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The Role of Intensity of Facebook Usage in Social Capital Development: An Example with Arab Students

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Abstract

This study extends prior literature on social networking sites, e.g., Facebook, to an under researched context, Arab countries. In particular, this research compares the Arab and non-Arab youth in the UAE in terms of motivations, intensity of Facebook usage and their social capital development. With a survey study involving 123 students in the UAE, the results suggest that the need for socialization is a driving force for intensity of Facebook usage among the youth in the UAE, implying that the driving forces of Facebook usage are regional specific. Moreover, intensity of Facebook usage contributes more to bonding social capital rather than bridging social capital. Significant gender and ethnic differences are reported in intensity of Facebook usage and resulting bonding social capital.

Keywords

Youth, Social Networking Sites, Social Capital, Facebook Usage, Arab Countries

INTRODUCTION

Social network sites (SNS) constitute an important research area for scholars interested in examining the social impact of online technologies on the youth of today (Khedo et al., 2013, Brandtzaeg, 2012, Pempek et al., 2009, Valkenburg et al., 2006). Social networking sites such as, Facebook, MySpace and Bebo are member-based communities that allow users to post profile information and to communicate with others in innovative ways such as sending public and private online messages and sharing photos online. In 2008, Facebook reported having 67 million active users, with more than half of them returning daily and spending an average of 20 minutes per day on the site (Park et al., 2009).

Pempek et al (2009) found that Facebook, in particular, provides new avenues for young adults to express themselves and to interact with one another. Among young adults, relationships with peers are important for generating offline benefits, commonly referred to as social capital. Social capital is a construct used to describe the benefits one receives from one's relationships with other people (Lin, 1999). Ellison et al (2007) suggest that intense Facebook use is closely related to the formation and maintenance of social capital. In their survey of undergraduates at a university, Facebook use was found to be associated with a distinct measure of social capital, including bridging social capital and bonding social capital.

The popularity of social networking sites is a global phenomenon, but the research on this phenomenon has centered in developed countries. Among Arab countries, youth are the fastest growing segment of populations. With a median age of 22 compared to a global average age of 28, the Middle East is one of the most youthful regions in the world (UNDP, 2009). Recently, with the "Arab Spring" (Aday et al., 2013), SNS usage, and its implications in the Arab world, has started attracting international research interest (AlSayyad and Guvenc, 2013, Aday et al., 2013, Axford, 2011). However, most research has centered on the media consumption and communications for political reasons (Tufekci and Wilson, 2012, Aday et al., 2013). The area of social media use for social capital purposes by the youth of the Arab World is under-researched.

By examining the young adults' use of social networking sites and social capital development in Arab countries, the present study contributes to prior work in three key areas. It not only reexamines and confirms existing research on the relationship between intensity of Facebook usage and social capital (Valenzuela et al., 2009c) in a new context but also demonstrates the relative contribution of Facebook usage on different types of social capital development among young adults in Arab countries. Secondly, it extends existing research by elaborating on the main driving forces for Facebook usage (Park et al., 2009) that are specific for the young adults in Arab countries. And finally it reveals

interesting gender and ethnic differences/similarities in motivations, intensity of Facebook usage and resulting social capital development, which to a great extent are counter intuitive. For example, Valenzuela et al (2009c) found ethnic differences in the relationship between intensity of Facebook usage and social capital building between white and non-white users. This research endeavors to extend this line of research to the Arab context and compare the difference between Arab vs. non-Arab users.

In the following sections, we will review the prior literature and develop hypotheses. This is followed by a description of the empirical study. Next, we report and discuss the results. The paper is concluded by a discussion about implications, limitations and future research.

THEORETICAL DEVELOPMENT AND HYPOTHESES

This section reviews existing literature in this area and outlines the motivation for hypothesis development. These hypotheses seek to confirm, extend and challenge existing notions about Facebook use by Young people in Arab countries. Facebook has a number of features that allow individuals to communicate with others. This particular site for example, allows users to construct an identity for themselves through the information they post about themselves in terms of pictures, videos and other media for their friends to view and comment on. Research is needed to examine these friend-networking sites for numerous reasons. One of the main reasons is to understand the personal and social motivations that youth have for their intense use of Facebook. Intensity of Facebook usage in this research describes the extent to which that a user considers Facebook as a part of his/her life and implies the psychological engagement in Facebook interactions.

