

Running Head: Social Networking Sites

Facebook Me: Collective Self-Esteem, Need to Belong, and Internet Self-Efficacy as Predictors of the iGeneration's Attitudes toward Social Networking Sites

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Abstract

Within the user-generated content sites, the role and growth of social networking sites has been undeniably overwhelming. Social networking sites (SNS) generate millions of dollars in revenue and advertising, yet little is known about why college students join and participate in these sites, which allow users to create their own content or space. This study adopts survey methodology to investigate the influence of college students' level of Internet self-efficacy, need to belong, need for cognition, and collective self-esteem on their attitude toward SNS. Internet self-efficacy, need to belong, and collective self-esteem all have positive effects on attitudes toward SNS. Furthermore, attitude toward SNS mediates the relationship between willingness to join SNS and (1) Internet self-efficacy and (2) need to belong, and the mediation is only partial between willingness to join and collective self-esteem. The author also draws managerial implications.

User-generated content sites provide platforms for information sharing, video sharing, photo sharing, and blogging. Often referred to as Web 2.0, these sites are expected to generate \$4.3 billion by 2011, more than four times what U.S. user-generated content sites generated in 2007 when more than 70 million U.S. Internet users created content online (eMarketer 2006). According to Nielsen/NetRatings, user-generated content sites constitute 5 out of top 10 fastest growing Web brands (Nielsen 2006). Among these user-generated content sites, the role and growth of social networking sites (SNS) has been undeniably overwhelming, especially among teens and young adults; more than 55% of teens online use social networks, and 48% of them visit SNS daily or more (Lenhart and Madden 2007). Despite these staggering statistics, very little research exists in this area, particularly to understand the antecedents of SNS usage (Wellman and Gulia 1999).

From basic bulletin boards and discussion forums to current-generation sites, such as Facebook, MySpace, YouTube, and Flickr, user-generated content sites come in many types and forms. Almost all user-generated content sites provide for some means by which users can connect and communicate with one another. Sites that offer a means of connection can be either business-related (e.g., LinkedIn) or social in nature (e.g., MySpace, Orkut, Facebook). Other networks combine both purposes (e.g., Ryze). Members can join user-generated content sites through either self-registration or an existing offline connection; a valid e-mail address is required in both cases (Murchu, Brestlin, and Decker 2004). As the role of SNS becomes increasingly prominent, usage of SNS grew from 5% of American households in 2005 to more than 10% in just one year (Lewis 2007). MySpace.com, for example, has grown from 16.2 million users in 2005 to 46 million in 2006 (a 183% increase), whereas Google, the second fastest growing Web brand, grew at only a 23% rate (Nielsen 2006). According to comScore

Media Metrix, MySpace.com hosted 21 million unique users who engaged in 169 million visits in the year 2005 (eMarketer 2006). Furthermore, advertising spending in just the social networking area is estimated to be \$865 million, with a projected value of \$2 billion by the year 2011, or almost 8.5% of total online spending (eMarketer 2006). In other words, the revenue generated by SNS should be almost half that of generated by all user-generated content sites in the near future.

Social networking sites provide a variety of services, such as users' own unique "space," as well as enabling them to share photos and videos, maintain blogs, and encourage group interactions through chat rooms, instant messaging (IM), and e-mail. Some networking sites even offer dating and matchmaking capabilities. Most research examining SNS deals with the consequences of joining social networking sites such as Friendster, Facebook, Classmates.com, or MySpace. For example, Valkenburg, Peter, and Schouten (2006) find that the frequency with which adolescents use the sites influences their social self-esteem and well-being. However, little research investigates the factors that influence SNS adoption, even though understanding SNS adoption is important because the revenue of most sites ties directly to the number of registered users.

Furthermore, the multibillion dollar SNS business category adopts two basic operating business models: subscription-based and advertising revenue-based. Many users are reluctant to pay subscription fees to register with a SNS, but advertisers seem to have no problem using SNS for targeted advertisements (Murchu, Breslin, and Decker 2004), especially if they are also interesting, relevant, and engaging. Advertising thus remains the primary source of revenue for most SNS. In 2007, the amount advertising money on SNS reached more than \$865 million, an increase of greater than 100% over the amount spent in 2006 (eMarketer 2006). Overall

advertising spending should increase to \$1.8 billion by 2010 and \$2.1 billion by 2011 (eMarketer 2006).

