



# Self-disclosure on social networking sites, positive feedback, and social capital among Chinese college students



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## ARTICLE INFO

### Article history:

Available online 1 July 2014

### Keywords:

Self-disclosure  
Social networking site  
Social capital  
Gender difference

## ABSTRACT

Drawing on social capital theory, this study examined whether college students' self-disclosure on a social networking site was directly associated with social capital, or related indirectly through the degree of positive feedback students got from Internet friends. Structural equation models applied to anonymous, self-report survey data from 264 first-year students at 3 universities in Beijing, China, indicated direct effects on bridging social capital and indirect effects on bonding social capital. Effects remained significant, though modest in magnitude, after controlling for social skills level. Findings suggest ways in which social networking sites can foster social adjustment as an adolescent transition to residential college environments.

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## 1. Introduction

Social networking sites (SNS) such as Facebook and Myspace have become an important venue for building and maintaining social networks and relationships, especially among young people. These websites offer individuals a platform to create personal Web pages, connect to known and unknown peers, disclose information about themselves, and seek information about other individuals. Previous research (Ellison, Steinfield, & Lampe, 2007; Steinfield, Ellison, & Lampe, 2008; Valenzuela, Park, & Kee, 2009) has linked SNS activity/participation to the accrual of social capital, especially bridging capital. But the mechanisms by which SNS activity affects social capital are not well known.

A key factor in building capital is self-disclosure, especially in early phases of relationships. Despite considerable interest in self-disclosure in SNS (Hollenbaugh & Ferris, 2014; Kwak, Choi, & Lee, 2014; Park, Jin, & Annie Jin, 2011; Rau, Gao, & Ding, 2008), few scholars have examined its role in building social capital (Maksl & Young, 2013; Trepte & Reinecke, 2013). We test this relationship in a developmental context that requires individuals to rebuild or expand their social networks: the transition to residential college. We consider an important factor that may account for level of self-disclosure as well as the accrual of social capital (social skill), and we examine factors that may moderate (gender) or

mediate (positive feedback on disclosure) associations between self-disclosure and social capital.

## 2. Theoretical background and hypotheses

### 2.1. Accruing social capital during the transition to college

Social capital theory postulates that resources accumulated through building social relationships are instrumental in adapting to life circumstances (Coleman, 1988). Based on Granovetter's (1973) concept of weak and strong ties, Putnam (2001) distinguished two types of social capital. Bridging capital refers to the capacity to access resources through a wide array of social relationships and networks. It is derived from social ties that connect individuals to people of different lifestyles and backgrounds who can provide useful information, new perspectives, and other forms of instrumental support. Bonding capital involves more sustained support, especially emotional support, from individuals with whom one shares an intimate and reciprocal relationship. In contrast to the relatively weak ties that provide bridging capital, bonding capital tends to come from fellow members of small homogeneous social networks.

Concerns about social capital are heightened during periods of transition that require reorganization of social networks, such as the move to a residential college in late adolescence. As late adolescents move to residential college settings, they are particularly poised to benefit from SNS. The move creates distance from and strains on relationships with established intimate associates,

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thereby threatening a young person's bonding capital. The college environment places new academic, psychological, and social demands on students (Gerdes & Mallinckrodt, 1994; Lapsley, Rice, & Shadid, 1989), for which the resources of local social capital would be helpful. To meet these demands, students need to rebuild or at least reshape their social networks. As is obvious from their name, a primary purpose of social networking sites is to help individuals seek, establish, and then maintain social relationships—to build, rebuild, and regulate the sorts of social networks that provide social capital (Maksl & Young, 2013).

Following Donnath & Boyd's (2004) suggestion that SNS may be particularly well suited to fostering bridging capital, several investigators examined associations between SNS activity and social capital (Ellison et al., 2007; Greenhow & Burton, 2011; Steinfield, Ellison, & Lampe, 2008). They reported significant associations between bridging (as well as bonding) social capital and "Facebook intensity"—generally, a measure of the amount of time or energy study participants devoted to Facebook use and the importance they attached to this social medium. From these studies, however, the specific SNS activities that foster social capital remain unclear.

