

From Dabblers to Omnivores

A Typology of Social Network Site Usage¹

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Introduction

Social network sites (SNSs) have become some of the most popular online destinations in recent years (comScore, 2009) and accordingly have started to attract the attention of academic researchers (see boyd & Ellison, 2007, for a review of related literature, as well as other chapters in this volume). Despite the upsurge in related work, most current investigations tend to look at SNS usage as an either-or phenomenon by focusing on the use of just one such site or, alternatively, investigating the use of any such site at any level of engagement (e.g., Jones, Millermaier, Goya-Martinez, & Schuler, 2008; Ross, Orr, Siscic, Arseneault, Simmering, & Orr, 2009; Steinfield, Ellison, & Lampe, 2008; Tong, Van Der Heide, Langwell, & Walther, 2008). But is it justifiable to assume that there is no difference among users in intensity of their SNS usage or that such variation is inconsequential for questions exploring the implications of SNS uses? It is this gap in the literature that this chapter addresses both theoretically and empirically. We put forward a typology of SNS usage that takes into consideration both frequency and diversity of SNS uses, the combination of which we refer to as “SNS use intensity.” We then apply this framework to an empirical example of SNS usage intensity in a community.

How do users differ in their engagement with SNSs? Are there systematic differences among frequent and occasional users of such sites? Is there a difference among those who are loyal to one SNS only compared to those who are actively involved with several? The lack of data on details of SNS usage has made it difficult for researchers to ask such nuanced questions about this topic. Here, thanks to a unique data set based on a survey administered to a diverse group of young adults with sufficiently detailed information about their SNS uses, we are able to explore answers to these questions. Findings suggest that intensity of SNS use varies among the group. While some people use only one

site and do so only occasionally, others use one SNS often while yet others engage with numerous sites regularly. Moreover, level of engagement is not randomly distributed across the sample. Rather, a person's gender, context of Internet use and online experiences are all associated with level of SNS use intensity. The results suggest the importance of more nuanced approaches to the study of SNS uses than has been traditionally the case.

Research on Social Network Site Uses

Social network sites have become some of the most popular online services since the early 2000s (comScore, 2009). Users create an online profile on these sites by listing personal information and interests, linking up with other users of the site, and sharing, often daily, updates about their thoughts and activities with those in their networks (boyd & Ellison, 2007). Given their significant rise in popularity, it is not surprising that these sites and how people use them has attracted much scholarly attention in recent years. Several papers were published in a special issue of the *Journal of Computer-Mediated Communication* in 2007 dedicated to investigating various aspects of SNSs. Its editors, boyd and Ellison (2007), review early scholarship in this domain, identifying four main research areas: (1) impression management, friendship performance, and identity construction; (2) networks and network structure; (3) online/offline social networks and social capital; and (4) concerns about privacy. This body of work finds that many people who use SNSs have started to integrate them into their everyday lives as a common daily practice. Consequently, SNS use may start to challenge some existing social conventions such as approaches to privacy, the way some people construct their self-identity, and how people interact with one another in their daily lives. Accordingly, it is important to have a better understanding of the possible variation in the extent to which different people use such sites for an appreciation of how their different uses may influence social practices.

In the past few years, there has been continued rapid growth in SNS research exploring earlier questions in more detail, asking new questions, and doing so through the use of an increasingly diverse set of methodologies. In studies of computer-mediated communication (CMC), some scholars have employed various perspectives to conceptualize and empirically investigate impression management and identity construction on SNSs (e.g., Goodings, Locke, & Brown, 2007; Walther, Van Der Heide, Hamel, & Shulman, 2009; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008; Zhao, Grasmuck, & Martin, 2008). For example, Walther and colleagues found that the content on one's Facebook friends' profiles rather than the content on one's own profile affects how others perceive a user on Facebook. Empirical analyses of

profiles on MySpace (Goodings, Locke, & Brown, 2007) and Facebook (Zhao, Grasmuck, & Martin, 2008) have found that, due to some relatively unique features of SNSs compared to previous online spaces, the practices of identity construction on them are different from anonymous online environments. Unlike in some other online spaces, on SNSs, users' identities are often anchored in physical proximities, institutions, and shared personal relationships in daily life, thereby often mirroring offline aspects of people's lives.

