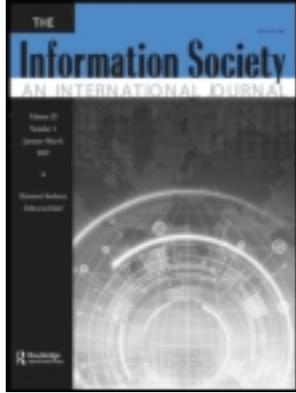


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Teenagers' Experiences With Social Network Sites: Relationships to Bridging and Bonding Social Capital

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Teenagers' Experiences With Social Network Sites: Relationships to Bridging and Bonding Social Capital

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Many studies have examined the relationship between social network sites (SNSs) and the development of social capital. However, most studies to date have only considered college and adult populations. This study examines the patterns of SNS use in an urban, teenage sample in the United States. It tests the hypothesis that use of SNSs is related to higher levels of social capital. The results show that youth who use Facebook and Myspace report higher social capital in both their school and online relationships. In addition, the analysis suggests that distinct modes of SNS experiences are differentially related to bridging and bonding social capital. Time spent in SNSs is related to bridging capital, while positive or negative experiences are related to bonding capital. The study offers new insights into how youth experience SNSs and the relationship of that experience with their connection to the world.

Keywords adolescents, social capital, social network sites, teenagers, youth populations

The concept of social capital is multifaceted and complex. Social capital theory suggests that one's relationships accrue benefits (Portes 1998). However, theorists and researchers employ the term in a myriad of ways. For example, Bourdieu takes a broad, cultural view and sees social capital as membership in particular social classes or groups. One has social capital because one is part of a social group (Bourdieu 1986). Social network analysts see social capital within the structure of relationships (Lin 1999). For example, the theory of structural holes suggests that individuals who act as a bridge between two otherwise disconnected groups have more influence and power (Burt 2004). People must go through that bridge person if

they want to access the resources of the other group. Here this person has more social capital because of a beneficial structural position in the network.

Other theorists focus on the nature of the relationship itself. Coleman highlights that tightly knit groups often have rules and norms (Coleman 1990). For example, a person who receives a favor from another in a group is likely to give a favor in return. Therefore, characteristics of relationships—such as reciprocity or trust—imply the amount and quality of social capital. Researchers, following Putnam, characterize relationships as bridging and bonding (Putnam 2000). Bridging relationships rise among acquaintances who know each other but are not deeply invested in the relationship. Researchers have found that bridging relationships bring benefits such as new information and connections to the individuals so related and also to the larger community (Kavanaugh et al. 2005; Putnam 2000). Bonding ties arise out of close-knit relationships. They are likely to lead to benefits such as social and emotional support and access to scarce resources.

Individuals develop relationships in both online and offline settings, and increasingly the boundaries between these two spaces are blurred (Xie 2007; 2008). One platform that blurs these spaces is the social network site (SNS). Research suggests that these platforms may help users cultivate social capital in both online and offline relationships (Donath and boyd 2004; Ellison, Steinfield, and Lampe 2007). However, prior studies of SNSs and social capital have typically examined adult populations (Ellison, Steinfield, and Lampe 2007; Valenzuela, Park, and Kee 2009). In this article, I present a study that explores teenagers' use of social network sites and how their experiences relate to bridging and bonding social capital.

SOCIAL NETWORK SITES AND SOCIAL CAPITAL

The activities seen in SNS communities can be viewed as social grooming (Tufekci 2008). In offline settings, people groom their relationships through behaviors such as small

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talk and participation in social life. In an online setting such as Facebook, members participate in social grooming by disclosing information about themselves on their profiles or commenting on friends' pages. Status updates, wall posts, and pictures on a profile describe the daily happenings of an individual to his or her network. In addition, when friends write to each other, play games, or comment on each other's profiles, they participate in social grooming behaviors. Behaviors in SNSs, such as self-disclosure and networked communication, lend themselves quite naturally to relationship building. For example, one early experiment examined college students' feelings toward an academic course based on their viewing of the instructor's Facebook profile. The researchers found that college students reported more motivation to take a class, and anticipated a more positive classroom climate, when they viewed a professor's Facebook profile that was high in self-disclosure (Mazer, Murphy, and Simonds 2007).

Social network sites facilitate relationship development and thus offer a natural link to social capital. Researchers have consistently found that using social network sites is related to higher social capital (Burke, Kraut, and Marlow 2011; Ellison, Steinfield, and Lampe 2007; Valenzuela, Park, and Kee 2009). Ellison, Steinfield, and Lampe (2007) surveyed a sample of college students and found that their intensity of Facebook use is positively related to both bridging and bonding relationships. In a similar study of Texas students, researchers also found that Facebook use was positively associated with characteristics of social capital. Students who used Facebook more often reported higher levels of trust, and participated more in civic and volunteer groups (Valenzuela, Park, and Kee 2009). Thus, we see that the existing literature on SNSs and social capital suggests that students who participate in online communities also report higher connection to their campus relationships.