## 2.2. Self-disclosure on SNS and social capital

We propose that to rebuild and reshape their social networks, college students must prove themselves attractive to potential network members. In SNS, self-disclosure is an essential element of this process (Sheldon, 2009). Revealing information about oneself on such sites as Facebook or MySpace is the basis for enticing others to ask to be a friend or to respond positively to one's request to be their friend. Once the "friend" connection has been established, self-disclosure is the basis of virtual interactions that serve to deepen the relationship (Walker & Wright, 1976).

Self-disclosure is a process by which an individual shares personal feelings, thoughts, experiences and information with others (Derlega, Metts, Petronio, & Margulis, 1993). SNS encourage disclosure of basic information about self, along with inner thoughts and emotional states (Mazer, Murphy, & Simonds, 2007). Such disclosure is a crucial element in the process of relationship development (Altman & Taylor, 1973). Young people tend to disclose more on Facebook than in offline environments, and unlike comments made in face-to-face interactions, which typically involve only one or a small number of peers, disclosures in SNS are usually broadcast to one's entire network of virtual friends. These characteristics make self-disclosure on SNS especially instrumental in fostering social capital, particularly during late adolescence (Subrahmanyam, Reich, Waechter, & Espinoza, 2008).

Investigators have examined numerous aspects of self-disclosure on SNS, including norms, motives, practices, and, to some extent, connections to social capital. In terms of norms, college students tend to admire Facebook profiles with broader rather than limited information (Limperos, Tamul, Woolley, Spinda, & Shyam, 2014; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008), although there is some expectation that more intimate information should be shared privately rather than be open to all Facebook friends (Bazarova, 2012).

Awareness of norms leads individuals to be intentional and strategic in what they post on SNS (Qui, Lin, Leung, & Tov, 2012). Uses and gratifications theory postulates that individuals use media in specific ways to achieve certain goals or gratifications. Applying this theory to SNS, Chang and Heo (2014) found that relationship maintenance and initiation were especially strong motives among college students for using SNS. The stronger these motives are, the more information young people are likely to post (Park et al., 2011). Nosko, Wood, and Molema (2010) reported that those seeking new relationships were more likely to disclose sensitive or potentially stigmatizing information, whereas Seidman

(2014) found that honest self-disclosure was more common among students trying to deepen existing relationships than those seeking new affiliations.

Breadth and depth of information disclosed on SNS are likely to have an impact on social capital—breadth because it enhances a person's appeal to a wider audience (bridging capital) and depth because it fosters deeper connections (bonding capital). Evidence for these connections, however, is still indirect. Maksl and Young (2013) found that the more social capital college students felt they accrued from Facebook, the more information they were willing to disclose on their profile; actual disclosure was not assessed. Trepte and Reinecke (2013) found reciprocal associations over time between frequency of SNS use and level of disclosure, but only for those reporting high levels of social capital.

These patterns of association between SNS use and social capital, combined with the inclination of college students to self-disclose on SNS as part of their motive to initiate or deepen social relationships, leads to our first hypothesis.

**H1.** Students' level of self-disclosure on their SNS will have a positive direct influence on their perceptions of bridging and bonding social capital.

## 2.3. The mediation role of positive comments

The connection between self-disclosure and social capital may not be direct. "Friending" someone on SNS does little more than establish a rudimentary relationship. To establish a connection that provides social capital, a stronger connection is required, especially for bonding capital. We propose positive feedback as a variable that mediates the association between self-disclosure on SNS and levels of bridging and bonding social capital. When an individual reveals personal information about self—whether innocuous events of the day or more significant facts such as changes in key relationships or employment status—all of the person's SNS friends and anyone else granted access to the person's SNS page can comment on the posting.

Positive comments are indicative of acceptance, care and attention, signaling the person's attractiveness to the responder and strengthening the bond between the two persons. Tong and Walther (2011) identified activities like these as relationship maintenance signals. They may serve a bonding social capital function in that they represent an investment in a given relationship (Jang & Yoo, 2009). Again, this feedback should be especially salient during the nascent phases of relationships or when individuals are rebuilding or reorganizing their social network, as is usually the case during the initial year in a residential college. Jang and Yoo (2009) added that positive comments make one popular on SNS, especially when the number is large. Therefore, a reasonable alternative to the first hypothesis is that the association between SNS self-disclosure and social capital will be mediated by the degree of positive feedback received from their SNS postings (self-disclosure).