The uses and gratifications approach (Katz and Blumler, 1974, Ruggiero, 2000) provides a useful framework for drawing these inferences. This approach is a useful framework from which to understand Internet usage and user's needs. The uses and gratifications theory is concerned with how individuals use the media (in this case, Facebook), and therefore it emphasizes the importance of the individual. This theory is particularly useful as it draws a distinction between concepts that are antecedents to behavior (e.g., uses and gratifications sought) and those that are consequents of behavior (e.g., gratifications obtained) (Bonds-Raacke, 2008).

Numerous studies have been done that support the notion that Facebook is used primarily for social connections (Pempek et al., 2009, Sheldon, 2008). For example, Sheldon (2008) reported that students used Facebook to maintain relationships with people they already knew and only a small number of students used Facebook to meet new people. In addition, a survey of over 2,000 students by Lampe et al (2006), found evidence that the primary use of Facebook was for 'social searching' – that is to use Facebook to find out more information about someone they met offline, in class, a social setting or an acquaintance. The use of Facebook for 'social browsing', for instance, to meet someone via the site with the intention of a later offline meeting, or to attend an event organized online, scored relatively low amongst their sample.

Moreover, Facebook can fulfill the informational needs of users, young users are facing the period of adolescence in a digital environment, this is typically a period of their lives are dominated by many questions, questions about oneself and questions about changing relationships with the outside world. In this phase of life there is a struggle for independence from parents and an increased reliance on peers for support (Buhrmester and Furman 1987; Larson and Richards 1991). However, there are some areas of a young person's life that they may not feel comfortable sharing with even their closest friends. For these reasons the Internet in general has become an example of an important informational source that has become increasingly popular among young users (Tapscott 1997; Prensky 2001), it would be interesting to explore Facebook as an information resource for youth, given its ubiquity in this age group. In order to keep users updated about their social circles, Facebook has two features: "News Feed", which appears on each user's homepage, and "Mini-Feed", which appears in each individual's profile. "News Feed" updates a personalized list of news stories throughout the day generated by the activity of friends' (Valenzuela et al., 2009a). Thus, each time users log in, they get the latest updates about their contacts. "Mini-Feed" is similar, except that it centers around one individual. Thus, Facebook use can reinforce existing ties and communities by keeping users constantly updated about what is going on with their contacts (Hargittai, 2007). On the other hand, Facebook allows users to create and to join groups based around common interests and activities by incorporating their profiles into the Facebook Groups application. The Groups application displays each individual's group memberships as well as groups their friends have joined.

Users can log in to Facebook to satisfy needs of pure entertainment and recreation, for example a popular application for Facebook is "FunWall," which allows users to post a much broader range of content than the traditional "The Wall," such as games, videos, and music. Posting links to YouTube on the FunWall or spending time creating Facebook Groups can foster a sense of customization and enjoyment but drive attention away from the real world (Valenzuela et al., 2009a). As Shah and colleagues (2001) have argued, "in such cases, recreation and socializing may become privatized

while the illusion of social interaction is maintained” (Shah, 2001). To this end, we propose the three following hypotheses that can test these assumptions and assertions.

H1: Intensity of Facebook usage is driven by the need for socializing

H2: Intensity of Facebook usage is driven by the need for information search H3: Intensity of Facebook usage is driven by the need for entertainment

Social capital particularly in the context of social networking sites like Facebook is about the resources available to people through their social interactions (Lin and Lu, 2000, Putnam, 2001). Generally it is perceived that people derive many benefits of a diverse range of social interaction, indicating that the more interaction a person has the more they benefit. Although people often accumulate social capital as a result of their daily interactions with friends, coworkers, and strangers, it is also possible to make conscious investments in social interaction (Resnick et al., 1993). Many researchers have alluded to the fact that this is the main reason that users join sites like Facebook; is to maintain and increase their social networks (Ellison et al., 2007, Joinson, 2008, Ellison et al., 2011).

The types of interactions have also become increasingly important, which is to say that it is not necessarily the technology but the way the technology is used that is important. There seems to be a general bias that social interactions based around informational needs and community building are positively associated with individual-level production of social capital, while use of social media for purely entertainment purposes are negatively associated with social capital (Wellman et al., 2001, Ellison et al., 2011). This explains why online activities have been found to both reduce and increase social capital.