While research that has examined the relationship between SNSs and social capital offers consistent evidence of a positive relationship, most studies examine college-age or adult populations (Ellison, Steinfield, and Lampe 2007; Valenzuela, Park, and Kee 2009). An equally plausible hypothesis is that high school students are also more connected to their community when they participate in social network sites. This hypothesis has substantial practical implications as parents, educators, and adults wrestle with whether teenage use of social media offers positive or detrimental outcomes (Ahn, 2011). Much of the media and education discussion has focused on the negative aspects of SNSs, particularly the ways in which youths can use these tools to bully their peers (Hoffman 2010). However, in this study I examine a potentially positive outcome, that adolescents who use social network sites will also report higher levels of social capital (both bonding and bridging). The first hypothesis in this study is:

H1: Teenagers who use social network sites will report higher levels of bonding social capital compared to peers who do not.

Early research on youths and SNSs suggests that teenagers primarily use social network sites to interact with known friends (boyd 2008). It is likely that there is considerable overlap between teenagers' friends in their neighborhoods and high schools, and their SNS networks. Therefore, experiences with SNSs may in fact be correlated to teenage youths feeling deeper connection with their peers at school or home.

While teenagers might communicate primarily with known friends in SNSs, they are also exposed to the larger world through their interactions. As members share links, ideas, and media, they are connected to a broad array of information. As previous scholars have hypothesized (Donath and boyd 2004; Williams 2006), it is possible that teenagers' use of SNSs also helps them feel connected to the broader world beyond their school and home. Such relationships are related to the concept of bridging social capital. Subsequently, the second hypothesis in this study proposes:

H2: Teenagers who use social network sites will report higher levels of bridging social capital compared to peers who do not.

Finally, this study also extends the literature by considering types of SNS experiences. Prior research on SNSs and social capital has considered how intensity of use was related to bridging and bonding relationships. For example, the more individuals use Facebook, the more social capital they report (Ellison, Steinfield, and Lampe 2007). Researchers have also begun to differentiate different types of use along with intensity. For example, studies have found that individuals who receive more direct messages from friends in Facebook report higher bridging social capital (Burke, Kraut, and Marlow 2011). However, beyond intensity, youths also have other experiences with social network sites. For example, initial studies of adolescent users of SNSs find that the valence of comments peers leave on a teenager's profile is correlated to their self-esteem (Valkenburg, Peter, and Schouten 2006). Receiving positive support on one's profile or through SNS interactions is also related to psychosocial outcomes such as happiness. It is also plausible that negative experiences would be related to lower feelings of connection with others. Therefore, in this study I compare both the intensity of SNS use and the valence of experiences one has in these online communities. The third hypothesis proposes that valence is a critical part of youth SNS experiences:

H3: Youths who report more positive experiences in social network sites will also report more bonding and bridging social capital.

METHODOLOGY

To examine the relationship between teenagers' experiences with SNSs and their social capital, I conducted a survey in two urban high school districts in the United States during the autumn of 2009. A Web-based survey was developed that asked several questions. The participants were asked to indicate whether they were members of Facebook and/or Myspace. The survey also collected measures of self-esteem and social capital (outlined in detail later). To recruit participants, I visited four high schools and made presentations in classrooms and distributed flyers. The teenagers also received consent forms, which their parents were required to sign before they could participate in the study.

The survey data was merged with public records from the school districts. Each teenager had a unique school identification (ID) number that was given to him or her by the district administration. Students who had returned the signed consent forms were entered into a database connected to the Web-based survey. They were then able to complete the survey by logging in with their district ID number. The identification numbers also corresponded to data that the school districts provided

from their administrative records. These records included key background variables including gender, race, age, prior academic achievement, and socioeconomic status. The administrative records were then merged with the survey data using the school ID numbers.

The total student population in the four high schools was approximately 8,900. Of this population universe, 852 youths returned their consent forms and participated in the study. It is important to note that this is a convenience sample and the results presented here are not to be considered representative of the United States or youths in all contexts. Table 1, given later, outlines the descriptive statistics of the sample compared to the overall characteristics of the participating school districts (from public data). The characteristics of the participants differed slightly in comparison with the overall makeup of the high schools. Fewer males participated in the study (48 percent) than the overall district population (52 percent males). This might be due to the fact that female youths tend to be members of SNSs more often than their male peers.