Researchers have also started to look at the properties of Facebook users' friendship networks and their implications (e.g., Lewis, Kaufman, Gonzalez, Wimmer, & Christakis, 2008; Seder & Oishi, 2009; Tong et al., 2008). For example, in their experimental study of online impression formation, Tong and colleagues found a complex non-linear relationship between the total number of friends on an individual's profile (i.e., network size) and the person's perceived attractiveness and perceived extraversion. Racial and ethnic homogeneity of personal networks on these sites is another question that has attracted scholarly attention. Researchers have found that White Facebook users may have more ethnically and racially homogeneous friendship networks than others on the site (Lewis et al., 2008; Seder & Oishi, 2009).

Some scholars have directly addressed moral panics introduced in mainstream media about the possible detrimental consequences of using SNSs (Bahney, 2006; Hope, 2009; Leake & Warren, 2009; Nussbaum, 2007; Roush, 2006). Such academic research tends to suggest that empirical evidence rarely supports overarching fears about the social and psychological implications of using such sites (Hinduja & Patchin, 2008; Jones et al., 2008; Livingstone, 2008; Pasek, more, & Hargittai, 2009). Other researchers in this domain have focused on exploring the factors that explain different patterns in SNS use and adoption such as gender, personality, and motivations (Barker, 2009; Joinson, 2008; Lampe, Ellison, & Steinfield, 2008; Pfeil, Arjan, & Zaphiris, 2009; Ross et al., 2009; Seder & Oishi, 2009; Steinfield et al., 2008; Zywicki & Danowski, 2008). While some of the more recent work has started to consider level of engagement with SNSs (e.g., Barker, 2009; Joinson, 2008; Steinfield et al., 2008), no systematic approach has so far been put forth to address the question of use intensity despite the fact that level and types of usage likely have repercussions for how SNS usage fits into and impacts people's lives.

Frequency and Diversity of Social Network Site Uses

As noted above, the academic literature on SNS uses has covered considerable ground despite being a relatively new area of inquiry. Here, we are especially

interested in work that has considered frequency and diversity of SNS usage. These aspects of use may reflect actual differences in how people are incorporating these services into their lives and possible consequences resulting from their uses. Accordingly, they may be problematic to ignore in studies of SNSs.

Some recent scholarship has started to look at SNS usage in more nuanced ways by considering such factors as frequency of use. One example of work that has considered frequency of use is Joinson's (2008) two-stage approach to studying motivations for, and interest in, using, Facebook. The researcher was interested in explaining different levels of Facebook use and operationalized the concept in the following two ways: the amount of time spent on and the frequency of visits to the site during an average week. Joinson found that female respondents, on average, visited Facebook more often than males, but once on the site, there was no gender difference in how much time people spent on it.

While Joinson (2008) was interested in explaining frequency of use, i.e., this was the dependent variables in his study, others have considered this aspect of usage as an explanatory factor, i.e., as independent variables, while focusing on other outcomes in their analyses (Barker, 2009; Steinfield et al., 2008). For example, in her study of college students' motivations for using SNSs, Barker (2009) included frequency of SNS use in her analyses measured by a variable constructed from answers to questions about both number of visits to SNSs and amount of time spent on such a site (measures similar to those employed by Joinson, 2008, cited above). Barker defined this latter measure, however, as a global estimate of SNS usage, not accounting for any specific information about particular sites visited. She found a gender difference in motivations of SNS usage with female students and those possessing stronger group identity using SNSs more frequently for communicative and entertainment motivations than others. Despite having included the frequency measure in her survey of first-year college students, she did not analyze it or interpret its association with other variables in the paper, so we do not know whether this measure is related to the outcomes of interest in her project.

In their study of social-capital formation through Facebook use, Steinfield and colleagues (2008) developed a "Facebook Intensity scale" as an important explanatory variable when looking at how Facebook use may predict changes in users' social capital. This measure is based on data about daily time spent on the site, total number of Facebook friends, and a series of attitudinal items assessing "the degree to which the respondent felt emotionally connected to Facebook and the extent to which Facebook was integrated into daily activities" (Steinfield et al., 2008, p. 439). The authors found that intensity of use leads to increases in bridging social capital. This finding lends support to the

central idea of this chapter: that it is limiting to consider SNS usage as a simple binary variable separating users from non-users; rather, it is important to look at level of engagement with such sites when considering their implications.

