



Facebook or Renren? A comparative study of social networking site use and social capital among Chinese international students in the United States



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ABSTRACT

Social networking sites (SNSs) are important tools for college students to maintain and develop social capital. Yet, few studies on the social implications of using SNSs have focused on international students and their use of different social media platforms for social capital. This study aims to fill this gap by examining the implications of using host country and home country SNSs for social capital among Chinese international students in the United States. A survey of Chinese international students at a large public university ($N = 210$) reveals that both Facebook and Renren use are positively associated with bridging social capital but not with bonding social capital. Facebook use has a stronger relationship with bridging social capital than does Renren use. Yet, only Renren use has a significant and positive relationship with maintaining home country social capital. These results have practical implications for international students to develop different types of social capital through different social media platforms.

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1. Introduction

A growing body of literature has shown that using social networking sites (SNSs) is positively related to social interaction and network building among college students, contributing to their social capital (Ellison, Steinfield, & Lampe, 2007; Steinfield, Ellison, & Lampe, 2008). However, most research has focused on one single social media platform—and more often than not—Facebook. Only a few studies have examined how using indigenous SNSs, such as Renren in China, Cyworld in Korea, or VKontakte in Russia, is related to social capital (Ji et al., 2010; Liu, Shi, Liu, & Sheng, 2013). Even fewer studies have examined whether different social media platforms may have differential implications for social capital. As importantly, there has been a striking lack of research on how international students use and benefit from social media in the host and home countries, respectively (see an exception in Lin, Peng, Kim, Kim, & LaRose, 2011, which however only examines Facebook). In this study, we explore the usage patterns of both Facebook and Renren, the two major SNSs used by Chinese international students in the US coming from mainland China and their implications for social capital in the host and home countries.

Our research has both scholarly and practical significance. First, international students in US higher education have increased by more than 30 percent over the past decade, contributing to the brain gain in the US and the socioeconomic development in the home countries (Alberts, Hazen, & Hazen, 2013; Bevis & Lucas, 2007; Institute of International Education, 2012). In particular, Chinese international students accounted for more than 25 percent of the international student pool in the US in 2011/12 (Institute of International Education, 2012). Because migrants have to cope with high levels of uncertainty when arriving in the US, social capital, that is, resources embedded in social relationships (Coleman, 1988; Lin, 2001), can play a crucial role in their social adaptation and professional development (Chen & Wellman, 2009; Kim, 1988; Nee & Sanders, 2001; Neri & Ville, 2008). Thus, a better understanding of the relationship between social media use and Chinese international students' building and maintaining of social capital has practical implications.

Second, Chinese international students in the US offer a unique case to examine and compare the differential usage patterns of host country and home country SNSs and their implications for social capital. Given Facebook's dominant status as the leading SNS around the globe (World Maps of Social Networks, 2012), China is one of the few countries where indigenous SNSs remain more popular than or as popular as Facebook. Renren, established in 2005 under the name of Xiaonei, was one of the clones inspired by Facebook, and has evolved as one of the most popular SNSs

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among young people in mainland China (CNNIC, 2011, 2013). As Facebook has been blocked in mainland China since 2009, most college students in mainland China do not use it. Instead, Renren is often their first choice. Yet, upon arrival in the US, Chinese international students coming from mainland China are likely to join Facebook to build up their new social networks in the host country and continue their use of Renren to maintain co-ethnic ties both in mainland China and beyond.

2. Social capital and SNS use

Social capital refers to resources embedded in one's social networks, which can be accessed and used for instrumental or expressive returns such as mutual support, reciprocity, and cooperation (Bourdieu, 1986; Coleman, 1988; Lin, 2001; Putnam, 2000). Bridging social capital refers to the values and resources embedded in the heterogeneous social networks, which contain weak ties, such as acquaintances, coworkers, and strangers, providing access to new and diverse information. Bonding social capital refers to those embedded in the homogenous social networks, which contain strong ties, such as family members and close friends, providing reciprocity, solidarity, and emotional support (Granovetter, 1973; Putnam, 2000).