Social capital has broadly been described as two constructs - bridging and bonding social capital. Bridging capital occurs between individuals who are weakly tied together, this type of capital provides access to novel information or new perspectives but not typically emotional support (Putnam, 2001). Alternatively, bonding social capital is found between individuals in tightly-knit, emotionally close relationships, such as family and close friends. The Internet has been linked both to increases and decreases in social capital (Nie et al., 2002, Wellman et al., 2001). As mentioned before bridging social capital could be enhanced by sites that support loose social ties which allow members to create large diverse networks, while bonding capital could be enhanced by sites that allow more meaningful exchanges to occur (Boyd and Ellison, 2008, Ellison et al., 2011). Facebook in our view could usefully support both bridging and bonding capital. Therefore we examine the following hypotheses:

H4: Intensity of Facebook usage has positive impact on bridging social capital

H5: Intensity of Facebook usage has positive impact on bonding social capital

With the rise of popular SNS like Facebook, comes a vital new area of research examining the relationship between gender and online communication. Social networking sites are one particular avenue for self-expression that is popular among young adults (Hargittai, 2010). Therefore, the ways in which individuals communicate and interact through social networking sites are inevitably a reflection of their identity, including gender.

Cooper (2006) found that males were more comfortable with the use of technologies than their female counterparts, Lin and Overbaugh (2009) and Caspi, Chajut et al. (2008) assert that females are more prolific, productive and effective in online environments. Interestingly, Johnson (2011) concluded that in the short term females might be in a better position to benefit from the Internet due to their cognitive orientation to ubiquitous spaces, while in the long term males will begin to use the Internet more for communication purposes and thereby enhance their developmental outcomes as well. Research that has been conducted in this area supports this assumption that some Face to Face gender norms are replicated in online communication. For instance, Valkenburg, Schouten, and Peter (2005) concluded that both males and females often use gender stereotyping in their presentation of self online. Because of this, there have been well-established findings that suggest that female online behaviour is more interpersonally oriented, while males are more task and information oriented (Haferkamp et al., 2012, Muniz and O'Guinn, 2001). Such findings suggest that motivation to use Facebook may vary between males and females.

Moreover, Agarwal (2000) found that within social networks, females form stronger kinship and friendship relations than males. Therefore, social capital theory would expect that although males may accumulate more friends to widen their network and improve their “status,” the average time spent on Facebook per friend would be higher for females because

of their tendency to establish closer bonds with in a smaller group.

H6: There is a gender difference in motivations, intensity of Facebook usage and social capital development

While there has been a recent interest in the use of various social media platforms in the Arab world for political purposes (Ghannam, 2011, Harb, 2011) the area of social media use for social capital purposes by the youth of the Arab World is under-researched. The Arab world has always been an early adopter of “mass media” technology. Egypt, in particular, is perceived as a leader in the adoption of technology and also as the country with the largest number of Internet users in the Arab world (Abdulla, 2007). The UAE continues to lead the Arab world in adoption of information and communication technology, according to a World Economic Forum report, and is expected to spend about \$3.3 billion on information technology and communications hardware for schools, hospitals and other civil projects between 2008 and 2011. According to the Internet Telecommunication Union, Internet penetration in the UAE has increased from 36 percent in 2006 to an estimated 64 percent in 2008 (Initiative, 2009). UAE has approximately 5.8 million Internet users and just over 3.4 million Facebook users (Statistics, 2012).

Although the youth have more access to the Internet than their older counterparts, Internet access for youth in the region is still quite low in comparative perspective (WorldBank, 2010). Moreover, a recent UNICEF report found that the youth (18-24) tend to identify closely with traditional, religious, and familial ties. For example, the youth in Jordan still identify strongly with the army and the police over independent media, while the Lebanese youth demonstrate tight sectarian attachments.

Given the lack of research done for this important cohort, our research will focus on the intensity of Facebook usage for social capital development between Arab and non-Arab youth. It would be interesting to explore whether or not the online uses of the Internet by these two cohorts reflect the offline differences in their cultures.

H7: There is difference in motivations, intensity of Facebook usage and social capital development between Arab and non-Arab youth

RESEARCH METHOD

We conducted a survey in the UAE to examine the following above mentioned hypotheses, i.e. motivations in using Facebook, intensity of using Facebook, and resulting social capital. According to the UAE National Bureau of Statistics, UAE has about 88% expatriates coming from more than 200 countries. Given the small amount of UAE nationals in the total population, expatriates are less likely influenced by the nationals but rather keep their distinctive characteristics. Thus, UAE offers a good opportunity to understand the diversity among Facebook users. The survey was distributed in two rounds involving undergraduate students from two universities. The first round was conducted in a private university where the majority of students were from an international background, from more than 50 nationalities. With limited respondents from Arab countries, we had the second round of data collection in a national university. Participation was voluntary and without any motivation. In total, we collected 123 valid responses with 57 participants from Arab countries and 65 participants from non-Arab countries. Table 1 summarizes the demographic information of the participants. About 90% of respondents were adolescents or emerging adults, that is, below 30 years old, according to Erikson’s Stages of Psychosocial Development¹. This is consistent with the other statistics about the social media users². On average, respondents reported 363 “friends” on Facebook with a great standard deviation of 447. In this research, we use Arab countries to refer to 22 [Arabic-speaking](#) countries of the [Arab League](#)³. Particularly, respondents from Arab countries had significant fewer “friends” (Mean=164) than those from non-Arab countries (Mean=538), although both groups had similar Facebook membership duration.