Social networking sites thus are changing advertising profoundly, not just by cutting into the traditional media budgets but also by revolutionizing the way advertisers reach consumers. Facebook CEO Mark Zuckerberg recently introduced what he called a “social ad,” designed to “help [advertisers] create some of the best ad campaigns [they’ve] ever built” (Klassen 2007). These social ads let Facebook users share their interactions with different brands throughout their peer network through news feeds and a program called Beacon (Klaassen 2007). Various advertisers, including Blockbuster, already have entered into partnerships with Facebook to create social ads that allow users to display the items they rent or buy, thereby implicitly or explicitly recommending the same to their friends. Facebook also lets local and national businesses and organizations, such as restaurants, bars, cafés, sports teams, artists, churches, health and fitness centers, and even politicians, create pages with which users can interact by adding them to their profile. They also can choose to share this information with friends in their network through news feeds.

These are just some of the ways in which SNS engage consumers by letting them create content and become the vanguards of different brands. Even more interesting, advertising on SNS generally is highly targeted and relevant. Because the information comes from a friend they perceive they can trust, users are more likely to pay attention to messages that come through the news feed. Advertisers are eager to help these users create conversations about brands and engage them on a level that is completely different from the one-way passive commercials of traditional media. Imagine the impact of a news feed reporting that a friend has just rented the latest movie from Blockbuster, followed by another news feed that provides the friend’s review

and rating for that movie. Although transferring the responsibility of creating brand messages to consumers initially might seem scary to brand managers, conversations about brands are relevant, interesting, engaging, and, thereby, effective in the long run.

Finally, whether a SNS adopts a revenue-based model or an advertising-based model, its success depends on the number of users that register with the site. The increased usage of SNS for advertising and business in turn makes it important to develop an understanding of users and their attitudes toward these sites. Therefore, this study details the role of individual-level factors, such as Internet self-efficacy, need for cognition, need to belong, and collective self-esteem, in influencing attitudes toward SNS and their adoption. Establishing a relationship among individual-level factors, brand attitudes, and behavioral intentions has significant importance for both academic scholars interested in theoretical research and professionals focused on adding value through user-generated content sites or using these sites as advertising vehicles. The following section reviews literature pertaining to the four individual-level factors and connects them together before investigating the exact nature of their influence on individuals' attitudes toward social networking sites.

Literature Review

Very few studies investigate the antecedents of social networking site adoption. Industry surveys indicate that people join and partake in social networking Web sites for a variety of reasons, such as to stay in touch with friends, make plans with friends, make new friends, or flirt with someone (Lenhart and Madden 2007). Other reasons may include feelings of affiliation and belonging, need for information, goal achievement, self-identity, values, and notions of accepted behavior (Ridings and Gefen 2004). These factors all relate to an individual user's need for cognition, need to belong, and level of collective self-esteem. Moreover, the successful adoption

of technologies depends on the perceived ease of use (Davis, Bagozzi, and Warshaw 1989), often conceptualized as Internet self-efficacy for Internet technologies (Daugherty, Eastin, and Gangadharbatla 2005; Eastin and LaRose 2000). Therefore, existing literature cites four factors—Internet self-efficacy, need for cognition, need to belong, and collective self-esteem—as influences on adoptions of technologies such as SNS. However, no study examines the effect of these factors on college students' attitudes toward SNS and their willingness to join such sites.

Internet Self-Efficacy

The Internet is a unique medium, in that people use it for a variety of purposes ranging from enjoyment to informational purposes to communication to buying and selling products (Kraut et al. 1997). These purposes get better served when users' Web usage levels and familiarity with the technology itself increases. That is, usage and adoption of Web technologies, such as SNS, depends on their "confidence in their ability to successfully understand, navigate, and evaluate content online" (Daugherty, Eastin, and Gangadharbatla 2005, p. 71), defined as Internet self-efficacy. The greater the ease with which a person can perform those tasks online, the greater should be his or her ability to join and participate in user-generated content sites. Also, as Internet self-efficacy (i.e., beliefs) increases, the attitudes toward the object of those beliefs also should increase (Ajzen and Sexton 1999), which suggests that persons with higher levels of Internet self-efficacy should have more favorable attitudes toward SNS. Self-efficacy refers to the belief "in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura 1997, p. 3). Although both these concepts are similar, in that they refer to future-oriented beliefs, the concept of self-efficacy "relates to expectations of control over behaviors rather than control over outcomes" (Bradley and Sparks 2002, p. 313). Therefore,

when considering behavior and behavioral intentions, such as the likelihood of adopting SNS, the impact of Internet self-efficacy should be more prominent.