The implications of the Internet for individuals' social capital have gained growing scholarly attention. Early studies suggested that the Internet decreased social capital by reducing face-to-face social interaction (Kraut et al., 1998; Nie, 2001; Nie & Erbring, 2000). However, more recent studies show that Internet use, especially online communication, can increase the size of social networks or supplement sociability offline, helping to generate or maintain social capital (Chen, 2013a; Hampton & Ling, 2013; Hampton & Wellman, 2001, 2003; Kraut et al., 2002; Valkenburg & Peter, 2007; Wellman, Haase, Witte, & Hampton, 2001).

Ellison et al. (2007) are among the first to examine the implications of Facebook use for bridging and bonding social capital. In addition to bridging and bonding social capital, they conceptualize a third form of social capital—maintained social capital—which refers to social capital associated with acquaintances from a previously inhabited community as opposed to close ties. Drawing on a sample of college students, they find that the intensity of Facebook use is positively predictive of all the three types of social capital.

Ellison and colleagues' seminal work has inspired a growing body of literature. Most studies show positive relationships between SNSs used in the US and beyond, especially Facebook and MySpace, and various forms of social capital, such as weak-tie based bridging and strong-tie based bonding social capital or other indicators like life satisfaction, social trust, civic engagement, or political participation (Brooks, Welser, Hogan, & Titsworth, 2011; Burke, Marlow, & Lento, 2010; Ellison, Steinfield, & Lampe, 2011; Hofer & Aubert, 2013; Johnston, Tanner, Lalla, & Kawalski, 2013; Lampe, Vitak, & Ellison, 2013; Pasek, More, & Romer, 2009; Pfeil, Arjan, & Zaphiris, 2009; Steinfield, DiMicco, Ellison, & Lampe, 2009; Steinfield et al., 2008; Valenzuela, Park, & Kee, 2009).

However, the existing literature has several gaps. First, little is known about the applicability of these findings regarding American or global SNS use and social capital to indigenous SNSs such as Renren, Cyworld, and VKontakte (see an exception in Liu et al., 2013, which shows that the intensity of Renren use is related to social capital among college students in China). Second, few studies compare whether the simultaneous use of American or global SNSs and indigenous SNSs would have similar or different implications for social capital. Two cross-cultural studies compare the levels of bridging and bonding social capital generated by general SNS use between American and Asian users—Korean and Chinese users

respectively (Choi, Kim, Sung, & Sohn, 2011; Chu & Choi, 2010). However, the two studies do not directly investigate the relationship between SNS use and social capital or focus on any specific social media platform. Another cross-cultural study compares the relationships between motivations of general SNS use and social capital in the US, China, and South Korea (Ji et al., 2010). Yet, it does not focus on the actual usage patterns of any specific SNS. As importantly, little research has examined international students, except one study showing a positive relationship between Facebook usage and online bridging social capital among international students (Lin et al., 2011). However, Facebook might not be the only or even the major SNSs used by international students who come from countries where indigenous SNSs are dominant. Thus, aiming to shed light on the social implications of global and indigenous SNSs, this study focuses on the association of Chinese international students' use of host country and home country SNSs (Facebook and Renren) with their perceived bridging, bonding, and maintained social capital.