**H2.** The number of positive comments received on students' SNS pages will mediate the association between self-disclosure on SNS and bridging and bonding social capitals.

## 2.4. Social skills as an important covariate

It is possible that the association between self-disclosure on SNS and social capital is due to another variable not yet considered, one that affects both target constructs. Though often debated, there is growing support among researchers for what is often termed the "rich get richer hypothesis," that the individuals who benefit most from on-line social interactions are those with high social skills, who already enjoy a great deal of success in face-to-

face social interactions (Ellison et al., 2007; Lee, 2009; Valkenburg & Peter, 2007). This is especially salient for college students, whose SNS activity often is directed at offline peers (Subrahmanyam et al., 2008). To account for the potential confounding effects, we include social skills in our model. We expect that associations among our targeted variables—self-disclosure, positive feedback, and social capital—will remain significant even after controlling for the effects of students' social skill levels.

**H3.** Associations between self-disclosure and social capital will remain significant even after controlling for social skills level.

### 2.5. Gender differences

In addition to social skill level, gender is an important consideration. Studies of adolescent friendships consistently indicate that, on average, girls disclose more to their friends than boys do (Rose & Rudolph, 2006), but these investigations describe offline behavior. Research considering gender differences in self-disclosure online has yielded mixed findings. Two separate studies (Schouten, Valkenburg & Peter, 2007; Valkenburg, Sumter, & Peter, 2011) reported greater online self-disclosure among girls than boys, but factors associated with rates of disclosure did not differ by gender. In both cases, however, the focus was on instant messaging, in which individuals can converse online with specific targets—often close friends. When examining self-disclosure on SNS, where the audience is much bigger and broader, investigators have reported that males disclose more basic information and more contact information than females (Special & Li-Barber (2012)), whereas females are more likely to post photos with familial relations (family photos) and emotional expression (eye contact, smile intensity and lack of sunglasses) (Tifferet & Vilnai-Yavetz, 2014). Because of equivocal findings, we pose the possibility of gender differences in associations between self-disclosure and social capital as a research question.

**Q1.** Are there gender differences in the hypothesized associations?

### 2.6. Summary of study goals

Researchers have established that SNS may be an important source of social capital for young people as they move into the college environment, but the specific SNS activity that contributes to bridging and bonding capital is not yet clear. Drawing from social capital theory as well as uses and gratification theory and previous research we propose that self-disclosure on SNS is a key element in this process, although its effect may be mediated by the degree of positive feedback that college students receive on the material that they disclose. Students comparatively high in social skills are likely to self-disclose more and more effectively on SNS; they are also likely to claim higher levels of social capital, but we expect that associations between disclosure and social capital will remain significant even after controlling for social skills level. The full conceptual model is illustrated in Fig. 1. In testing this model, we pursue the possibility of different patterns for males and females, although equivocal findings in past research discourage us from hypothesizing about the nature of gender differences.

## 3. Method

### 3.1. Participants

The sample included first-year undergraduate students from Beijing Normal University, Beijing Technology and Business

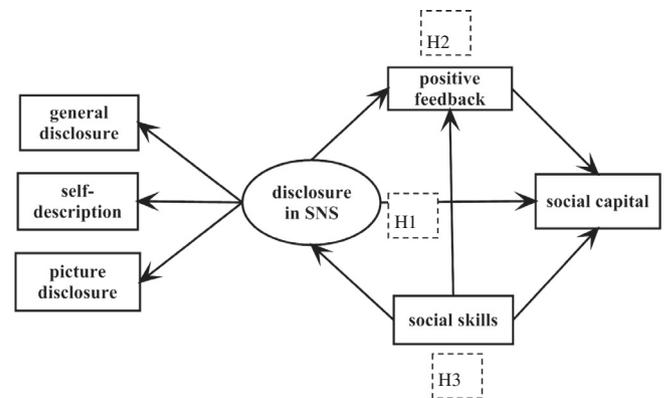


Fig. 1. Conceptual model.