Several studies have investigated the impact of self-efficacy on consumer decision making and behavior (Bearden, Hardesty, and Rose 2001; Bettman, Johnson, and Payne 1991; Fleming and Courtney 1984), but none directly examines the role of Internet self-efficacy on attitudes and behavior intentions. Literature on self-efficacy also suggests that the construct has different meanings, depending on the context. For example, it may refer to a person's trust in another, another person's ability to perform a task, a person's judgment about a future event, or even a belief in a person's own ability (i.e., self-confidence) (Barbalet 1998). The feeling of confidence in one's own ability has been characterized as essential for any behavior to take place, because this belief serves as a form of self-assurance (Dequech 2000). With regard to using the Internet, personal confidence in an ability to understand, navigate, and evaluate content successfully should alleviate doubts and suspicions when dealing with user-generated content sites. In other words, people's level of Internet self-efficacy should relate to their heightened beliefs about the networking sites they encounter online. These beliefs in turn reflect a consumer's perceived capability to use the Internet to accomplish tasks (Eastin and LaRose 2000). Then, "as Internet self-efficacy (i.e., beliefs) increases, then attitudes toward the object of those beliefs will also increase" (Ajzen and Sexton 1999, p. 118). Eastin (2002) provides supporting evidence in a laboratory experiment, in which he identifies subjects with high levels of self-efficacy and assigns them a technology-oriented task, such as the electronic transfer of money, to identify whether they are likely to adopt such an online service. Those participants with higher levels of self-efficacy emerge as more likely to adopt and perform such an action. Therefore, it is reasonable to assume that confidence in one's ability to use the Internet positively

influences the willingness to adopt and use SNS, because internal beliefs are associated with actual behavior.

Need for Cognition

Need for cognition refers to an “individual’s tendency to engage in and enjoy effortful cognitive endeavors” (Cacioppo, Petty, and Kao 1984, p. 1). People exhibit varying levels of this intrinsic characteristic, which can predict how people deal with tasks and social information (Cacioppo and Petty 1982; Cohen 1957). Extensive studies of need for cognition (NFC) link it to information-seeking behavior. For example, Carenini (2001) shows that NFC influences people’s willingness to use complex interface systems and applications. Literature pertaining to persuasive communication investigates NFC and documents its impact on attitudes and attitude formation; namely, it has a moderating effect on variables such as attitudes and purchase intentions. Zhang (1996) notes that humorous ads appear to be more effective in generating favorable attitudes and purchase intentions among people whose NFC is low rather than high. Haugtvedt, Petty, and Cacioppo (1992) also find that message-relevant thoughts have a greater influence on high NFC people’s attitudes in response to persuasive communication than do peripheral cues in the message.

In the context of user-generated content sites and SNS, the effect of NFC has yet to be investigated. Similar to the findings regarding persuasive message processing, people who are intrinsically interested in analyzing and processing information about user-generated content sites may be more likely to form attitudes about such sites through cognition. In contrast, people who are more attracted to the design of the site than the content might process messages differently and thus form their attitudes of SNS by linking it with peripheral cues. Therefore, the effect of NFC on attitudes and willingness to join and participate in SNS requires investigation.

This current study is limited, in that it does not manipulate the type and nature of SNS to test the effect of NFC levels on attitude toward SNS, but in its simplest form, the described survey examines the link between NFC and attitudes toward general SNS.