2.1. Bridging social capital

Most of the literature indicates a positive relationship between SNS use and weak-tie based bridging social capital. Donath and boyd (2004) hypothesize that the Internet allows weak ties to be formed and maintained easily. A panel data analysis shows that Internet use increases changes in weak ties in Americans' networks during a two-year period (Chen, 2013b). A longitudinal study reveals an increase of the number of acquaintances in SNS users' social networks (Brandtzæg, 2012). Another longitudinal study finds that the intensity of Facebook use exerts a causal effect on the levels of bridging social capital among American college students (Steinfeld et al., 2008). The positive relationship between the intensity of SNS use and bridging social capital also applies to corporate employees using an organizational SNS (Steinfeld et al., 2009). In addition, studies in a variety of settings ranging from South African Facebook users (Johnston et al., 2013), Norwegian Facebook and MySpace users (Brandtzæg, 2012), international students using Facebook in the US (Lin et al., 2011), and Chinese student users of Renren (Liu et al., 2013) show a positive relationship between SNS use and bridging social capital. Thus,

H1a. The intensity of Facebook use by Chinese international students in the US is positively associated with bridging social capital.

H1b. The intensity of Renren use by Chinese international students in the US is positively associated with bridging social capital.

2.2. Bonding social capital

Unlike the consistent findings on weak-tie based bridging social capital, the existing literature has debated whether online communication in general and SNS use in particular enhance, impede, or do not affect strong-tie based bonding social capital (see a review in Chen, 2013a). Previous studies argued that Internet communication might substitute weak ties for strong ties due to a trade-off between time spent with strangers online and that with family and friends offline (Nie & Erbring, 2000). Yet, SNSs are found to mainly encourage communication with existing offline connections rather than to initiate new contacts online (Ellison et al., 2007; Subrahmanyam, Reich, Waechter, & Espinoza, 2008). Therefore, the use of SNSs at least appears not to impede the maintenance of strong ties.

On the one hand, a number of studies, besides the work of Ellison et al. (2007), show that SNS use is positively associated with

strong-tie based bonding social capital. Greater intensity of using an organizational SNS is positively associated with workers' bonding social capital (Steinfeld et al., 2009). Active Facebook users have more bonding social capital than do light users (Lampe et al., 2013). Outside the US, students in China gain more bonding social capital through intensive use of Renren (Liu et al., 2013). One study shows that SNS usage facilitates users' interaction with close connections offline (Brandtzæg, 2012). The more frequently people interact with each other on Facebook, the more likely their ties are strong (Johnston et al., 2013).

On the other hand, numerous studies show that SNS use may have little or no impact on strong-tie based bonding social capital. Longitudinal data have revealed no relationship between the frequency of contacting family and friends on Facebook with students' bonding social capital (Brooks et al., 2011). Greater intensity of Facebook use is not associated with bonding social capital (Johnston et al., 2013; Lin et al., 2011). An important factor might be that the trust, emotional bond, and obligations embedded in strong ties motivate people to use multiple channels to maintain contact with their strong ties, both on and off social media (Haythornthwaite, 2005). In light of the contradictory findings in the existing literature, a question instead of a hypothesis is formulated:

RQ1. How are the intensity of Facebook and Renren use associated with bonding social capital, respectively?

2.3. Maintaining home country social capital

The operationalization of bonding and bridging social capital in Ellison et al. (2007) has primarily focused on the resources accessible to college students on campus rather than in the larger society (pp. 1152–1153). Ellison et al. (2007) also direct attention to a new form of social capital—maintained social capital, referring to the values generated from acquaintances that are geographically separated as life changes, for instance ties left behind when students leave their hometown for college. This concept is particularly useful to the study on international students who leave their home country for education in the host country. They not only need to develop new social networks in the host country but also have to maintain contact with their old social ties in the home country. As interpersonal networks remain conditioned by geographic distance even in the age of the Internet (Chen & Wellman, 2009), the resources obtainable through old social ties in the home country are likely to be different from those accessible within the host country. Thus, in addition to distinguishing between bridging and bonding social capital within the US, geographic distance beyond national boundaries is taken into account to examine different types of social capital accessible to Chinese international students in the US.