As the above studies suggest, some scholars have started to consider frequency of SNS usage in their work. However, neither the studies reviewed in this section nor other research in this domain has looked at the diversity of social network site usage (i.e., the number of different such sites respondents use). The prevailing approach seems to be to look at the use of just one such service (e.g., see Pfeil et al., 2009, for MySpace and Steinfield et al., 2008, for Facebook) with a possible underlying implication that findings about their uses are interchangeable. However, work has shown that these sites attract different communities (Hargittai, 2007), they also have different designs, they allow for varied functionality and affordances, and so generalizing findings from one to others may be problematic. For example, while some sites are mainly used for social relationship maintenance (e.g., Facebook), others are more likely for the cultivation of professional networks (e.g., LinkedIn). Given the increasing number and prevalence of SNSs and differences in how much time people spend online on various activities more generally speaking (e.g., Fallows, 2004; Howard & Jones, 2004; Wellman & Haythornthwaite, 2002), it seems problematic to collapse all SNS users into one group. It may pose a challenge to generalize findings about one site's usage to another and thereby ignore specifics about types of site uses in investigations. To address this shortcoming of the literature, we propose a typology of SNS usage that takes the diversity of SNSs used into account.

Typology of Social Network Site Uses

To refine scholarly approaches to the study of SNS uses, we propose taking into consideration both the frequency with which users visit such sites and the number of SNSs with which people engage on a regular basis. This approach yields a two-by-two matrix of SNS engagement presented in Figure 7.1. Those who only use one such site and do so only sometimes are Dabblers. Those who visit more than one SNS, but none of them often, are Samplers. Users who are active often on one such site only are Devotees. Finally, those who are visitors to more than one such site and use at least one of them often are Omnivores. Dabblers are the least engaged group of the four. Samplers are not active on any particular SNS, but spend time on more than one so their engagement is likely higher than that of Dabblers. Devotees only engage with one such service, but do so often. Omnivores have embraced SNSs the most by using a diversity of them and spending considerable time on at least one such service.

		Number of SNSs used	
		One SNS only	More than one SNS
Use frequency	Sometimes	Dabbler	Sampler
	Often	Devotee	Omnivore

Figure 7.1 Typology of social network site usage.

Methods

Data Collection

College students in the U.S. constitute an ideal population for studying differences in digital media uses given their high Internet connectivity levels. Accordingly, the analyses presented here are based on data representing a diverse group of mainly 18- and 19-year-old college students. The data collection was conducted in February and March of 2007 at the University of Illinois, Chicago, which is a U.S. urban public research university.² *U.S. News and World Report* (2006) ranked this campus among the top-10 national universities regarding campus ethnic diversity, suggesting that this school offers an ideal location for studying how different kinds of people use online sites and services.

There is one course on this campus that is required of all students: the First-Year Writing Program. Surveying students based on enrollment in this course ensures that there is no selection bias among study participants. Out of the 87 sections offered as part of this course, the survey was administered in 85 sections, constituting a 98% participation rate on the part of course sections. Overall, there was a final response rate of 82% based on all of the students enrolled in the course. In order to control for time in the program, this article focuses on the 1,060 students in the first-year class.³

The survey was administered on paper instead of online. Relying on an online questionnaire when studying Internet uses could create a bias toward people who spend more time on the Web, given that they may be more inclined to fill out the questionnaire and also, perhaps, more inclined toward higher rates of participation on the sites of research interest. The survey included detailed questions about respondents' Internet uses (e.g., experience, types of sites visited, and online activities) as well as people's demographic background in addition to a number of other questions.

Independent Variables

We measure basic demographic information using standard modes of operationalization. Students were asked their year of birth and this information is used to calculate their age, which is included in the models as a continuous variable. Male is the base gender category (male = 0, female = 1). Information about race and ethnicity was collected using the U.S. 2000 Census Bureau questionnaire format (U.S. Census Bureau, 2001), and dummy variables are used in the statistical models, with White as the base category. Consistent with work by others, parental education is used as a measure of socioeconomic status (e.g., Carlson, Uppal, & Prosser, 2000). This information is included in the model as dummy variables, with some high school education or less as the base.