University, and the China Institute of Industrial Relations. These schools were selected to represent a broader range of the college student population in China—in terms of socioeconomic background, occupational aspirations, and pre-college academic success—than could be obtained from a single university. Of 300 students invited to participate, 264 (88%) successfully completed all of the scales (76 males and 186 females, average age = 19.2). All participants were users of the social networking site Renren; 75% of their SNS friends came from offline. Very similar to Facebook, Renren has the functions of news feed, friending, wall, messages and inbox. Users of Renren have profiles on which they can disclose general personal information, share pictures, and describe their thoughts, feelings, and activities.

### 3.2. Procedures

Students in selected classes at participating universities were asked to participate in the study if they were Renren users. After providing informed consent, each participant completed an anonymous, self-report survey. Questions on the survey were presented in Chinese. The study was approved by the Institutional Review Board of the second author's university.

### 3.3. Measures

There are three fundamental features available on most SNS, including Renren, for individuals to disclose information about themselves (Tong, Van Der Heide, Langwell, & Walther, 2008): a space for basic information such as birthday, hometown and email address; a portion of the profile page (e.g., Facebook's "wall") to post short messages and update one's status; and place for uploading pictures or photo albums. With these features in mind, three scales assessing students' self-disclosure on Renren were developed from previous measures of the construct (Christofides, Muise, & Desmarais, 2009; Miller, Berg, & Archer, 1983; Siibak, 2009).

#### 3.3.1. General information disclosure

Participants indicated (yes/no) whether or not they disclosed each of 7 items of personal information on their Renren page: hometown, birth date, education history, habit/interest, Email, IM account, and mobile phone number. Items successfully formed a Guttman scale, Guttman  $\lambda = .75$  (Guttman, 1950), and were scored accordingly.

#### 3.3.2. Picture disclosure

Participants indicated which of six response categories (none, 1, 2–5, 6–10, 11–20, over 20) described the number of pictures they

posted on Renren in each of three categories: photos of just oneself, photos of self and friends or classmates, and photos of self and romantic partner or family members. These three categories were designed to represent increasing levels of intimacy in self-disclosure. Accordingly, the response to each item was weighted by its intimacy level (i.e., multiplied by 1, 2, or 3). Weighted item scores were then summed to form a scale score, which could range from 0 to 36.

### 3.3.3. Self-description

Items from Miller et al. (1983) Self-Disclosure Index were adapted for the SNS context to form an 8-item measure to reflect the breadth and depth of participants' self-disclosure about their feelings, opinions, and activities on Renren (1 = strongly disagree; 5 = strongly agree). Average score of the scale was used. The scale had high internal consistency (Cronbach's  $\alpha = .89$ ).

### 3.3.4. Positive feedback

Five items developed specifically for this study assessed how often participants received positive feedback on Renren postings of photos, opinions, and comments about their problems or things that made them proud. The items, which were answered on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree), formed a scale with high internal consistency ( $\alpha = .90$ ). Items were summed to form a scale score. The scale focused on the frequency rather than the level of positive feedback because pilot testing indicated that college students could not easily judge the level of positive feedback (i.e., whether friends' comments were mildly, moderately, or strongly positive).

### 3.3.5. Social capital

Ellison, Steinfield, and Lampe's (2011) measure of bridging and bonding social capital was translated into Chinese and administered to participants. Items were answered on a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Scale scores were constructed by calculating the mean of item responses; higher scores indicated higher levels of social capital. Both the 8-item bridging capital and the 5-item bonding capital scales had acceptable levels of internal consistency ( $\alpha = .78$  and  $.74$ , respectively).

### 3.3.6. Social skills self-report scale

To assess social skills level we employed a 30-item measure developed by Ma to examine individuals' perceptions of skill deficits (e.g. "I don't like to speak in the public", "I'm very afraid of encountering an embarrassing emergency in public"). Items are answered on a 5-point Likert scale (completely disagree to completely agree, here, 5 = disagree, 1 = agree), then averaged to form an overall score of social skills. In previous studies of Chinese students (Ma, 2005), this scale has demonstrated good internal consistency ( $\alpha = .88$ ). For the present study, the measure's Cronbach alpha coefficient was .91.