Building on Ellison et al. (2007), we define maintaining home country social capital as social capital that is related to preexisting social ties that immigrants and sojourners like Chinese international students have in their home country. Besides Ellison et al. (2007), one study in South Africa also finds a positive association between the intensity of Facebook use and maintained social capital (Johnston et al., 2013). As Facebook has been blocked in mainland China, Chinese international students from mainland China might largely use Renren to maintain contact with their old social ties. Even though Facebook can be accessed in mainland China through bypassing the Great Firewall, few people in mainland China would take the trouble (Canaves, 2011). Thus,

H2a. The intensity of Facebook use is not associated with maintaining home country social capital.

H2b. The intensity of Renren use is positively associated with maintaining home country social capital.

2.4. Host or home, which SNS has more implications for social capital?

Technologically, Facebook and Renren have similar features and functions. However, when considering them from an international and intercultural perspective, they are very different to Chinese international students in the US. Facebook is a host country SNS, the content of which is mainly produced in English by people living in the host country, while Renren is a home country SNS, the content of which is produced mainly in Chinese and targets Chinese nationals. Thus, rather than usability, different grouping of users may lead to different implications of the two sites for social capital. As Facebook has been blocked in mainland China, Chinese international students might use Renren much more to contact their social ties in the home country and to maintain home country social capital.

In terms of bridging and bonding social capital in the US, the similarities and differences of the two sites' roles are unclear. As language barrier constrains Renren use only among people who know Chinese, Chinese international students are likely to only use Facebook to maintain contact with their host and international contacts. However, they might use both the host country and home country SNSs to gain information and support from their co-ethnic ties outside of China. Thus, a question is formulated:

RQ2. Do the intensity of Facebook and Renren use have different relationships with bridging and bonding social capital, respectively?

3. Data and method

3.1. Data collection

An online survey was conducted at a large public university in the US in May and June 2012. The survey reached at least 90 percent of all the 854 Chinese international students, who were all from mainland China, at this university at that time through email addresses collected from the University Directory, Newsletters, QQ group emails (the most popular Chinese IM), Facebook and Renren groups of the most prominent Chinese students organization on campus, with which almost all Chinese international students were registered, and Newsletters of the International Student and Scholar Services, which all the Chinese international students could receive. A drawing for 10 cash prizes adding up to \$300 was used to encourage participation.

A total of 212 participants completed the online survey. As qualified participants have to use at least one of the two sites,

Table 1
Descriptive statistics for the sample.

	Mean or % (N)	S.D.
<i>Gender</i>		
Male	49.52% (104)	
Female	50.48% (106)	
<i>Age</i>	24.40	3.42
<i>Educational level</i>		
Undergraduate students	21.43% (45)	
Graduate students	78.57% (165)	
<i>Year in the U.S.</i>	3.32	3.68
<i>Facebook members</i>	97.14% (204)	
<i>Renren members</i>	85.71% (180)	
<i>People who have both Facebook and Renren accounts</i>	82.86% (174)	

Facebook and Renren, and have to stay in the US for at least 10 months, the final sample size was 210 Chinese international students. Thus, the estimated response rate was at least 24.59%. In this sample, there were 204 participants who used Facebook, 180 participants who used Renren, and 174 participants who used both the SNSs (see Table 1 for sample demographics).

3.2. Measures

3.2.1. Dependent variables

The measures of bridging, bonding, and maintaining home country social capital were adapted from Williams (2006), Ellison et al. (2007). All of the social capital items were measured using a 5-point Likert scale. A principal components factor analysis with varimax rotation was used to ensure that the items reflected three distinct forms of social capital (see Table 2).