We collected data about students' living situation as well as the context of their Internet uses given that social context of use has been shown to matter in how people use the medium (Frohlich & Kraut, 2003; Hassani, 2006). Both the question about living at home with parents and the question about having access to the Internet at a friend's or family member's home is included as a binary variable, where 1 signals affirmative and 0 stands for negative. Regarding Internet experiences, we asked about how much time respondents spend online and calculated hours spent on the Web per week, excluding time spent on email, chat, and voice services. We also asked how long they have been using the Internet and have a measure with number of years online. Figures for both of these are logged in the analyses given that an additional hour or year, respectively, likely has diminishing returns as the values increase. Also, following Hargittai (2005, 2009), we construct an Internet skill measure from 27 items asking about respondents' level of understanding of Internet-related terms. With the exclusion of missing values on these measures, the valid responses to these five-point Likert-scale questions are averaged to generate a global measure of Internet skill level.

Dependent Variables

To measure SNS usage, the survey asked respondents first to indicate their familiarity with various sites and then their experiences with using them. The six SNSs included on the questionnaire—based on their popularity at the time—were: Bebo, Facebook, Friendster, MySpace, Orkut, and Xanga. To measure familiarity, we asked respondents to indicate whether they had ever heard of the site. To measure experience, participants were asked to choose one of the following options: “No, have never used it,” “Tried it once, but have not used it since,” “Yes, have tried it in the past, but do not use it nowadays,” “Yes, currently use it sometimes,” and “Yes, currently use it often.” We construct our measures of use from answers to this latter question.

Usage is measured by two dummy variables. The first considers whether the respondent uses the site *sometimes* and the second accounts for using it *often*. We then use these binary variables to construct measures of where users fall in the typology of SNS usage described in the previous section. In addition to constructing this five-category variable of typology, we further create two binary dependent variables for SNS users. First, we construct a variable for frequency of SNS use by collapsing Dabblers and Samplers (denoted as 0) versus Devotees and Omnivores (denoted as 1). Second, we construct a variable measuring the diversity of SNS use by collapsing Dabblers and Devotees (denoted as 0) versus Samplers and Omnivores (denoted as 1).

Methods of Analysis

We first report descriptive statistics about variation in SNS usage (i.e., the aforementioned typology), and how this variation may differ by students' demographic background. Next, given that our dependent variable, the typology of SNS usage, is a categorical variable, we employ multinomial logistic regression models in order to investigate further the differences in frequency and diversity of SNS use, with controls for various factors. The multinomial logistic regression is appropriate for our analyses, because it is developed for modeling categorical dependent variables (Long, 1997).⁴ We also employ two separate logistic regression models to analyze whether demographic factors, Internet user context and experiences, and online skills exhibit any systematic relationship with either frequency or diversity of SNS usage among participants.

Sample Descriptives

The 1,060 first-year students included in these analyses represent a diverse group of young adults. Table 7.1 shows descriptive statistics about the group. In total, 56% of the respondents are female, 44% are male. Almost all are 18 or 19 years old, with a mean age of 18.4 and a median of 18. Fewer than half are White and non-Hispanic. Slightly fewer than 8% claim African or African American descent, almost 30% are of Asian or Asian American ancestry, and just under one-fifth are of Hispanic origin. Students come from varied family backgrounds. Over one-quarter of respondents have parents whose highest level of education is no more than a high school degree, an additional 20% have parents without a college degree (i.e., some college education). While it may seem that sampling from a college population assumes a highly educated group, 25% of first-years at this university leave the institution by their second year (Ardinger et al., 2004) and fewer than half (43.6%) will graduate from this school within six years of

enrollment (University of Illinois-Chicago, 2004).⁵ Over half of the students at this university commute from home and live with their parents (53.1%).