Need to Belong

People need to be loved and socially accepted; this phenomenon is referred to as “need to belong” (Baumeister and Leary 1995; Leary, Kelly, and Schreindorfer 2001). This need to belong among human beings is a “fundamental human motivation that is something all human beings possess ... to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (Baumeister and Leary 1995, p. 497). Social networking sites offer a space in which people can address this need to belong by using services provided by the sites that enable conversations and information gathering, along with the possibility of gaining social approval, expressing opinions, and influencing others. Therefore, people’s attitudes and behavior with regard to SNS may stem from their need to belong. The strength and intensity of this need varies among people and is considered “difficult or impossible for culture to eradicate” (Baumeister and Leary 1995, p. 499).

Need to belong also can be understood on the basis of a fundamental interpersonal relations orientation, which suggests three basic needs underlie people’s group-seeking behavior: inclusion, which pertains to the need to belong to or include others in a circle of acquaintances; affection, or the need to love or be loved by others; and control, which encompasses the need to exert power over others or give power over the self to others (Schutz 1966). Joining SNS can meet all three of these needs; specifically, people may join user-generated content sites such as Facebook to remain “in the loop” and maintain relationships with friends and others, irrespective of time and physical space.

Because the level of the need to belong varies among people, its effect emerges in varying levels of attitudes and willingness by different people to join and participate in user-generated content sites. In other words, there is a greater chance that people will join and participate in SNS if they rate high on the need to belong scale.

Collective Self-Esteem

Collective self-esteem, which is also referred to as social identity in psychology literature, is defined as “that aspect of the individuals’ self-concept which derives from their knowledge of their membership in a social group together with the value and emotional significance attached to that membership” (Tajfel 1981, p. 255; see also Crocker and Luhtanen 1990). Collective self-esteem (CSES) is similar to personal self-esteem in that (1) people are motivated to achieve or maintain high levels of both types (Tajfel 1981; Tajfel and Turner 1986) and (2) individual-level differences in both indicate that people possess high or low levels of either CSES or personal self-esteem (Luhtanen and Crocker 1992). The way CSES operates in a group context is also similar to how personal self-esteem works in an individual context. Crocker and Luhtanen (1990) provide evidence of the moderating role of CSES in responses to group failure experiences, similar to the moderating role of personal self-esteem in responses to personal failures. However, the fundamental difference between personal self-esteem and CSES is that CSES refers to the value placed on the social group. That is, whereas the point of reference for CSES is the group to which the person belongs, the point of reference for individual self-esteem is the person, separate from the group (Kim and Omizo 2005).

Luhtanen and Crocker (1992) propose four types of collective self-esteem, which they use as subscales to measure individual-level CSES. These subscales each contain four items and are named membership self-esteem, private collective self-esteem, public collective self-esteem,

and importance to identity. Membership self-esteem refers to a person's judgment of how good or worthy he or she is as a member of a group, whereas the private collective self-esteem scale taps into the evaluation of his or her own group, and the public collective self-esteem scale refers to how nonmembers evaluate the group. Finally, importance to identity relates to how important membership in a group is to a person's identity or self-concept. This study uses the 16-item scale developed and tested by Luhtanen and Crocker (1992) in its entirety.

Most CSES research, as well as usage and modification of the 16-item scale, appears in the area of psychology, including studies that link collective self-esteem to individual general well-being, often represented by variables such as life satisfaction, depression, and hopelessness. Other studies examine the relationship between CSES scores and attitude toward various group-related behaviors. For example, Yeh (2002) finds that Taiwanese persons with high levels of collective self-esteem report less favorable attitudes toward help-seeking behavior among Taiwanese. Smith (1999) adopts the CSES scale to study its effect on attitude toward women in general among three groups—feminists, anti-feminists, and a mixed group. Groups that self-identify as both feminists and anti-feminists indicate equally high levels of gender collective self-esteem compared with the mixed group. In addition, feminists reveal the lowest average mean score on the sexist attitude toward women scale, indicating that feminists have relatively fewer sexist attitudes toward women. Therefore, CSES appears to go beyond just reflecting gender self-esteem and can indicate the value that both feminists and anti-feminists place on their gender.

The relationship among collective self-esteem, group membership, and participation remains underresearched. Luhtanen and Crocker (1992) suggest that active members of social groups score higher on the CSES scale than do less active members. Although some studies

examine CSES and its relationship with people's motivation to engage in in-group preferences and their overall attitude toward their group (e.g., Crocker and Luhtanen 1990; Hogg and Abrams 1990), no study links CSES to attitude toward social groups in an online context. In other words, researchers do not know if people are more likely to join organizations or groups such as SNS when they score higher on the CSES scale. This study therefore investigates the link between CSES and attitudes toward SNS, as well as college students' willingness to join such sites.