## 3.4. Statistical analysis

To test whether self-disclosure on SNS had an effect on social capital, structural equation modeling was used. All calculations were completed in MPLUS 6.1. All missing values were estimated in MPLUS using full information maximum likelihood (FIML) during the analysis. MPLUS tested the significance of indirect effects in the model, which is equivalent to the Sobel test. The confounding effects of social skills were effectively controlled by adding 2 paths in the model originating from social skills to self-disclosure and social capital (see Fig. 1).

## 4. Results

### 4.1. Direct effects of self-disclosure on social capital

Pearson correlations among measures, reported in Table 1, indicated that rates of self-disclosure were not significantly and directly related to bonding social capital but were significantly associated with bridging social capital. This provided only partial support to H1, which anticipated a direct effect of self-disclosure on both types of social capital. Social skills correlated significantly with all other variables, confirming its role as a potential confounding variable that needed to be controlled in tests of our conceptual model.

### 4.2. Positive feedback as a mediator between self-disclosure and bridging capital

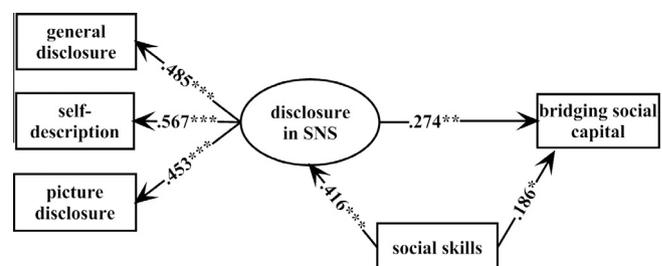
Two separate models were estimated for the effect of self-disclosure on bridging capital. Both adjusted for the effects of social skills on other variables in the model. In the direct effects model, self-disclosure measures were directly associated with bridging social capital; the standardized path coefficient ( $\beta$ ) was .274 ( $p < .01$ ), and  $R^2$  was .075. All dimensions of self-disclosure (general, picture, and self-description) were significantly correlated with bridging social capital ( $\beta = .16$ ,  $p < .001$ ;  $\beta = .12$ ,  $p < .001$ ;  $\beta = .24$ ,  $p < .001$ ). This direct effects model (see Fig. 2) provided a good fit to the data,  $\chi^2(4) = 2.721$ ,  $p > .05$ , RMSEA = .00, CFI = 1.000, TLI = 1.039. These findings were consistent with H1 and H3 in that the direct effect of self-disclosure on bridging capital (H1) remained significant after controlling for social skills (H3).

In a second model, which included positive feedback as a mediating variable, the direct effect of self-disclosure in SNS on bridging social capital was greatly reduced and became non-significant ( $\beta = .156$ ,  $p > .05$ ). The indirect effect of self-disclosure on bridging social capital by way of positive feedback was also not significant ( $\beta = .118$ ,  $p = .08$ ). These two results indicated that, contrary to the result proposed in H2, positive feedback did not significantly mediate the effect of self-disclosure on bridging social capital.

**Table 1**  
Correlations among study variables.

	1	2	3	4	5	6
1 General disclosure	1					
2 Picture disclosure	.21**	1				
3 Self-description	.26**	.29**	1			
4 Positive feedback	.17**	.33**	.45**	1		
5 Bonding capital	.02	-.01	.10	.24**	1	
6 Bridging capital	.16**	.12**	.24**	.33**	.39**	1
7 Social skills	.24**	.17**	.23**	.19**	.20**	.30**

\*\*  $p < .01$ .



**Fig. 2.** The effect of self-disclosure in SNS on bridging social capital. Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

4.3. Positive feedback as a mediator between self-disclosure and bridging capital

Because self-disclosure measures were not significantly correlated with bonding capital, there was no need to test the direct effects model (i.e., H1 was not supported). The mediation model featured a significant indirect path from self-disclosure in SNS through positive feedback to bonding social capital,  $\beta = .124$ ,  $p < .01$ . This model provided a good fit to the data,  $\chi^2(8) = 12.408$ ,  $p > .05$ , RMSEA = .046, CFI = .966, TLI = .937, thus supporting H2 and H3. However, it explained a very modest percentage of variance in bonding capital (1.5%).