Table 1: Demographic Information

Age	Count (%)	Origin of Respondents	Count (%)
13-20	25.3	Arab countries	46.3
21-30	65	Non-Arab countries	53.7
>30	9.7	Gender	Count (%)

Frequency of Login	Count (%)	Female	61
More than once daily	43.1	Male	39
Once daily	16.3	Membership with Facebook	Count (%)
Several times a week	17.1	More than one but under two	1.6
Once a week	4.1	Between two and six months	1.6
Less than weekly, but more than	8.1	Between six months and one year	4.1
Once a month	11.4	More than one year, less than two	14.6
		More than two years	78

Measures

All measures were adapted from prior literature. In particular, bonding social capital was measured by adapting the existing scales from (Ellison et al., 2007) to capture Internet-specific social capital (Greenhow and Burton, 2011, Steinfield et al., 2008a). A sample question was “There are several people on Facebook I trust to solve my problems” (1=strongly disagree; 7=strongly agree). Bridging social capital was measured with the scale adopted from (Brandtzaeg, 2012). A sample question was “My Facebook friends have a different cultural background or race from me” (1=strongly disagree; 7=strongly agree).

Various motivations of using Facebook were measured by the items developed by a previous scale (Vasaloua et al., 2010). A sample item was “I use Facebook to meet interesting people” (1=strongly disagree; 7=strongly agree). Facebook usage intensity was measured with the scale from (Steinfield et al., 2008b). A sample item was “Facebook is part of my everyday activity” (1=strongly disagree; 7=strongly agree).

Data Analysis

Measurement validation and model testing were done in a holistic manner using Partial Least Squares (PLS). An advantage of using PLS is that the resampling technique establishes confidence intervals based on repeated samples from the researcher's own data rather than on assumptions, such as multivariate normal distributions. Thus, the normality of the survey data will not influence the PLS results. Tests of significance were conducted for all paths using the bootstrap re-sampling procedure and the standard approach for evaluation that requires path loadings from construct to measures to exceed 0.70. Internal consistency of reflective measures was checked with composite reliability measures (ρ) and average variance extracted (AVE), as suggested by Fornell and Larcker (1987). The discriminant validity was examined by comparing the square root of the AVE for a particular construct to its correlations with the other constructs (Fornell and Larcker, 1987) and by examining cross-loadings of the constructs.

This study adopted a cross-sectional design and both independent and dependent variables were measured at the same time point, implying that the common method variance could be a major threat for the validity. The control for the common method variance was done first through instrument design by using different scales and randomizing the sequence of the questions, both of which have been shown to effectively reduce the common method variance. In addition, according to Harman's single-factor test (Podsakoff and Organ, 1986), common method variance is present if a single factor accounts for the majority of the covariance in the dependent and independent variables. The principle component analysis with all variables results in six distinct factors, and the first factor only accounted for 17.5% of the variance, implying no substantial common method bias in our survey data.

¹ http://en.wikipedia.org/wiki/Erikson%27s_stages_of_psychosocial_development ²
http://www.dsg.ae/en/Publication/Pdf_En/424201311017185100000.pdf

³ http://en.wikipedia.org/wiki/Arab_world

RESULTS AND DISCUSSION

Table 2 presents the loadings of the reflective measures to their respective constructs along with AVE value, composite reliability scores, and t-statistics from the PLS analysis. All reflective items are significant at the 99% level with high loadings (all except for two items above 0.70 and most above 0.80), thereby demonstrating convergent validity of all the latent constructs are higher than the recommended value of 0.80 (Nunnally, 1978), demonstrating internal consistency.