The academic achievement of the sample participants, as measured by the state standardized tests, was similar to the overall district average. In this state, students who

TABLE 1
Descriptive statistics of variables and sample demographics

	Mean or% of sample	Standard deviation	Minimum–maximum	Characteristics of all high school students in the districts
School social capital	14.62	3.22	5–20	—
Online social capital	13.46	3.89	5–20	—
Member of:				
Only Facebook (FB)	21%			—
Only Myspace (MS)	26%			—
Both FB and MS	38%			—
Neither	15%			—
Male	48%			52%
Time on site	2.14	1.13	1–5	—
Valence	4.27	1.07	1–5	—
Self-esteem	28.33	4.86	10–36	—
Age	15.36	1.41	12–18	—
GPA	3.04	0.85	0–4	—
ELA score	373.43	57.36	202–576	356
Ethnicity:				
Asian	17%			11%
Black	3%			3%
Hispanic	34%			46%
Native American	<1%			<1%
White	46%			39%
Free–reduced lunch	27%			33%

Note. GPA, grade-point average; ELA score, standardized English test score (given to all students in the state); Free–reduced lunch, indicator of socioeconomic status.

scored between 350 and 395 are categorized as “proficient” (versus other categories such as “below proficient” and “advanced”). The study sample’s average test score was 373, compared to 356 in the overall district. Thus, teenagers in this sample were slightly higher academic achievers, but fell within the proficient category in their state. Finally, the ethnic makeup differed in a few areas. Asian youths were slightly overrepresented in this sample (17 percent of sample, 11 percent in the overall school districts). White teenagers were also overrepresented (46 percent in sample, 39 percent in the districts). Hispanic youths were underrepresented (34 percent in sample, 46 percent in the districts). Finally, Native American and Black participants were similar in proportion to the overall population in the districts.

Finally, I also take into account missing data patterns. There were approximately 620 cases with complete data. An examination of missing data suggested that data were not missing completely at random (MCAR), and therefore using a list-wise deletion strategy would lead to biased estimates (Rubin 1996). Given these conditions, I utilized multiple imputation using the *ice* program in STATA to impute missing values in the data set (Royston 2004; Rubin 1996).

Measures and Variables

The dependent variable in this study is social capital. I utilized the Internet Social Capital Scales (ISCS) to derive two measures for social capital (Williams 2006). Five items were modified from the scale that ask about bonding social capital. I included the words “high school” to prime participants to consider their relationships with their school community. The items were: (1) There are people in my high school I trust to help solve my problems. (2) There is someone in my high school I can turn to for advice about making very important decisions. (3) There is no one in my high school I feel comfortable talking to about my personal problems (reverse coded). (4) When I feel lonely, there are several people in my high school I can talk to. (5) If I needed an emergency loan of \$500, I know someone in school I can turn to. Students responded on a 1–4 scale that ranged from strongly disagree, to somewhat disagree, somewhat agree, and strongly agree. The Cronbach’s alpha for this bonding social capital scale was 0.717.

To measure bridging social capital, I utilized five items that ask about bridging capital from the ISCS. These items were: (1) Interacting with people online makes me interested in things that happen outside of my town. (2) Interacting with people online makes me want to try new things. (3) Talking with people online makes me curious about other places in the world. (4) Talking with people online makes me feel like part of a larger community. (5) Interacting with people online makes me feel connected to

the bigger picture. For these items, students also responded on a 1–4 scale. Cronbach’s alpha for this scale was 0.888. Note that the ISCS scales consider the interaction between place (offline vs. online) and social capital. In this study I have considered bonding social capital, in the context of school-based relationships, and bridging social capital, in the context of online participation. Future studies could also consider bridging relationships in school and bonding relationships in online contexts.

Finally, I included self-esteem (SE) as a control variable in the analyses. The SE variable consisted of items from the Rosenberg Self-Esteem scale that has been employed in previous studies of SNSs and social capital (i.e., Ellison, Steinfield, and Lampe 2007). I used nine items from the scale that ask participants various questions about how they feel about themselves and their capabilities. Cronbach’s alpha for the self-esteem scale was 0.843.

Hypotheses 1 and 2 suggest that youths who use SNSs more often will report higher levels of social capital. To capture “use” I collected data on several variables in the survey. First, youths indicated whether they were members of Facebook and/or Myspace. I coded these variables to indicate whether participants were members of only Facebook (*facebook*), only Myspace (*myspace*), or both online communities (*bothsns*). Each individual was only coded into one of these categories. The reference group was youth who do not participate in any of these SNSs. The survey also included a question that tapped into the intensity of SNS use. Participants indicated how much time they spent on social network sites on each visit (time on site). The variable ranges from 1 (less than 10 minutes), to 2 (11–31 minutes), 3 (31–60 minutes), 4 (1–2 hours), and 5 (over 2 hours). The question was adapted from a previous study of Dutch youth and SNSs (Valkenburg, Peter, and Schouten 2006).

