jordan	39	99	27	54	61
	Hussein	42	41	34	20	18
	Balqa	33	42	00	20	40
	Sumaya	28	60	2	25	42
Total		142	242	63	119	161
	Science	94	186	43	95	113
Faculty	Arts	48	56	20	24	48
Total		142	242	63	119	161
Gender	Male	77	104	22	50	66
	Female	65	138	41	69	95
Total		142	242	63	119	161
Level	First Year	42	49	18	21	33
	Second Year	27	52	13	21	41
	Third Year	29	64	14	31	39
	Fourth Year	44	77	18	46	48
Total		142	242	63	119	161

Chi square calculated to determine the count distribution among the students' responses according to scale and study variables. Table 14 summarized Chi square results:

Table 14 : Chi square summary, of students'
participations at SNSs

Variables	Chi	df	EC	Sig	
University	83.728	12	11.70	.000	
Faculty	9.356	4	16.98	.053	
Gender	9.018	4	27.64	.061	
Year Level	12.482	12	13.35	.408	

* EC: Expected Count

Chi-Square revealed no significant differences at $\alpha{\leq}0.05$ among students' participations at SNSs

2013

Year

6

Version

© 2013 Global Journals Inc. (US)

according to faculty, gender, and year level, while there are significant differences according to university, where Balqa University had no any participation in: Mostly Reads, Sometimes Write on wall/ discussion board.

IX. DISCUSSION

The finding of how many friends that students gain on SNSs, reflected the social usage concerning relationships among youths in Jordanian Universities, which does not affected by the nature of universities as a community. This finding can lead all the Academics and Policy Makers to a fact that Students of Jordanian Universities are in the same cultural manner according to seeking friends to establish a SNSs community, so they can use this fact to take advantages of SNSs in universities community as a tool of interaction between the educators and their students. While the results of friends amount according to students ethnographic variables also can be considered as indicators of judging the harmony among students of Jordanian Universities according to social relationships.

The SNSs intensity of use according to both gender and year level can be related to the shortage of personal computers in both Al-Hussein and Balqa universities, while both of the University of Jordan and Sumaya University are in the capital district are having more intensity than other universities. The Jordan and Sumaya universities' reputation of hard work students made them less users of SNSs, and what can confirm this is the highest achievements of those students if they want to be accepted to study in those universities.

There is a great participations in equal manner among Jordanian students, while University of Jordan (1963) considered as the most favorable university beside its' rank (1) among Jordanian universities, so when you compare it with a southern district university that considered as a new one (1999) and far of the capital city Amman in about 220Km, this distance and desert environment are made it unfavorable to students, this can lead to a gap between districts, so students try to read more than writing or starting new topics in order to "see what goes around", It appears that students of Jordanian Universities have great groups participations at SNSs.

X. CONCLUSION

The study revealed how students of Jordanian Universities use SNSs. These findings have implications for efforts to use SNSs an academic tool for communication and interacting with/between educators and students alike. The results from this descriptive study help to clarify the role of SNSs in the lives of university students according to universities districts, faculties, gender, and year level. The students interact with each other individually and by groups, where most of the students are engaged in SNSs group walls and discussions. Academics and policy makers can take advantages of SNSs and integrating them into learning management systems.

References Références Referencias

- Ahmad, Suleiman Alhaji. (2011). Social networking sites' usage and students' attitudes towards social behaviors and academic adjustment in Northern Nigerian Universities. Unpublished thesis, UUM College and Sciences. University Utara Malaysia.
- Boyed, Dana and Ellison, Nicole. (2007, October).
 "Social Network Sites: Definition, History, and Scholarship." *Journal of Computer-Mediated Communication*, 13 (1). Available at:
- 3. http://www.danah.org/papers/JCMCIntro.pdf

- Ellison, Nicole B., Steinfield, Charles., and Lampe, Cliff. (2007). The benefits of Facebook "Friends:" social capital and college students' use of online social network sites. Journal of Computer-Mediated Communication 12 (2007) 1143-1168 International Communication Association. Available at:
- 5. http://jcmc.indiana.edu/vol12/issue4/ellison.html
- Hewitt, Anne and Forte, Andera. (2006). Crossing boundaries: Identity management and student/faculty relationships on the Facebook. CSCW'06, November 4-8, Banff, Alberta, Canada. Available at: http://citeseerx.ist.edu/viewdoc/ download?doi=10.1.1.94.8152&rep1&type=pdf
- Kwon, Ohbyung and Wen Yixing. (2009). An empirical study of the factors affecting social network service use. Computer in Human Behaviour, 26 (2010) 254-263. Available at: http://research.ecstu.com/km/efile/fb/factor_net_ser vice.pdf
- Leng, Goh Say., Likoh, Jonathan., Japang, Minah., Andrias, Ryan Macdonell., and Amboala, Tamrin. (2010). Descriptive study of SNS usage among university students in Labuan, Labuan e-Journal of Muamalat and Society, Vol. 4, 2010, pp. 54-64. Available at: http://wwwkal.ums.edu.my/ljms/2010/ LJMS_vol4_2010_67-77[7].pdf
- Pempek, Tiffany A., Yermolayeva, Yevdokiya A., and Clavert, Sandra L. (2009). College students' social networking experiences on Facebook. Journal of Applied Developmental Psychology, 30 (2009) 227-238. Available at: http://elkhealth.pbworks.com /f/College+Students'+Social+Networking+on+Fac ebook.pdf
- Valenzuela, Sebastian., Park, Namsu., and Kee, Kerk F. (2008). Lessons from Facebook: The effect of social network sites on college students' social capital. Submited to the 9th International Symposium on Online Journalism. Austin, Texas, April 4-5, 2008. Available at:
- 11. http://online.journalism.utexas.edu/2008/papers/Val enzuela.pdf

This page is intentionally left blank