Research Questions

Research into user-generated content sites, especially SNS, and their adoption by Internet users remains limited, offering little insight into why college students register with these sites and the various factors that influence their adoption. Therefore, this study examines four factors that may affect attitudes and willingness to join user-generated content networks such as Myspace and Facebook. The scope of the current study focuses specifically on investigating the role of Internet self-efficacy, need for cognition, need to belong, and collective self-esteem in predicting attitudes toward SNS and likeliness to join such sites. In line with the exploratory nature of this study, it concentrates on the following research questions:

RQ1: *What is the nature of the relationship between Internet self-efficacy, need for cognition, need to belong, and collective self-esteem and college students' attitudes toward social networking sites (SNS)?*

RQ2: *What is the nature of the relationship between Internet self-efficacy, need for cognition, need to belong, and collective self-esteem and college students' willingness to join social networking sites (SNS)?*

Method

Sample

Two hundred thirty-seven undergraduate students, recruited from a large southwestern university, agreed to participate in the study. Students are offered extra credit for their

participation. A student sample is justified because SNS users fit the demographics of college students between the ages of 18 to 30 years. The sample includes different age groups, ethnic backgrounds, and different majors and years.

Design and Procedure

A 65-item questionnaire developed and pretested on a small sample of academic professionals and graduate students ensures clarity (additional data also were collected but not analyzed for this study). The questionnaire consists of seven major sections that assess: (1) attitude toward SNS, (2) willingness to join SNS, (3) Internet self-efficacy, (4) need for cognition, (5) need to belong, (6) self-esteem, and (7) collective self-esteem. The measure of attitude uses an established six-item, seven-point semantic differential scale (bad/good, foolish/clever, unpleasant/pleasant, useful/useless, boring/interesting, and negative/positive) (Bruner, James, and Hensel 2001, p. 84). Participants indicate their general feelings toward SNS. The willingness to join measure relies on four established semantic differential items (unlikely/likely, probably/probably not, impossible/possible, and definitely would/definitely would not) (MacKenzie and Spreng 1992). Marketing literature has made extensive use of both of these scales (Donthu 1992; Laczniak and Muehling 1993).

The measure of need to belong consists of a seven-item Likert scale that includes statements such as, “I want other people to accept me,” “I do not like being alone,” and “I try hard to stay in touch with my friends” (Leary 1957; Leary, Kelly, and Schreindorfer 2001). Similarly, need for cognition includes seven Likert scale items with statements such as, “I prefer complex to simple problems,” “Thinking is not my idea of fun,” and “Learning new ways to think doesn’t excite me very much” (Cacioppo and Petty 1982; Cacioppo, Petty, and Kao 1984; Cohen, Stotland, and Wolfe 1955). The collective self-esteem scale comes from Luhtanen and

Crocker (1992) and includes 16 items, categorized into four subscales: membership self-esteem, private self-esteem, public self-esteem, and importance to self. This scale measures self-esteem derived from group membership. All scales are tested for reliability.

The questionnaire also features an open-ended question that asks respondents to list all reasons, in detail, that they are members of a SNS. It also collects information about the number of hours they spend surfing the Web, the number of SNS to which they belong, the average number of times they sign on to their SNS account, and the number of hours per week they spend on such sites. Finally, the survey concludes with demographic questions regarding the respondent's age, gender, and ethnicity.

Respondents filled out a paper-and-pencil version of the survey, which includes non-Internet users in the study as well. An online version, though easy and efficient to administer, might exclude participants who do not have access to the Internet. Respondents took approximately 20 minutes to complete the entire survey. To maintain anonymity, the questionnaires do not collect the respondents' names.