4.4. Impact of social skills on associations between self-disclosure and social capital

The third hypothesis proposed social skill as an important confounding variable, which was supported across both bridging and bonding capital models. The path from social skills to self-disclosure was positively significant in both Fig. 2 ( $\beta = .42$ ,  $p < .001$ ) and Fig. 3 ( $\beta = .35$ ,  $p < .001$ ). The path from social skills to bonding capital ( $\beta = .19$ ,  $p < .001$ ) and bridging capital ( $\beta = .16$ ,  $p < .01$ ) were also significant. Comparison of the effect sizes showed that self-disclosure had much larger effect on bridging social capital than social skills. Self-disclosure explained  $(.274 \times .274 = .075)$  7.5% variance of bridging capital, which was more than twice the effect size of social skills  $(.189 \times .189 = .035 = 3.5\%)$ . With regard to bonding capital, the self-disclosure effect size  $(.635 \times .196 = .12$ ,  $.12 \times .12 = .015 = 1.5\%)$  was about 60% the effect size of social skills (2.4%).

4.5. Possible moderating role of gender

Correlational analyses run separately for males and females indicated that gender was a factor in rates of self-disclosure on SNS (see Table 2). Boys disclosed more general information than

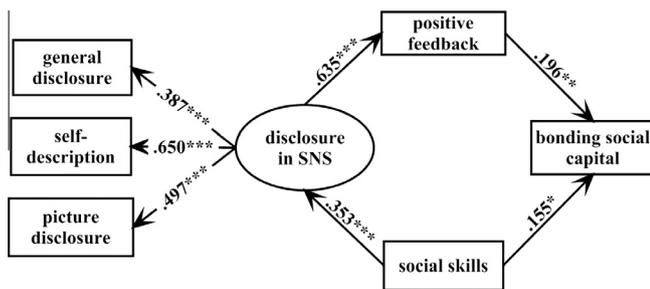


Fig. 3. The effect of self-disclosure in SNS on bonding social capital. Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 2 Measure correlations across gender.

	1	2	3	4	5	6	7
1 General disclosure	1	.15	.19	.01	0	.03	.29*
2 Picture disclosure	.27**	1	.32*	.22	-.07	.23	.09
3 Self-description	.28**	.29**	1	.45**	.16	.42**	.22
4 Positive feedback	.24**	.38**	.43**	1	.35**	.41**	.06
5 Bonding capital	0	.02	.06	.18*	1	.48**	.18
6 Bridging capital	.17*	.12	.18*	.32**	.36**	1	.32**
7 Social skills	.21**	.21**	.22*	.23**	.19*	.28**	1

The matrix above the diagonal is for male, below the diagonal is for female.

\*  $p < .05$ .  
\*\*  $p < .01$ .

girls did ( $t = 2.92$ ,  $p < .01$ ). As with the sample as a whole, self-disclosure was not significantly and directly related to bonding social capital for either gender. Bridging social capital was significantly associated with both general information and self-descriptive disclosure among females, but only with self-descriptive disclosure among males.

Two models were fitted to examine possible gender differences in associations between self-disclosure on SNS and bridging social capital. The first constrained the path coefficients from self-disclosure to social capital to be equal across gender, whereas the second was fitted with that path parameter estimated freely. The fit of the second, unconstrained model— $\chi^2(13) = 22.617$ ,  $p = .047$ , AIC = 4256.321, BIC = 4352.563—was not a significant improvement over the fit of the first model,  $\chi^2(12) = 21.259$ ,  $p = 0.047$ , AIC = 4256.963, BIC = 4356.770. Here,  $\Delta\chi^2(1) = 1.358 < 3.84 = \chi^2(1)$ . The second model with the path from disclosure to bridging capital was not significantly better, indicating that there was not a significant gender difference in the association between self-disclosure and bridging social capital.