Baseline Internet access and use statistics (Table 7.2) for the sample suggest that being online is not a novel concept in most of these students' lives. On average, participants have access to the Internet at over six locations and have been users for over six years. When asked how often they go online, the vast majority report doing so several times a day. They estimate spending 15.5 hours visiting websites weekly (excluding email, chat, and voice services). While there is certainly variation in levels of access and use among participants, there are no basic barriers standing in the way of these young adults to accessing the Internet. Limits may be put on their uses due to other factors (e.g., the need to share resources at home, limited hours of access due to employment, commuting or parental controls), but they all have basic access. This suggests that traditional concerns about the so-called digital divide do not apply to these students regarding basic Internet availability. Thus, looking at such a wired group of users allows us to hold basic access constant and focus on differences in details of use instead.

Variation in Social Network Site Usage

As reported in earlier work based on this data set (Hargittai, 2007), overall, 88% of respondents in this sample are SNS users. Only one student claimed

Table 7.1 Descriptive statistics about the sample

	<i>Percent</i>
Women	55.8
Age	
18	64.8
19	32.2
20–29	3.0
Race and ethnicity	
White, non-Hispanic	42.7
Hispanic	18.8
African American, non-Hispanic	7.7
Asian/Asian American, non-Hispanic	29.6
Native American, non-Hispanic	1.2
Highest level of parental education	
Less than high school	7.4
High school	19.0
Some college	20.1
College	34.4
Graduate degree	19.1
Lives with parents	53.1

Table 7.2 Internet experiences of sample participants

	<i>Mean</i>	<i>Standard deviation</i>
Number of Internet access locations	6.2	(2.1)
Number of Internet use years	6.4	(2.0)
Number of hours on the Web per week*	15.5	(10.0)

Note

*This figure excludes time spent on email, chat, or online telephony (VoIP).

not to have heard of any of the six SNSs included on the survey (i.e., Bebo, Facebook, Friendster, MySpace, Orkut, Xanga), so non-use is not a result of not being familiar with these services. Rather, despite knowing about such sites, over 12% of the sample does not use any of them. Table 7.3 presents more details about what proportion of respondents has heard about and has used or currently uses the six SNSs discussed here. Facebook is the most popular service among these students (78.8%), followed by MySpace (54.6%). Almost two-thirds of the overall sample use Facebook frequently, but just over one-third use MySpace often. The other four sites are considerably less popular among respondents.

Table 7.4 presents the prevalence of each type of SNS use among participants. As previously defined, “Dabbler” refers to those who only use one SNS and do so only sometimes. Students who report using only one of the six sites sometimes at the time of the study, we categorize as “Dabblers.” Just under one-tenth of the sample (9.2%) fits this description. Students who currently visit more than one of these sites, but none of them often, we categorize as

Table 7.3 Familiarity and experience with social network sites among participants (percentages)

	<i>Uses it*</i>	<i>Has heard of it</i>	<i>Has never used it</i>	<i>Tried it once, but no more</i>	<i>Used to use it, no longer</i>
Facebook	78.8 (62.8)	99.4	14.2	3.6	3.4
MySpace	54.6 (38.4)	99.5	20.8	9.4	15.2
Xanga	6.2 (1.9)	76.4	61.7	11.8	20.3
Friendster	3.3 (1.0)	43.3	84.7	5.6	6.4
Orkut	1.6 (0.6)	5.8	97.1	0.5	0.9
Bebo	0.6 (0.0)	9.6	95.4	2.8	1.2

Note

*Figures in parentheses refer to percent of students who visit the site often.

Table 7.4 Prevalence of social network site usage type among respondents*

	<i>Full sample</i>	<i>Among SNS users only</i>
Non-users	12.31	
Dabblers	9.19	10.48
Samplers	4.45	5.08
Devotees	28.79	32.83
Omnivores	45.27	51.62

Note

*These figures are based on 1,056 respondents due to missing data for four respondents that make it impossible to classify their level of SNS engagement.

“Samplers.” This is the smallest category in the group with only 4.4% of students classified as such. Students who currently use only one of the six sites, but do so often, are categorized as “Devotees.” They make up almost one-third of the sample at 32.9%. Finally, we classify those who visit more than one of these six sites with at least one of them visited often as “Omnivores.” This is by far the biggest category, with almost half of our respondents (45.3%) exhibiting such behavior. These students are quite familiar with social network sites and many of them use SNSs quite a bit.