Table 2: Measurement Model

	Loading	T-Test		Loading	T-Test
Intensity of Facebook Usage (AVE=0.83).58;			Bonding Social Capital (AVE=0.88).65;		
Item 1	-0.72	9.77	Item 1	0.80	10.10
Item 2	0.88	35.44	Item 2	0.79	11.06
Item 3	0.64	7.92	Item 3	0.84	13.46
Item 4	0.91	43.60	Item 4	0.79	12.18
Item 5	0.87	29.06	Bridging Social Capital (AVE=0.88).6;		
Item 6	0.82	16.28	Item 1	0.71	3.20
Item 7	0.81	17.40	Item 2	0.78	3.71
Motivation- Entertainment (AVE=0.93).82;			Item 3	0.77	4.05
Item 1	0.92	40.81	Item 4	0.78	3.95
Item 2	0.92	33.22	Item 1	0.83	3.27
Item 3	0.88	20.76	Motivation-Socializing (AVE=0.84).58;		
Motivation-Information Seeking (AVE=0.92).8;			Item 1	0.72	8.89
Item 1	0.95	7.13	Item 2	0.65	4.58
Item 2	0.97	7.11	Item 3	0.83	12.98
Item 3	0.75	4.26	Item 4	0.83	17.03

Table 3 presents the discriminant validity statistics. The square roots of the AVE scores (diagonal elements of Table 3) are all higher than the correlations among the constructs, demonstrating discriminant validity. Furthermore, all items loaded higher on their respective constructs than on others, providing additional support for discriminant validity.

Table 3: Discriminant Validity

	1	2	3	4	5	6
Motivation-Entertainment (1)	0.91	0	0	0	0	0
Motivation-Information seeking (2)	0.39	0.89	0	0	0	0
Intensity of Facebook usage (3)	0.39	0.30	0.76	0	0	0
Bonding social capital (4)	0.17	0.20	0.34	0.81	0	0
Bridging social capital (5)	0.06	0.10	0.23	0.18	0.77	0
Motivation-Socializing (6)	0.60	0.48	0.42	0.19	-0.00	0.76

Figure 1 present the results of the PLS analysis of the structural model, including the overall explanatory

power (R²) and path coefficients (for relationships between latent variables). The research model provides good explanatory power for intensity of Facebook usage (20.9%). Among all three different needs, i.e., socialization (H1), information search (H2) and entertainment (H3), only the need for socialization was found to have a significant effect $\beta=0.244$; on $p<0.01$. It seems that the UAE students mainly use Facebook for socialization, rather than entertainment or searching for information.

As for the consequences of Facebook usage, our results showed that intensity of Facebook usage has a significant $\beta=0.349$; effect $p<0.01$ (and greater explanatory power on bonding social capital (12.1%) than bridging social capital (5.2%). The coefficient between intensity of Facebook usage and bridging social capital was significant $\beta=0.227$; but $p>0.05$). Thus, our results in general are consistent with prior research regarding the positive impact of Facebook usage on social capital development, supporting H4 and H5. However, the usage of Facebook for social capital development is not balanced between bonding and bridging social capital. In this research, we found that the UAE students mainly construct bonding social capital from using Facebook rather than bridging social capital. The difference in the relative importance of intensity of Facebook usage in social capital development reflects the underlying usage pattern of specific populations.

In this study, intensity of Facebook usage mediates the effect of various motivations on social capital development. Generally speaking, there are criteria used to informally judge whether mediation is occurring: (1) the independent variable has a significant effect on the mediator, (2) the independent variable also significantly affects the dependent variable in the absence of the mediator, (3) the mediator has a significant unique effect on the dependent variable, and (4) the effect of the independent variable on the dependent variable is reduced after the mediator is added to the model. Based on the above criteria, we only tested the potential mediating effect of intensity of Facebook usage on the linkage between need for socialization and bonding social capital development, since the direct effect of the need for socialization on bridging social capital was not significant. Following the procedure suggested by (Sobel, 1982) and (Baron and Kenny, 1986), it was found the effect of need for socialization on bonding social capital development is completely mediated through intensity of Facebook usage (Sobel test=2; $p<0.05$).