In similar analyses performed on data regarding bonding social capital, two path parameters from self-disclosure to bonding capital via positive feedback were fixed to be equal in the constrained model, and relaxed to be freely estimated in the second model. The fit of the unconstrained model— $\chi^2(22) = 32.189$ ,  $p = .074$ , AIC = 4542.698, BIC = 4656.763—was not a significant improvement on the fit of the first, constrained model,  $\chi^2(20) = 28.869$ ,  $p = 0.090$ , AIC = 4543.379, BIC = 4664.572,  $\Delta\chi^2(2) = 3.32 < 5.99 = \chi^2(2)$ . Thus, the path coefficient from self-disclosure through positive feedback to bonding social capital was equal across gender.

5. Discussion

Initially conceived as a mechanism for helping college students become acquainted with other students on their campus, SNS have grown to become an almost essential component of adolescents' social interaction patterns. They are ideally suited for helping young people to expand their social networks while retaining existing interpersonal ties when moving to a new social environment, such as college. One would therefore expect that SNS use would be related to building up and using social capital.

Whereas other researchers have documented the connection between social capital and temporal or psychological investment in SNS (Ellison et al., 2007; Greenhow & Burton, 2011; Steinfield et al., 2008), our study points to a specific activity—self-disclosure—that seems to foster the maintenance or enhancement of social capital. More specifically, the findings indicate that building up bridging social capital is aided by self-disclosure on one's SNS. Individuals accrue bridging social capital by acquiring relationships with a diverse array of people (Putnam, 2001). These relationships need not be intimate, but do require knowledge of basic characteristics of the partner so that one person understands the circumstances under which the partner might provide needed resources. SNS are well suited to this task. They give individuals a venue for easily locating and maintaining relationships with large numbers of people who can vary considerably in backgrounds, interests, and locations. Revealing key factors about oneself provides peers with sufficient information to initiate or respond to a 'friend' request. It may also help to propel a relationship to a level at which the college student feels comfortable seeking advice or assistance, or at least feels that advice or assistance could be solicited if needed. This would account for the direct relationship we observed between self-disclosure and bridging social capital. Positive feedback from the SNS friend was not vital for the enhancement of bridging capital, perhaps because this form of social

capital does not rely as heavily on close, caring relationships as bonding capital does.

The situation was different for bonding social capital. Here, as we hypothesized, self-disclosure was associated with social capital only indirectly, through the level of positive feedback that late adolescents felt they received from SNS friends. This type of capital is predicated on closer, more intimate relationships that feature the capacity to provide emotional rather than primarily instrumental support. When self-disclosure prompts positive feedback, it affirms this closer bond and gives students confidence that there are others whom they could count on for deeper social support.

Connections between self-disclosure on SNS and the two types of social capital varied not only in whether or not they were mediated by positive feedback but also in their magnitude. The direct connection between self-disclosure and bridging capital appeared to be stronger than the indirect connection between self-disclosure and bonding social capital. This could reflect the type of disclosure that is typical on social networking sites. Most college students post basic information and superficial details of their lives on SNS more often than deeper thoughts, controversial opinions, or more intimate details (Madden et al., 2013). In fact, norms among college students discourage disclosures on SNS that are too intimate or negative in tone (Bazarova, 2012; Qui et al., 2012). Basic information seems central to building bridging relationships, whereas bonding social capital depends on deeper disclosure that is more likely to occur in face-to-face encounters than online.

Study results also seemed to support the rich get richer hypothesis in that college students reporting higher social skills also tended to disclose more about themselves on SNS, reap more positive feedback from this disclosure, and report higher levels of social capital. There seems to be growing consensus that more socially adept adolescents take greater advantage of the opportunities that SNS provide to enhance their social relationships (Ross et al., 2009). Yet, associations between self-disclosure and social capital remained significant even controlling for social skill level. This suggests that self-disclosure on SNS is beneficial even for shy or less socially adept college freshmen. This is an important insight, given the challenges to social adjustment that such adolescents often face when entering college. Ellison et al. (2011) argue that Facebook use may assist in overcoming barriers faced by students who have low satisfaction and low self-esteem. It effectively facilitates the ability to receive emotional support from strong and weak ties and supports acts of “social grooming” (Tufekci, 2008), which is important in light of a shy person’s lack of social support offline.