Results

Data Analysis

The sample consists of 43.9% men and 56.1% women, 96.7% of whom fall in the age group of 18 to 30 years ($M = 22.63$). The majority of respondents classify themselves as Caucasian (76.7%). More than 99% indicate that they surf the Web for at least an hour a week, and many of them (13.5%) surf for 10 hours per week ($M = 12.7$). Most respondents (93.2%) belong to at least one SNS, and 3% belong to four or more sites. Ninety-two percent of respondents indicate that they log on to their SNS accounts at least once a day; 6% log on as

often as 10 times a day. The number of hours spent on the sites varies; the largest group (27%) spend two to three hours per week, and almost 50% spend two to five hours a week on SNS.

The reliability assessment of all scales uses Cronbach's alpha, and all except the need to belong and the collective self-esteem scales exceed the generally accepted guideline of .70 (Hair et al. 1998). Table 1 summarizes the mean scores, variances, and reliability indices.

Table 1. Mean, Variance, and Cronbach's Alpha Coefficients

Scale	Mean	Variance	α
Attitude toward social networking sites (6 items)	4.90	.12	.84
Willingness to join SNS (4 items)	5.19	.07	.89
Internet self-efficacy (10 items)	4.74	.42	.91
Need for cognition (7 items)	4.00	.21	.75
Need to belong (7 items)	4.68	.71	.63
Collective self-esteem (16 items)	5.28	.23	.63

Research Questions

Two series of multiple regression analyses serve to answer the research questions, one in which attitude toward SNS is the dependent variable, and another in which willingness to join the SNS serves as the dependent variable. The predictor variables in both cases are Internet self-efficacy, need for cognition, need to belong, and collective self-esteem. Tables 2 and 3 provide the R-square values, collinearity statistics, and coefficient estimates for both regressions. The high tolerance and low variance inflation factors (VIF) indicate that collinearity is not an issue for this multiple regression.

All the variables except NFC have a positive effect on a person's attitude toward SNS and willingness to join SNS. Each standardized value represents the amount of change in attitude toward SNS, given a standard deviation unit change in X (where X is Internet self-efficacy, need to belong, or collective self-esteem). For example, attitude toward SNS changes by .16 with a standard deviation unit change in need to belong and by .168 and .18 for each standard deviation

unit change in Internet self-efficacy and collective self-esteem, respectively. The interpretation of the parameters also can use unstandardized coefficient estimates. In this case, each unstandardized value represents the amount of change in attitude toward SNS, given a single raw score unit change in X (where X again is Internet self-efficacy, need to belong, or collective self-esteem). In other words, attitude toward SNS increases by .24, .16, and .27 for a unit increase in the value of need to belong, Internet self-efficacy, and collective self-esteem, respectively (scale of 1 to 7). This sample therefore implies that users' attitude toward SNS is related to their level of Internet self-efficacy, their need to belong, and their collective self-esteem.

Table 2. Regression Analysis

	Unstandardized	Standard	Standardized	t	p-level	Collinearity	
	Estimates	Error	Estimates			Tol	VIF
	B	SE	β				
Intercept	1.649	.699		2.359	<.05		
Internet self-efficacy	.165*	.064	.168	2.567	.011	.895	1.117
Need for cognition	-.027	.079	-.022	-.341	.734	.899	1.112
Need to belong	.240*	.094	.166	2.565	.011	.918	1.089
Collective self-esteem	.276*	.098	.181	2.816	.005	.928	1.078
R ²	.10						
Adjusted R ²	.09						

* $p < .05$

Notes: Dependent variable is attitude; predictors are Internet self-efficacy, need for cognition, need to belong, and collective self-esteem.

The same result emerges for the effect of Internet self-efficacy, need to belong, and collective self-esteem on willingness to join SNS. As Table 3 reveals, each of these factors positively influences willingness to join. Need for cognition, however, again has no influence on willingness to join SNS.

Table 3. Regression Analysis

	Unstandardized Estimates	Standard Error	Standardized Estimates	t	p-level	Collinearity Statistics	
	B	SE	β			Tol	VIF
Intercept	1.701	.915		1.859	.064		
Internet self-efficacy	.180*	.084	.141	2.139	.034	.895	1.117
Need for cognition	-.163	.104	-.103	-1.574	.117	.899	1.112
Need to belong	.244*	.122	.129	1.990	.048	.918	1.089
Collective self-esteem	.407*	.128	.205	3.172	.002	.928	1.078
R^2	.10						
Adjusted R^2	.08						

* $p < .05$

Notes: Dependent variable is willingness to join SNS; predictors are Internet self-efficacy, need for cognition, need to belong, and collective self-esteem.