Hypothesis 3 examines whether having positive or negative SNS experiences relates to social capital (valence). To capture this element, I utilized another question used in previous studies (Valkenburg, Peter, and Schouten, 2006) that ask youths whether the comments they receive on their profile were always negative (1), sometimes negative (2), neither negative nor positive (3), sometimes positive (4), or always positive (5). In addition to the independent variables of interest, the regression models used in this analysis also include various demographic control variables. These control variables are the student’s age, prior grade point average in school (*gpa*), prior English language score on their state’s standardized test (*ela*), their ethnicity, and their free–reduced lunch status (*ses*). Ethnicity and socioeconomic status (*ses*) are categorical variables. For ethnicity, White/Caucasian is the reference group. For the socioeconomic indicator, free–reduced lunch status is a common measure collected by U.S. public schools. This variable indicates whether a student falls below a specified

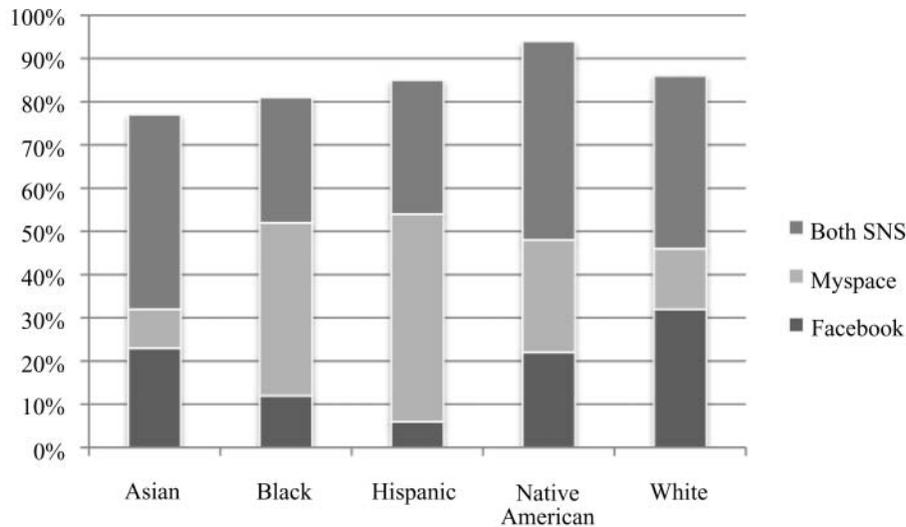


FIG. 1. Breakdown of ethnicity by SNS membership.

poverty line and is eligible to receive free or reduced-price lunch at school. The measure is a typical indicator of socioeconomic status (ses) for youths. Descriptive statistics for all dependent and independent variables are shown in Table 1.

Regression Analysis

To examine the various hypotheses, I utilized ordinary least squares (OLS) regression models. Two models were examined, with bonding social capital as the first dependent variable (DV) and bridging social capital as the second DV. The level of social capital is determined by: (1) whether a teenager was a member of Facebook, Myspace, or both SNSs, (2) how much time the teenager spent on an SNS (Time on site), (3) whether their experiences in SNSs were generally positive or negative (Valence), (4) the teenager's level of self esteem, and (5) a vector of control variables ($x'A$) that include age, prior grade-point average, prior academic achievement on a public standardized test, gender, ethnicity, and socioeconomic status. The resulting model is:

$$y = \alpha + \beta_{\text{Facebook}} + \beta_{\text{Myspace}} + \beta_{\text{bothSNSs}} + \beta_{\text{Time on site}} + \beta_{\text{Valence}} + \beta_{\text{Self esteem}} + x'A + \varepsilon$$

For each DV, I also compared the full model with a base model that included only the control variables (demographics and self esteem). For bonding social capital, the r -squared of the base model was 0.10. After including the SNS membership, time on site, and valence variables, the r -squared of the full model increased to 0.15. For bridging social capital, the r -squared for the base model

was 0.01. The inclusion of the SNS variables increased the r -squared to 0.05. The model comparisons suggest that online SNS experiences increase the ability to predict bonding and bridging social capital.

FINDINGS

I first present several descriptive analyses that illustrate the usage patterns of the urban teenagers surveyed in this study. First, one can notice various patterns of youth SNS membership and race in Figure 1. Within all ethnic groupings, approximately 70–90 percent of teenagers in this sample are SNS users. Such numbers are similar to recent national averages that find about 73 percent of youths are connected to SNSs (Lenhart et al. 2010). When examining each ethnic group, one can also see that young people cluster into different online communities. A sizable percentage of youths of each ethnicity are members of both Facebook and Myspace. However, a substantial percentage of Black and Hispanic students only use Myspace, while a large percentage of Asian and White students only use Facebook. Such findings coalesce with earlier studies that find that college students cluster into different SNS communities based on characteristics such as race (Hargittai 2007).