The measure of bridging social capital adopted six out of the eight items in the scale constructed by Ellison et al. (2007) ($\alpha = 0.84$, $M = 3.71$, $S.D. = 0.58$). Bonding social capital was measured by adapting the scale constructed by Ellison et al. (2007) as well. In this study, we added one item (“There are several people I feel comfortable talking to at this university about intimate personal problems”) based on Williams (2006) original scale and removed one cross-loading item (“The people I interact with at this university would be good job references for me”) to create the final bonding social capital scale ($\alpha = 0.81$, $M = 3.89$, $S.D. = 0.63$). Following Ellison et al. (2007), it is important to emphasize that the measure of bridging and bonding social capital in the US focused on the resources accessible to Chinese international students at the university rather than in the larger US society. The reason is that international students’ major social networks are within the university due to their relatively limited experiences off campus. Maintaining home country social capital refers to social capital associated with previous social ties that Chinese international students have in China. The original scale constructed by Ellison et al. (2007) was

adapted to create the maintaining home country social capital scale ($\alpha = 0.88$, $M = 4.03$, $S.D. = 0.69$).

3.2.2. Independent variables

The intensity of Facebook use and the intensity of Renren use were measured respectively using seven items adapted from the intensity scale created by Ellison et al. (2007). Only the participants who had a Facebook or Renren account answered questions related to Facebook or Renren use, respectively. Besides two open-ended questions about amount of time spent on the SNSs on a typical day and the number of SNS friends, the measure also includes five attitudinal questions using a 5-point Likert scale. The two items of the time spent and the number of friends were first transformed via logarithm as they did not follow a normal distribution. Then the seven individual items were standardized due to their different scales and averaged to create the intensity of Facebook use ($\alpha = 0.88$) and Renren use ($\alpha = 0.89$), respectively (see Table 3).

3.2.3. Control variables

Demographic variables were controlled, including gender, length of stay in the US (years in the US), educational level (undergraduate and graduate students), field of study (science-related schools and liberal arts-related schools).

4. Results

4.1. Facebook, Renren, and bridging social capital

First, relationships between the intensity of Facebook and/or Renren use and bridging social capital were tested in regression analyses (see Table 4). Demographic variables were entered first as a block in the regression followed by the block of intensity of Facebook use in Model 1. In Model 2, the intensity of Renren use was entered as a block following the block of demographic

Table 2
Factor analysis results for bridging, bonding, and maintaining home country social capital.

Individual items and scales	M	S.D.	Factor loadings		
			Maintaining home country social capital	Bridging social capital	Bonding social capital
Bridging social capital (Cronbach's $\alpha = 0.84$)					
I am willing to spend time to support general activities at this university	3.77	0.73	.06	.79	.08
I am interested in what goes on at this university	3.98	0.56	.10	.76	.09
Interacting with people at this university makes me want to try new things	3.77	0.72	.17	.71	.28
At this university, I come into contact with new people all the time	3.33	0.91	-.05	.70	.19
I feel I am part of this university community	3.82	0.74	.01	.69	.29
Interacting with people at this university reminds me that everyone in the world is connected	3.61	0.89	.15	.67	.18
Bonding social capital (Cronbach's $\alpha = 0.81$)					
There are several people at this university I can turn to for advice about making important decisions	3.92	0.80	.05	.22	.81
There are several people I feel comfortable talking to at this university about intimate personal problems	3.74	0.88	.04	.21	.79
If I needed an emergency loan of \$100, I know several people at this university I can turn to	4.00	0.84	.28	.01	.73
There are several people at this university I trust to solve my problems	3.93	0.79	.16	.29	.72
I do not know people at this university well enough to get them to do anything important	3.86	0.86	-.01	.25	.55
Maintaining home country social capital (Cronbach's $\alpha = 0.88$)					
If I needed to, I could ask some friends in China to do a small favor for me	4.14	0.79	.87	.05	.18
It would be easy to find friends to come to my friend reunion party in China	4.05	0.89	.86	.06	.11
I'd be able to stay with some friends in China if traveling back to China	4.09	0.81	.83	.04	.13
I'd be able to find about events in China from some friends living there	4.08	0.77	.81	.06	.09
I'd be able to find information about a job or internship from some friends in China	3.07	0.93	.72	.15	-.04
Eigenvalues			5.31	2.92	1.61
% Of variance			33.20	18.23	10.06

Table 3
Descriptive statistics for the intensity of Facebook and Renren use.