Gender differences, which have been equivocal in past research on SNS, did not emerge as a consistent, significant factor in our study findings. Consistent with Special and Li-Barber’s (2012) study of college undergraduates, we found that males disclosed more basic information than females, but the genders did not differ in amount of more personal or intimate information posted on SNS. Moreover, the pattern of linkages between self-disclosure and social capital did not differ by gender. This affirms the importance of differentiating degree of disclosure on SNS from the impact of disclosure on outcomes such as accrual of social capital.

## 6. Conclusions

### 6.1. Theoretical and practical implications

Study findings extend social capital theory (Coleman, 1988; Putnam, 2001) by highlighting the role that self-disclosure plays in a virtual environment to initiate or maintain meaningful connections to others. Building on the distinction that others have drawn between bridging and bonding social capital (Putnam,

2001), our study points to differential processes by which SNS activity can lead to enhancement of these two types of social capital. The expansion of basic social ties (e.g., increase in number of SNS friends) that follows from posting information about self on SNS may be sufficient to enhance college students’ sense of bridging capital, but self-disclosure on SNS is not enough to assure students of bonding capital. This deeper connection to others requires affirmation in the virtual environment (e.g., positive feedback on SNS posts) that the information one discloses about self is positively received.

Our study situates these theoretical insights in a developmental context that emphasizes the need to attend to social capital. The transition to a residential college setting disrupts existing social networks and thereby threatens the level of bridging and bonding social capital that young people may sense that they have. We demonstrate an effective way in which individuals in this transitional environment can reach out to others to enhance their sense of social capital, and we emphasize the sorts of virtual interactions (through self-disclosure and others’ responses to this disclosure) that are instrumental in building social capital at this developmental juncture.

Equally important is the affirmation from study results that the connection between self-disclosure and social capital, while affected by young people’s level of social skills, is not wholly explained by this other variable. Social skills may enhance one’s comfort in posting information about self in the relatively public venue of an SNS and feeling more broadly supported by significant others, but there is something more to the process by which self-disclosure is linked to social capital.

From a practical perspective, the study findings suggest that the time young people spend creating content on SNS and responding to the content disclosed by peers on their SNS pages may be well spent, especially during transitions such as college entry, which precipitate a rebuilding of social networks. It would be wise for individuals not to intervene in this process by, for example, exaggerating the dangers of self-disclosure on the Internet or encouraging rigid controls over who has access to one’s SNS page. Exercising due caution about postings and privacy may be sensible, but discouraging SNS activity may actually undermine college students’ social adjustment.

### 6.2. Limitations

In interpreting study findings it is important to bear in mind that all participants were students in colleges or universities in Beijing, China. Although they may constitute a good cross-section of students in higher education in this country, findings may not generalize to late adolescents in other nations. The causal assumptions that we have made, although supported by our model testing, must be considered tentative until confirmed by longitudinal studies. Longer-term studies also can indicate whether the impact of self-disclosure on SNS extends beyond students’ first year in college. Finally, because all measures were self-reported, it is possible that method variance played a role in the findings observed.

### 6.3. Future studies

The current study identified self-disclosure and the positive responses it engenders as the keys for gaining the benefits of social capital as a result of SNS interactions. Initial analyses suggested that this is a more likely causal arrangement than its inverse, but longitudinal studies are needed to confirm that the relationship is not bidirectional. Future research could consider the potential risks of extensive or excessive self-disclosure on SNS. Is there a trade-off between sharing information to build social capital and divulging information that could damage future professional or

informal relationships? Investigators also should consider whether self-disclosure is as instrumental in improving social capital beyond the initial year of college when relationship seeking is especially salient. By looking directly at SNS postings and others' responses to such postings, future studies also could obviate problems associated with reliance on individuals to accurately report their SNS activity (although IRBs often object to direct examination of SNS content). Finally, the tools available to college students to connect to peers continue to expand. Whereas SNS seem to continue to play a vital role in late adolescents' social interactions, investigators must attend to other platforms (e.g., Twitter, Pinterest, Snapchat) to get a full understanding of how self-disclosure in the virtual environment fosters social capital and adjustment among college students.

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