Beyond ethnicity, there may be other self-selection processes that cluster similar youths together into online communities. As Figure 2 shows, the makeup of different SNS communities was clustered by prior grade-point average and performance on standardized tests. The highest achieving youths in this sample were members of Facebook and the lowest achieving teenagers were Myspace users. The adolescents who were members of both social network sites exhibited an average academic achievement that closely matched the overall sample mean. The

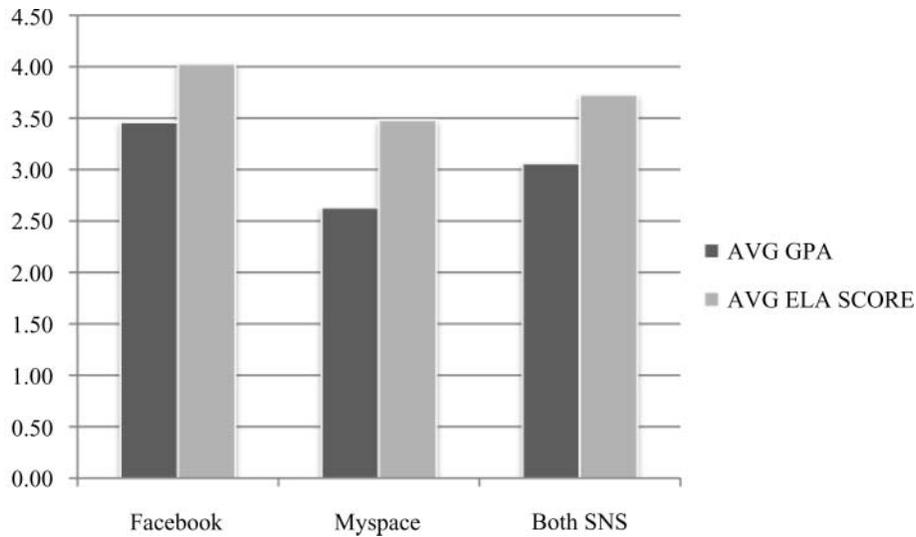


FIG. 2. Average grade-point average (GPA) and English language arts (ELA) scores by SNS membership. ELA score is performance on a public English language arts standardized test. The test scale is in the hundreds; thus, a 4.0 in the figure corresponds to a score of 400, and a 3.5 to 350. The GPA scale is the standard 1.0–4.0 scale.

descriptive findings from both Figures 1 and 2 suggest that a large percentage of young people in this sample are SNS members. However, the makeup of Facebook and Myspace differed significantly. Youths clustered into respective online communities around background characteristics such as race and academic achievement.

I also examined patterns of how much time teenagers spent in SNSs. Approximately 38 percent of youths reported that they log into their social network sites once per day, and 46 percent log in 2 to 4 times per day. About 10 percent log into SNSs 5 to 7 times per day and a very small percentage log in more than that. Beyond visiting SNSs, I also gathered how long the participants spent in these online communities (see Figure 3). The majority of

teenagers in this study spend 30 minutes or less in SNSs whenever they log in. These usage patterns suggest that SNSs are places where young people quickly check in on their networks. Nevertheless, nearly 13 percent of youths reported spending 1 or more hours each time they logged into their SNS, and almost 30 percent spend 30 minutes or more at each login. A key question to examine in this study is whether differences in time spent in social network communities are related to different types of social capital.

Finally, youth participation in particular SNSs may not be the salient factor in their social capital development. Instead, prior studies suggest that the nature of their experiences—whether teenagers have positive or

Time On Site

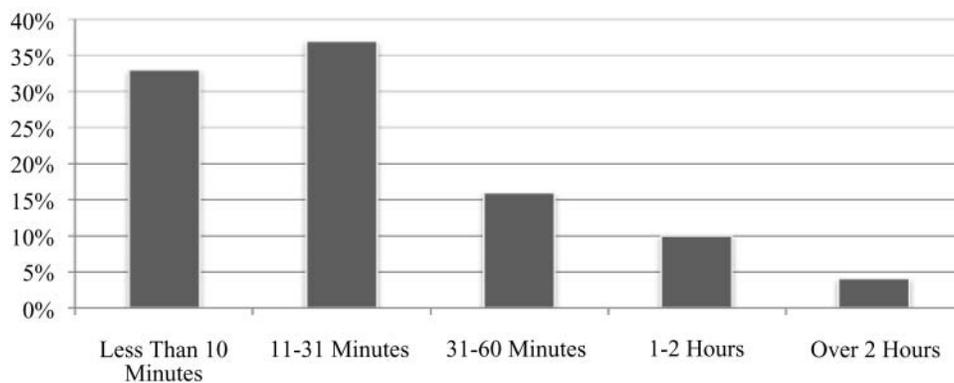


FIG. 3. Time spent on SNS at each login.