	M	S.D.
<i>Intensity of Facebook use (Cronbach's $\alpha = 0.88$)</i>	0.00	0.76
On a typical day, about how much time do you spend on Facebook? (minutes)	37.46	63.70
About how many total Facebook friends do you have?	199.03	225.42
Facebook is part of my everyday activity	2.82	1.29
I am proud to tell people I am on Facebook	2.99	0.99
I feel out of touch when I have not logged onto Facebook for a day	2.65	1.23
I feel I am part of the Facebook community	2.82	1.09
I would be sorry if Facebook shut down	3.38	1.19
<i>Intensity of Renren use (Cronbach's $\alpha = 0.89$)</i>	0.00	0.78
On a typical day, about how much time do you spend on Renren? (minutes)	75.29	72.72
About how many total Renren friends do you have?	400.99	279.48
Renren is part of my everyday activity	3.91	1.12
I am proud to tell people I am on Renren	3.37	1.08
I feel out of touch when I have not logged onto Renren for a day	3.62	1.15
I feel I am part of the Renren community	3.58	1.06
I would be sorry if Renren shut down	3.92	0.96

variables. In Model 3, the intensity of Facebook and Renren use were added together.

As shown in Model 1 (see Table 4), the intensity of Facebook use had a significantly positive relationship with bridging social capital, controlling for demographic variables ($\beta = .37, p < .001$). In Model 2, the intensity of Renren use was also significantly associated with bridging social capital ($\beta = .31, p < .001$). In Model 3, the intensity of use of both Facebook ($\beta = .30, p < .001$) and Renren ($\beta = .23, p < .01$) had significantly positive relationships with bridging social capital. Therefore, H1a and H1b were supported. Comparing the β s for the intensity of Facebook and Renren use in Model 3, Facebook use had a stronger relationship with bridging social capital than did Renren use, answering part of RQ2.

4.2. Facebook, Renren, and bonding social capital

Second, relationships between the intensity of Facebook and/or Renren use with bonding social capital were tested using the same regression models (see Table 5). In all the three models, neither Facebook nor Renren intensity of use were significantly related to bonding social capital. Thus, the answer to RQ1 regarding the

relationships between the intensity of Facebook and Renren use and bonding social capital is No. The answer to RQ2 in terms of the different implications for bonding social capital between the two SNSs is that there is no difference.

4.3. Facebook, Renren, and maintaining home country social capital

Third, relationships between the intensity of Facebook use and/or intensity of Renren use and maintaining home country social capital were tested using the same regression models (see Table 6). In Model 1 and Model 3, the social implication of the intensity of Facebook use was not statistically significant, supporting H2a. In Model 2, the intensity of Renren use was significantly related to maintaining home country social capital ($\beta = .17, p < .05$). In Model 3, after controlling for the intensity of Facebook use variable together with demographic variables, the intensity of Renren use still had a significantly positive relationship with the dependent variable ($\beta = .16, p < .05$). Thus, H2b was supported.

5. Discussion and conclusion

5.1. Major findings

Previous studies regarding SNS use and their implications for social capital have mainly focused on Facebook use in a single country. Only a few studies have investigated the indigenous SNSs used beyond the US or focused on international students. The present study greatly extends the literature on SNS use and social capital by focusing on both host country and home country (indigenous) SNSs among Chinese international students in the US. As Facebook is the dominant SNS for American students and Renren is heavily used by Chinese students in mainland China, Chinese international students in the US use both the host country and home country SNSs to keep in touch with their friends in the host and home countries.

Being the first to examine the relationships of host country and home country SNS usage with different forms of social capital among Chinese international students in the US, this study offers a layered understanding of the implications of SNS use for social capital from an internationally comparative perspective. In addition to bridging and bonding social capital used in previous studies, a new type of maintaining home country social capital is defined and measured in this study, taking into account long distance

Table 4
Regressions on bridging social capital.