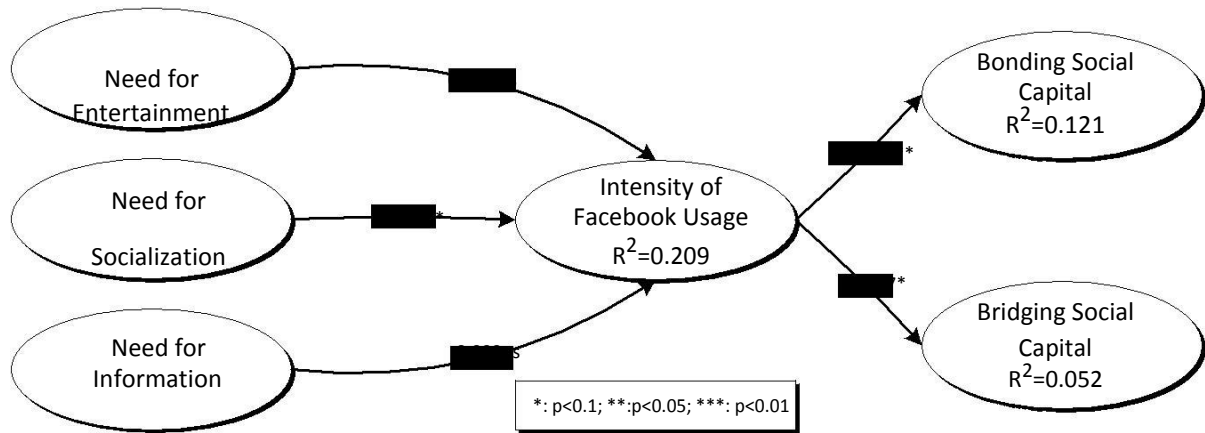
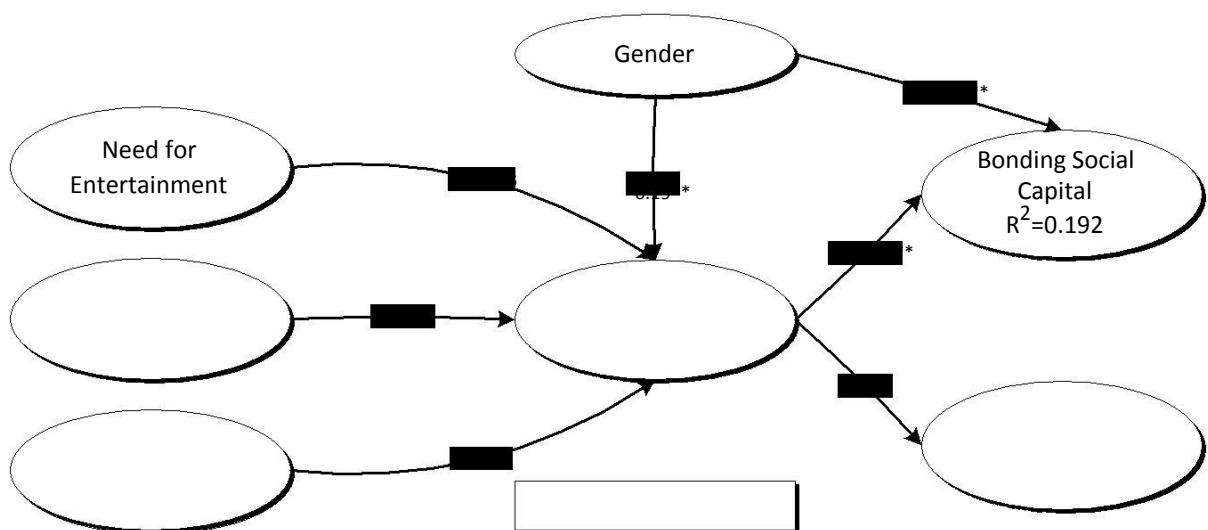


Figure 1: Base Model Results

To test H6 and H7, we first performed an independent t-test to examine the gender and nationality (Arab vs. non-Arab) differences. We did not find significant gender difference in all three motivations, which is different from prior research that suggests female users are more interpersonal oriented and male users are information oriented (Jackson et al., 2001). Although female users (Mean=2.89) tend to logon to Facebook more frequently than male users (Mean=1.94), female users do not feel strongly affiliated with Facebook or consider Facebook as a part of their daily life. On contrary, male users reported significantly more intensive Facebook usage (Mean=4.37; $p < 0.01$) and bonding social capital (Mean=4.39; $p < 0.01$) than female users (Mean for intensity of Facebook usage=3.76; Mean for bonding social capital=3.51). This result is quite different from existing findings that suggest females tend to form stronger kinship and friendship relations than males in social networking sites (e.g., Agrawal 2000), suggesting that gender difference is not universal.

One plausible explanation for male users having more intensity of Facebook usage and developing more bonding social capital is that males users may find Facebook interaction is more reciprocal than offline face-to-face interaction (Peter and Valkenburg, 2006) whereas female users in the UAE are more keen on face-to-face interaction. Finally, there was no significant gender difference in bridging social capital. Considering the prevalence of religious and traditional cultural influence in the UAE, this result is also counter-intuitive in that both male and female users developed social networks with a similar level of diversity. Particularly, female users enjoy the same openness as male users in connecting with different people. This finding suggests that cultural differences in gender are not reflected in an online environment. To further illustrate the gender impact, we also reported the structural model with gender differences (see Figure 2). The insignificant linkages are not included.