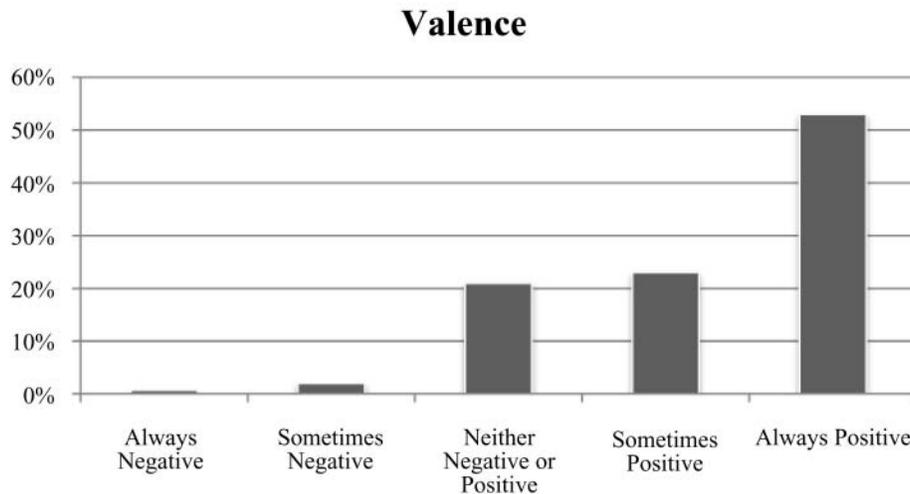


FIG. 4. Valence of comments youths receive on their profiles.

negative interactions with their network—is a strong influence on their relationship building (Valkenburg, Peter, and Schouten 2006). Figure 4 outlines the general valence of comments youths report receiving on their SNS profiles. Almost never (less than 3 percent of teenagers) did youths in this study report negative experiences in their online social networks. Approximately 53 percent reported that their experiences are always positive and 21 percent reported that their experience in SNSs was largely neutral. In general, youth reports of their online experiences in SNSs skew toward the positive end of the spectrum.

Do Teenage Experiences With SNSs Relate to Bonding Social Capital?

The first hypothesis in this study suggests that youth use of SNSs would relate to higher bonding social capital. The results of the regression analyses are presented in Table 2. Observing the results where bonding social capital is the dependent variable shows that teenagers who were members of Facebook and Myspace reported higher bonding social capital in their school community. However, the time that teenagers spend on their social network sites had no statistically significant relationship to bonding social capital. The results suggest a complex role of SNSs in the development of close relationships. For teenagers, being a member of a social network site is related to their bonding relationships with peers. However, frequent use of SNSs is not related to bonding social capital.

Such findings coalesce with recent studies that find no relationship between Facebook use and bonding social capital among adults and college students (Burke, Kraut, and Marlow 2011; Vitak, Ellison, and Steinfield 2011). It appears that intensity of SNS use is no longer

related to bonding relationships. Frequent consumption of friends' updates or receiving messages does not appear to promote close relationship development. However, other types of experiences may relate to the development of bonding relationships. A potential hypothesis for future research is that the features of a respective SNS facilitate

TABLE 2
Relationship between SNS experiences and social capital

	Bonding social capital	Bridging social capital
Facebook (FB)	0.12*	0.15*
Myspace (MS)	0.23*	0.09
Both SNSs	0.11*	0.18*
Time on site	0.06	0.12*
Valence	0.10*	0.05
Self-esteem (SE)	0.26*	-0.03
Control variables:		
Age	-0.04	0.02
GPA	0.14*	0.01
ELA score	0.00	-0.01
Male	-0.07	0.06
Asian	-0.03	0.09*
Black	-0.01	0.02
Hispanic	-0.07	0.11*
Native American	-0.04	-0.04
Free-reduced lunch	-0.02	-0.07
Adj. R-squared	0.15	0.05
<i>n</i>	852	852

Note. Asterisk indicates significant at $p < .05$. Standardized coefficients.

particular types of relationship building interactions. For example, prior studies of teenagers and Myspace find that the medium allows members to highly customize their profiles using skins and other add-on features (boyd 2008; Greenhow and Robelia 2009). These capabilities allow youths to define themselves, their identities, and their personalities in diverse ways. Conversely, Facebook offers a largely standardized and formal interface. Users cannot drastically alter the look and feel of their profiles. Perhaps different modes of SNS interaction—such as degrees of personalization—have different effects on teenage users. Creating spaces for youths to clearly communicate their identities may be a vital factor in creating expressive online communities that appeal to teenage users. This possibility remains open for future study.