	Model 1 ^a : control factors, Facebook intensity Bridging social capital β	Model 2 ^b : control factors, Renren intensity Bridging social capital β	Model 3 ^c : control factors, Facebook intensity, and Renren intensity Bridging social capital β
Gender (Female = 1)	-.05	-.02	-.04
Year in the US	-.10	.00	-.00
Education (Graduate = 1)	-.28***	-.26**	-.26**
Field of study (Science = 1)	-.06	-.07	.06
Adjusted R^2	.06	.06	.05
Facebook intensity	.37***	–	.30***
Renren intensity	–	.31***	.23**
R^2 change	.11***	.09***	.16***
Adjusted R^2 total	.18	.14	.21

Notes:

* $p < .05$,

** $p < .01$,

*** $p < .001$.

^a $N = 204$.

^b $N = 180$.

^c $N = 174$.

Table 5
Regressions on bonding social capital.

	Model 1 ^a : control factors, Facebook intensity Bonding social capital β	Model 2 ^b : control factors, Renren intensity Bonding social capital β	Model 3 ^c : control factors, Facebook intensity, and Renren intensity Bonding social capital β
Gender (Female = 1)	.06	.13	.12
Year in the US	-.01	.11	.12
Education (Graduate = 1)	-.09	-.05	-.06
Field of study (Science = 1)	.00	.07	.06
Adjusted R^2	-.01	.01	.01
Facebook intensity	.12	–	.04
Renren intensity	–	.11	.10
R^2 change	.01	.01	.00
Adjusted R^2 total	.00	.02	.01

Notes:

* $p < .05$,** $p < .01$,*** $p < .001$.^a $N = 204$.^b $N = 180$.^c $N = 174$.**Table 6**
Regressions on maintaining home country social capital.

	Model 1 ^a : control factors, Facebook intensity Maintaining home country social capital β	Model 2 ^b : control factors, Renren intensity Maintaining home country social capital β	Model 3 ^c : control factors, Facebook intensity, and Renren intensity Maintaining home country social capital β
Gender (Female = 1)	.05	.14	.12
Year in the US	-.52***	-.16*	-.17*
Education (Graduate = 1)	.09	.06	.07
Field of study (Science = 1)	-.17**	-.18*	-.18*
Adjusted R^2	.31	.07	.06
Facebook intensity	.08	–	.00
Renren intensity	–	.17*	.16*
R^2 change	.01	.03*	.03
Adjusted R^2 total	.31	.09	.07

Notes:

* $p < .05$,** $p < .01$,*** $p < .001$.^a $N = 204$.^b $N = 180$.^c $N = 174$.

border-crossing social relationships. For Chinese international students, our findings show that the use of both the host country and home country SNSs, especially the host country SNS, is strongly related to bridging social capital but not related to bonding social capital in the US. Only the home country SNS use is related to maintaining home country social capital.

First, consistent with previous research (Brandtzæg, 2012; Ellison et al., 2007; Johnston et al., 2013; Lin et al., 2011; Liu et al., 2013; Steinfield et al., 2008, 2009), both Facebook and Renren use have significantly positive relationships with Chinese international students' bridging social capital. That is, Facebook and Renren are good tools for Chinese international students to form and maintain weak ties in the US, which would allow them to have broader social networks for diverse information and resources.

Second, advancing the existing literature that has mainly centered on Facebook use, our results show that the intensity of Facebook use has a stronger relationship with bridging social capital than does the intensity of Renren use. In other words, for international students to build up their connections in the host country, Facebook use seems to be more effective than does the indigenous Renren use. Research on immigrant or international student use of host country and co-ethnic language media shows that host country media play an important role in providing information about

the host culture and society (Kim, 1988). While Chinese international students can communicate with their Chinese friends in the US on either Facebook or Renren, it is logical to assume that Facebook offers a much more viable and effective venue for meeting and developing connections with non-Chinese contacts, which in turn contributes to their bridging social capital.