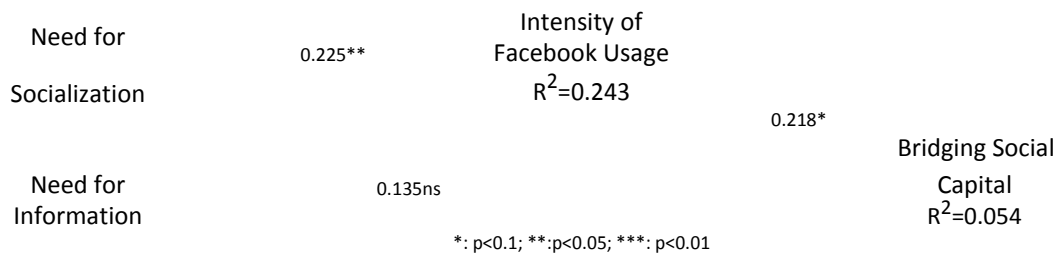
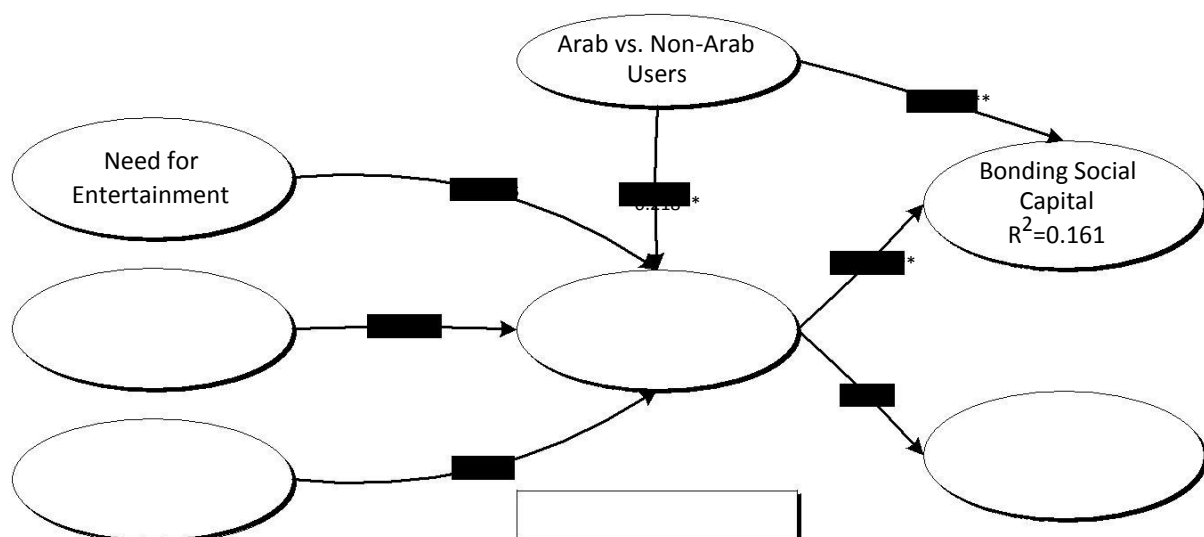


Figure 2: Structural Model Results and the Gender Differences

As for the difference between Arab and non-Arab users, similar results as gender differences were reported in that there was no significant difference between Arab and non-Arab users in motivations, suggesting the universal needs for using Facebook. But we found significant difference in intensity of Facebook usage and resulting bonding social capital in that non-Arab users reported less frequency in login Facebook (Mean=1.89; p<0.01) but stronger intensity of Facebook usage (Mean=4.37; p<0.01) than Arab users (Mean for login frequency=3.25; Mean for intensity of Facebook usage=3.57). This could be due to the fact that most non-Arab users in the UAE have been using Facebook for much longer time than Arab users in the UAE. Moreover, non-Arab users in the UAE are more likely to rely on Facebook to maintain their existing social networks than Arab ones. Subsequently, non-Arab users also reported higher level of bonding social capital (Mean=4.16; p<0.01) than Arab users (Mean=3.5) on Facebook. This may be related to non-Arab users' overall long history of using Facebook to keep their existing connections with whom they can trust and count on; while for Arab users, relatively speaking, they are more inclined to use face-to-face for close social connections. Finally, there was no significant difference between Arab and non-Arab users in bridging social capital, although both groups of users reported significantly higher level of bridging social capital (Mean=4.88) than bonding social capital (Mean=3.85). To further illustrate the impact of nationality, we also reported the structural model with nationality differences (see Figure 3). The insignificant linkages are not included.