These results are not surprising, in that previous studies (Ridings and Gefen 2004; Watson and Johnson 1972) mention staying in touch with friends, social support, and friendship as main motivations for why people join communities, whether offline and online. However, it is surprising to find that NFC has no influence on either the attitude or the behavioral intentions of people when it comes to SNS. The reason for this finding might relate to the nature of SNS, which differ from other kinds of discussion and support groups that reveal a definite link with NFC. The need to exchange information represents a primary reason people join virtual communities (Ridings and Gefen 2004), but this result indicates that SNS differ from virtual communities, in which the focus might be on information exchange rather than networks and relationships. Nonetheless, in response to the research questions, the need to belong, Internet self-efficacy, and collective self-esteem variables all seem positively related to both attitudes toward SNS and willingness to join SNS.

Additional Analysis

The relationship between the three variables and willingness to join SNS requires further examination. Internet self-efficacy, need to belong, and collective self-esteem all positively

affect attitudes and willingness to join SNS, which provide the first two conditions of a mediation effect (Baron and Kenny 1986). If attitude mediates the relationship of Internet self-efficacy, need to belong, and collective self-esteem with willingness to join SNS, the third condition requires that the mediator (attitude) positively affect the dependent variable (willingness) when regressed in conjunction with the independent variables (Internet self-efficacy, need to belong, and collective self-esteem). Moreover, the effect of the independent variables on the dependent variable should be less than it was previously (Baron and Kenny 1986).

Therefore, multiple regression analysis features willingness to join as the dependent variable and Internet self-efficacy, need to belong, need for cognition, collective self-esteem, and attitude toward SNS as independent variables. Table 4 lists the R-square and estimated coefficient values. Attitude mediates the relationship of Internet self-efficacy, need to belong, and collective self-esteem with behavioral intentions, but the extent to which this mediation occurs differs. That is, the mediation is complete for Internet self-efficacy and need to belong; these coefficients are no longer significant when regressed with attitude. However, the coefficient of collective self-esteem remains significant, though it decreases in magnitude, which suggests a partial mediation. The finding that attitude only partially mediates the relationship between willingness to join (behavioral intention) and collective self-esteem is interesting. Perhaps behavior relates directly to collective self-esteem in some cases, irrespective of attitudes. This finding might have additional implications in the area of political communication. For example, a high level of CSES may relate directly to a person's voting behavior, irrespective of his or her attitude toward the candidate.

Table 4. Regression Analysis

	Unstandardized	Standard	Standardized	t	p-level	Collinearity	
	Estimates	Error	Estimates			Tol	VIF
	B	SE	β				
Intercept	.646	.810		.798	.426		
Internet self-efficacy	.074	.075	.058	.997	.320	.870	1.149
Need for cognition	-.146	.091	-.093	-1.610	.109	.898	1.113
Need to belong	.090	.109	.048	.832	.406	.893	1.120
Collective self-esteem	.231*	.114	.116	2.020	.045	.897	1.115
Attitude toward SNS	.640*					.894	1.119
	R ²	.31					
	Adjusted R ²	.29					

* $p < .05$

Notes: Dependent variable is willingness to join SNS; predictors are Internet self-efficacy, need for cognition, need to belong, collective self-esteem, and attitude toward SNS.

Conclusion

When studying user-generated content sites, such as social networking sites, an important question pertains to why people join and share information with others on such sites. Such information often can be sensitive and personal. On sites that rely on user-generated content, such as Facebook and Friendster, individual users post not only contact information but also personal information, such as their favorite television shows, movies, music, and quotes. Users maintain online blogs and journal entries. Sometimes, users also generate content visually through photo diaries on sites such as Flickr.com or video uploads. As new line of research, investigation into and understanding of the various antecedents of adoption of SNS and other user-generated content sites must continue. Although examining an exhaustive list of the antecedents of attitude toward SNS and other user-generated sites is beyond the scope of this project, it presents an initial exploratory overview of some key individual-level constructs that affect attitude toward SNS.