Third, neither Facebook nor Renren use have a significant relationship with bonding social capital in the US. The finding is consistent with some previous studies showing that Facebook usage does not predict online or offline bonding social capital (Brooks et al., 2011; Johnston et al., 2013; Lin et al., 2011) but is different from findings that the SNS plays a significant role in helping users maintain close relationships that are associated with bonding social capital (Ellison et al., 2007; Lampe et al., 2013; Liu et al., 2013; Steinfield et al., 2009). Two factors may contribute to the results. First, this study measures bonding social capital in the US university context. Because both Facebook and Renren use are not significantly related to bonding social capital, it seems that language or cultural barriers may not be the major issue here. Nonetheless, given the time and energy involved in the development and maintenance of new strong ties, Chinese international students may not be able to develop many close relationships even on campus during their relatively short stay in the US. Second,

stronger ties usually use multiple modes of communication to keep in contact with each other (Haythornthwaite, 2005). For instance, Chinese international students may also use other online communication technologies like QQ (the most prevalent Chinese IM), WeChat (a popular Chinese IM), and Weibo (a popular Chinese SNS), Twitter, Google Talk, Instagram, as well as offline modes of communication to communicate with their strong ties, contributing to their bonding social capital.

Finally, the intensity of Renren use—but not Facebook use—is positively related to maintaining home country social capital. This is likely due to the fact that Facebook has been blocked in mainland China since 2009, and only very few Chinese people take the trouble of jumping the Great Firewall and keep using it. Thus, after they come to the US, Chinese international students might rely on Renren rather than Facebook to keep in touch with their preexisting social ties in China for social capital. Yet, Renren use just has a moderate implication for maintaining home country social capital. One possible explanation is that even though online communication technologies play an important role in facilitating communication over long distance, geographic distance still constrains communication among people in different countries. Online interaction on SNSs can supplement but cannot substitute face-to-face and telephone interaction, which remain indispensable for the maintenance of long-distance social connections (Chen & Wellman, 2009; Mok, Wellman, & Carrasco, 2010; Wellman et al., 2001).

5.2. Limitations

The present study has several limitations that future research should address. First, the study only focuses on the specific population of Chinese international students in the US. Thus, the results may not be generalizable to all international students in the US. Since Facebook has been blocked in mainland China since 2009, it makes Facebook use among Chinese international students coming from mainland China a unique case. Therefore, future research needs to expand to international students from other countries. Second, the study does not differentiate bridging and bonding of social capital in the home country. Future research needs to explore social media implications for both bridging and bonding social capital in the home country. Third, social capital is a complex concept, which can refer to social networks or the values generated through social networks (see a review in Williams, 2006). The measurement of social capital in this study is limited to resources embedded in social networks. Thus, it cannot reflect the possibly changing quantity and quality of social ties through social media use. Future research needs to explore the social implications of social media use by adopting social network measures of social capital.

5.3. Contributions

The prevalence of SNSs makes them important tools for students to maintain and develop social capital. International students especially need to develop their social capital for social adaptation and professional development. Fortunately, they have various choices of SNSs, both host country and home country ones. Yet, there has been a lack of research on how international students could maintain and gain social capital through using host country and home country SNSs. The study makes significant contributions by examining the implications for social capital of using both host country and home country SNSs by Chinese international students in the US.

The research also has practical implications for the integration of international students in the host society as well as maintaining contacts with the home society. If international students need to broaden their social networks and gain diverse information in their

new environment, they need to invest more time and energy in using host country SNSs, as host country SNSs play a more important role for bridging social capital than do home country SNSs. At the same time, International students ought to keep using home country SNSs to maintain home country social capital. We expect that this research will inspire future comparative studies on the relationships of host country and home country SNS usage with different forms of social capital among international students or other migrant groups in and beyond the US.

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