Does Teenage Use of SNSs Relate to Bridging Social Capital?

The second hypothesis suggests that youth membership and use of SNSs is related to their bridging social capital. Examining the results where bridging social capital is the dependent variable, one can see mixed support for this hypothesis (Table 2). Teenage members of Facebook or both SNSs reported higher levels of bridging social capital compared to their peers who do not use any SNS. Contrary to the results for bonding social capital, the youth members of Myspace did not have statistically different levels of bridging social capital. In this sample of teenagers, Myspace appears to be a platform that is used to develop bonding, school-based relationships but not bridging connections to the broader online world. In addition, time on site was significantly related to bridging social capital, whereas there was no relationship to bonding social capital.

The results offer intriguing juxtapositions for the SNS relationship to bonding and bridging social capital. In this sample it appears that teenagers who used Facebook or both social network sites were more apt to feel connected to the broader online world. However, Myspace youths did not report a higher connection to the broader world. Were Facebook members more predisposed to building relationships online, while the MySpace youths were predominantly concerned with socializing with their known friends? Perhaps Facebook teenagers were members of multiple social groups online, while the Myspace members were largely clustered within their immediate high school community.

Time spent in SNSs also offer insight into social capital development. Spending time online was related to bridging social capital but had no influence on bonding relationships. Such results mirror recent studies that find intensity of Facebook interactions is related to bridging social capital but not bonding (Burke, Kraut,

and Marlow 2011). These contrasting relationships suggest that perhaps youths who spend longer time in social network sites also have more exposure to benefits related to weak ties (i.e., information). In general the results show that the relationship between spending time in SNSs and social capital is not a simple one. Teenagers who spend more time online in social network sites report higher connection to weak ties. However, the relationship between Facebook and Myspace membership and strong ties was also significant. Time spent online may instead be a proxy for different types of social activities. Using Facebook to share status updates and information and using Myspace to check in about where a party is being held this weekend offer different ways of developing bridging versus bonding relationships among teenagers.

Do Positive SNS Experiences Relate to Higher Social Capital?

The third hypothesis proposed that more positive interactions in SNS communities would relate to higher levels of social capital. The results (Table 2) offer mixed support for this expectation, but also highlight compelling relationships. As expected, positive experiences were significantly related to bonding social capital. This result is not surprising, particularly if teenagers' online and offline networks overlap significantly. Consider a situation where a teenager has a negative experience with a friend on Myspace and that friend is also a peer in school. It is highly likely that the negative SNS experience will also affect the two friends' relationship in the school context. Conversely, a negative interaction in school can also spill over into interactions in the social network site.

Nevertheless, valence of experiences in SNSs was not statistically related to bridging social capital. The results imply that valence of experiences is not a significant factor in developing weak connections to the broader world. This finding has compelling practical implications. Much of the adult discussion surrounding teenagers and SNSs has focused on the negative interactions that young people have in these online venues. Similarly, parents are often afraid that allowing their children access to online communities can expose them to harmful relationships. However, the results in this study suggest that youths have opportunities to create positive relationships—at least bridging social capital—through their participation in online social networks. Furthermore, the breadth of the Internet may provide a buffer for negative experiences. Youths might experience bullying or negative harassment in SNSs and school, but the Internet also affords teenagers the opportunity to find other communities that may be more supportive.

DISCUSSION

Social technologies such as SNSs now mediate a significant portion of teenage life. Youths use technology to keep in touch with friends, mediate romantic relationships, organize into social groups, support each other, and develop their own identities (Ito et al. 2010). Given the significant role that SNSs play in teenagers' lives, adults are understandably concerned whether these online communities have positive or negative effects on their development. These concerns are particularly heightened in the case of children and adolescents (Ahn 2011). Most of the conversation to date has focused on the detrimental effects of SNSs, particularly cyber-bullying. However, this study, which is one of the few that explicitly consider the implications of SNSs for minors (under 18 years of age), shows that in general youth participation in sites such as Facebook and Myspace is positively related to their social capital. While SNSs can be used as a hurtful tool, they may also help teenagers build bonding and bridging relationships.