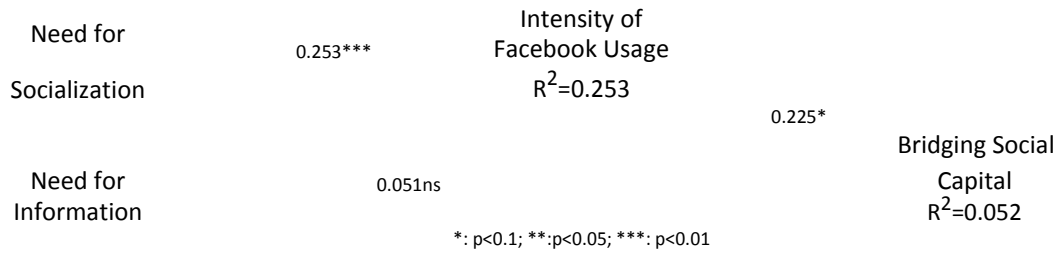


Figure 3: Structural Model Results and the Effect of Nationality

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

In this research, we examine Facebook usage for social capital development in the UAE by young adults, a context that was under studied in prior research on social media. Our results entail theoretical as well as practical implications.

First, the results confirm existing research on the relationship between intensity of Facebook usage and social capital (Valenzuela et al., 2009c) and extend existing research by demonstrating the relative contribution of intensity of Facebook usage on different types of social capital. Facebook not only helps young adults extend their social networks to incorporate diverse connections but also enables them to develop strong ties with selected connections. Intensity of Facebook usage in this research describes the extent to which that a user considers Facebook as a part of his/her life and implies the psychological engagement in Facebook interactions. The relative importance of intensity of Facebook usage in different types of social capital development implies that users with high engagement in Facebook interaction are more likely to maintain and develop bonding social capital over Facebook. However, such engagement, although significant for bridging social capital, may not be a major reason for users to develop bridging social capital. It is more likely that bonding and bridging social capital may be subject to different sets of Facebook behaviors, which warrants future research.

Second, this research also provides empirical evidence about the main driving forces for the intensity of Facebook usage (Park et al., 2009) in the UAE context. UAE is a traditional Islamic country with a large population of expatriates from all over the world. The co-existence of youth from multiple cultural backgrounds creates a unique environment for us, from which to examine the universality of motivations to use Facebook. Our findings only support the need for socialization as a driving force for intensity of Facebook usage among the youth in the UAE, implying that the driving forces of Facebook usage are likely vary for different social and cultural contexts. In the future, more cross-cultural studies would be helpful to illuminate the regional distinctiveness in the motivations for Facebook usage.

Finally, adding to the existing evidence about ethnic differences in the relationship between intensity of Facebook usage and social capital building between white and non-white users (Valenzuela et al., 2009b), this research extends this line of research to demonstrate the significant difference between Arab and non-Arab users in intensity of Facebook usage as well as bonding social capital development on Facebook. Moreover, considering strong cultural connotation of gender differences in Arab countries, our results about the gender differences in intensity of Facebook usage and social capital development provide much updated evidence about the users in Arab countries.

As one of the early attempts to examine Facebook users in Arab countries, this research is not without limitations. Particularly, with a cross-sectional design, our empirical results cannot prove causality but correlation. In future research, it would be interesting to examine the evolvement of social capital development associated with Facebook usage. It is likely that more social capital reaped from Facebook interactions will encourage users to get more involved. With a longitudinal design, such dynamics can be well investigated.

In addition, the cross-sectional design also limits our interpretation of the ethnic/gender differences. For example, are such differences inherent and systematic or temporary? Is it possible that the difference between Arab and non-Arab users or gender difference is related to the different stages of Facebook appropriation? In the long run, are Facebook users getting more homogeneous in their usage pattern? Answers to such questions are beyond the scope of this research. But our results imply the necessity to examine the evolvement of Facebook users across different cultural and social contexts. Such research will provide more insight about how Facebook is appropriated over time in diversified contexts.

Finally, it will be interesting to replicate this study in different countries, particularly those Arabic countries with less diversity than UAE. Although we did not consider impact from external environment, such contextual influences indeed shape the social media behaviour and appropriateness. Thus, the future research can extend our model to account for the macro environmental impact.

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