Attitude is not an overt behavior but rather a disposition that influences behavior (Allport 1935); however, the general conclusion with regard to the relationship between attitude and behavior indicates that attitude toward an action and subjective norms influence a person's intention to perform an action, which in turn influences action behaviors (Ajzen 1988; Ajzen and Fishbein 1980). Therefore, identifying the key constructs that influence attitude toward SNS helps further understanding of college students' willingness to join those SNS. However, this claim is not to suggest that actual SNS membership depends entirely on attitudes toward such sites or intentions toward joining. Attitude only plays a part in gauging intentions. Actual SNS and other user-generated site membership depends on several variables, including the nature of the site, topical relevance, and the strength and nature of the user's relationship with other members. As a first step toward understanding SNS membership, this study considers four factors—Internet self-efficacy, need for cognition, need to belong, and collective self-esteem—that may influence attitude toward SNS. Internet self-efficacy, need to belong, and collective self-esteem have positive influences on attitudes toward SNS. Furthermore, attitudes fully mediate the relationship between willingness to join SNS and Internet self-efficacy and need to belong and partially mediate the relationship between willingness to join and collective self-esteem.

Because it is exploratory in nature, this study also presents some limitations. First, it relies on a convenience sample of college students, which limits the validity of the findings. Second, and most serious, more than 90% of the respondents indicated that they belonged to one or more social networking sites. Using a sample with more than 90% members to predict membership presents a serious limitation. However, this study also examines the antecedents of an important determinant of SNS success, that is, attitude toward SNS. To predict willingness to

join SNS though, a more heterogeneous sample is needed. Further research should include people from other age groups, education, and income levels to examine the effect of need to belong, collective self-esteem, and Internet self-efficacy. Third, the low reliability indices for need to belong and collective self-esteem limit the overall reliability of the current study. Fourth, many antecedents of attitude toward user-generated content sites are not included. Additional studies should examine other variables, such as situational factors, the strength and nature of relationships with other members, perceived risk, and privacy and security issues. User-generated content site usage also might depend on socioeconomic factors, such as income levels, parental success, social or peer group influence, and demographic factors, including age and gender. Furthermore, examining the consequences of SNS adoption represents another fertile ground for research. Despite the limited scope of current study, it marks a step in the right direction toward developing a comprehensive model that addresses both the antecedents and the consequences of user-generated content site adoption and usage, which has various implications for SNS owners and advertisers.

Managerial Implications

The influence of Internet self-efficacy on SNS adoption suggests that Web site owners should devise effective strategies that take into account these differing levels. Designing sites perceived to be easy to navigate could affect attitudes toward the site, as well as the likelihood of adoption. Internet self-efficacy depends on several factors, such as prior computer experience, time spent online, and physical limitations that may not be under the direct control of marketers and SNS owners, but by designing sites that are easier to navigate, they can influence confidence levels. Web sites that increase visitors' perceived sense of control, interactivity, and virtual brand experiences also are more likely to elicit favorable attitudes, which can translate to behavioral

intentions and the actual adoption of the services offered on those sites. Social networking sites further can increase users' sense of control by providing them with easy-to-implement design or blog templates, as well as an easy mechanism to upload and share photos, journal entries, and other such features. An increased sense of control contributes to greater self-efficacy levels, leading to a favorable attitude and the ultimate adoption of user-generated content sites. In addition, SNS and other user-generated content sites might influence Internet self-efficacy levels by educating users and including tutorials or demonstration videos of their software in action. Showing the Web site's useful features and functions may help build and instill confidence in customers. However, people with high Internet self-efficacy also might self-select into SNS, which implies that the site might not always be enhancing their efficacy levels.

Appealing to collective self-esteem and tapping into the need to belong represent alternative plausible ways to increase membership and participation. Designing user-generated content sites and online communities that reflect members' desire to belong is a recipe for success. Several viral marketers have tapped into this need or desire to belong to a larger group with shared goals and motivations by designing campaigns like "Netscape Now," which touch on people's hunger to be popular, cool, loved, and understood. Social networking sites like Facebook and Friendster allow members to create and join groups without placing any restrictions on the nature and content of these groups. Such strategies appeal to people with high collective self-esteem and needs to belong. Finding like-minded members appeals to their collective self-esteem, which influences their attitude toward the sites that provide them with the chance to do so.

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