This study also contributes to the broader scholarly literature on social capital and its relationship to social network sites. Previous studies of college and adult populations found that using SNSs is related to higher levels of bonding and bridging social capital (Ellison, Steinfield, and Lampe 2007; Steinfield et al. 2009; Steinfield, Ellison, and Lampe 2008; Valenzuela, Park, and Kee 2009). Here I show that teenage members also report higher social capital as they participate in popular SNS communities. However, the findings presented here also contribute to the emerging understanding of SNSs and social capital along several dimensions. First, previous studies have typically considered participation in only one SNS, such as Facebook. However, this analysis offers exploratory evidence that participating in different online communities may have differential relationships to social capital. For example, in this teenage sample, Myspace members reported higher bonding social capital while Facebook members reported more bridging social capital. Several questions for future research arise from such patterns. Perhaps the design of the SNS platform influences the types of relationship-building activities members enact with each other. Did Myspace, as a potentially more expressive medium, facilitate more bonding relationship development than the standardized interface of Facebook?

An equally plausible explanation is that the choice of SNSs and the social characteristics of one's network are uniquely interrelated. For example, higher achieving teenagers were more likely to use Facebook than Myspace in this sample. Facebook members also reported more bridging social capital than Myspace users. Did higher achieving youths, who were coincidentally more apt to use Facebook, use SNSs to connect with broader networks?

Perhaps they used online communities for more informational purposes while their Myspace peers chose an SNS that foregrounded topics such as music and popular entertainment? This line of thought suggests that patterns of self-selection, and the motivations of different networks of users, influence the outcomes one sees from SNS participation. Future studies that can tease apart the influence of SNS designs, user motivations, and self-selection would make a major contribution to our understanding of SNS effects.

Second, this article begins to highlight how different types of SNS experiences are distinctly related to bridging and bonding relationships. I find that among teenagers, spending more time in SNSs is related to bridging capital but not bonding relationships. Similarly, studies of Facebook and social capital now suggest that intensity of use or frequency of interaction predicts bridging capital, but does not predict bonding relationships (Burke, Kraut, and Marlow 2011; Ellison, Steinfield, and Lampe, 2011; Vitak, Ellison, and Steinfield 2011). When one spends more time in SNSs and interacts with wider networks, one may readily keep in touch with acquaintances rather than developing close relationships. The intensity of SNS use appears to influence bridging social capital development.

Although spending time in SNSs is not related to bonding social capital, it is plausible that certain activities and experiences do facilitate bonding relationships. Ellison, Steinfield, and Lampe (2011) find that social-information-seeking behaviors are significantly related to bonding social capital. Social-information-seeking behaviors include activities such as using Facebook to learn more about a classmate or a neighbor. Such findings suggest that uses of SNSs that blend online and offline settings may facilitate bonding social capital. If one interacts with a friend in Facebook and that interaction also blends with offline relationship building, bonding social capital may develop. This study contributes to this emerging understanding by also considering valence. The findings suggest having more positive interactions in SNSs is related to bonding social capital, but not to bridging relationships. In a teenage sample, where SNS friends may also be offline friends, the positive or negative experiences young people have with one another online may have substantial implications for their offline relationship development. This study contributes to the evolving literature that explores different SNS uses and experiences and their differential relationship to social capital.

Several limitations of this study also highlight the need for future research. The participant sample of this study offers particular strengths and weaknesses. This study breaks new ground by analyzing SNS use by minors (a group rarely considered in this literature) and employing a unique data set that merges survey data with public school records. However, the sample is clearly a convenience

sample where observed and unobserved characteristics of the participants may influence the findings. As such, all findings presented here are exploratory. This research needs to be followed by studies that explore SNSs and social capital with nationally representative youth samples.

In addition to sample limitations, the cross-sectional regression analyses cannot establish causality. While using Facebook and Myspace was correlated to higher bonding and bridging social capital, one cannot discern from this study whether participating in SNSs causes social capital development. For example, it is unclear in this analysis why Myspace membership is not related to bridging relationships but significantly predicts bonding relationships. As I note earlier in the discussion, it is quite plausible that youths choose different online communities based on social and cultural factors. The makeup of their networks and the kinds of experiences they have are likely related to social capital development. The social factors that lead teenagers to choose Myspace, and the interactions they have in Myspace versus Facebook, are likely reasons that teenagers developed more bonding relationships there. In order to enhance these understandings, future studies are needed that finely tease out the self-selection effects of different SNS communities and classify how the experiences of individuals differ in respective SNSs.

The research on whether SNS use is related to social capital has consistently shown a positive and significant relationship. This study also finds a positive relationship between SNS use and social capital. Across college, adult, and now youth populations, studies show that use of SNSs is related to the development of bridging relationships. Particular online behaviors are now shown to relate to bonding social capital (Ellison, Steinfield, and Lampe, 2011), and this study contributes by examining valence as a potential factor for the development of bonding relationships. Social network sites now mediate a variety of human interaction for a wide spectrum of individuals from early adolescents to adults. Future studies that integrate our understanding of how individuals choose their networks, interact with their networks, and experience these online communities can make a significant impact on how we understand the influence of SNSs on human relationships.

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