Table 7.5 reports descriptive statistics by user background for SNS usage in general, and for the various categories of users in particular (Dabbler, Sampler, Devotee, and Omnivore). While women are more likely to use SNSs than men, once we break down usage by frequency and diversity of use, women are only more likely to be Omnivores than are men, and there is no gender difference regarding being a Dabbler, Sampler, or Devotee. There is no sharp contrast between students with different racial and ethnic backgrounds. We only find that non-Hispanic African American students are significantly less likely to be Dabblers and non-Hispanic Asian American students are significantly more likely to be Devotees than their counterparts. Regarding parental education, the most pronounced finding is that students whose parents have at least one parent with a college education are significantly less likely to be Dabblers and more likely to be Omnivores. In addition, students whose parents have less than a high school education are significantly more likely to be Dabblers and those whose parents have some college education are significantly more likely to be Samplers than others.

As found in earlier work (Hargittai, 2007), however, there is a relationship between SNS usage and other factors such as context of use and experience with the Internet, so it is best to further examine the differences in frequency and diversity of SNS usage employing more advanced statistical techniques that allow us to control for various factors simultaneously in our models. Given the

Table 7.5 Percentage of different groups of people who use SNSs at all and by SNS level of engagement

	Any SNS	Dabbler	Sampler	Devotee	Omnivore
<i>Gender</i>					
Male	86	10.0	4.7	29.2	41.2
Female	90*	8.5	4.2	28.3	48.2*
<i>Race/ethnicity</i>					
White, non-Hispanic	89	9.5	3.6	27.0	47.6
Hispanic	86	11.7	5.4	25.4	43.9
African American, NH	84	3.8*	3.8	26.3	50.0
Asian American, NH	89	8.2	5.6	33.7*	41.2
Native American, NH	83	8.3	0.0	25.0	50.0
<i>Parental education</i>					
Less than high school	88	15.4*	7.7	24.4	41.0
High school	85	10.0	4.5	26.4	43.8
Some college	85	7.6	7.1*	30.2	40.1
College	90*	6.9*	3.0	29.1	50.8*
Graduate degree	88	11.9	3.0	30.2	42.6

Notes

1. The figures in the columns of Dabbler, Sampler, Devotee, and Omnivore are the breakdown of the percentage of "Any SNS use" and thus do not add up to 100%.
2. Chi-square test for statistical significant difference between groups. * $p < 0.1$; ** $p < 0.01$; *** $p < 0.001$.

categorical nature of our typology of SNS use, in the next section we employ multinomial logistic regression analyses to investigate what may explain people's propensity to exhibit a particular type of SNS usage.

Explaining Different Levels of Social Network Site Engagement

In this section, using multinomial logistic regression analyses, we look at the relationship of several factors and intensity of SNS usage.⁶ In Table 7.6, we summarize all 10 comparisons between different types of SNS users in our model. For example, the second column (O–N), refers to the odds comparing the likelihood of being an Omnivore versus a Non-User. Likewise, we compare the odds of being an Omnivore to the odds of being a Dabbler in the third column, and so on moving down the rest of the columns. The estimates listed in Table 7.6 are the odds ratios generated from the multinomial logistic regression models. Odds ratios larger than one favor the category on the left-hand side, whereas the odds smaller than one favor the category on the right-hand side. For example, looking at the row labeled "Female," the number in the "O–N" column is 2.49. This means that women are considerably more

likely to be Omnivores versus Non-Users than are men. Likewise, if we go down a few rows, the figure for those living with parents in the same “O–N” column is 0.530, suggesting that the respondents who currently live with their parents are less likely to be Omnivores versus Non-Users than are those who are not living with their parents. In order to facilitate interpretation of the results, we derive the predicted probabilities from the models and explain these probabilities regarding the relationship between our explanatory factors and SNS user type. Figures that are statistically significant are highlighted in bold typeface.

User Background Variables

Figure 7.2 summarizes the gender difference in the predicted probabilities of SNS user type while holding other variables at their mean. In particular, female students are more likely to be Omnivores versus Non-Users, Dabblers, or Devotees than are male students once we control for race/ethnicity, parental education, context of use, Internet experience, and skill. Females are also more likely to be Devotees or Samplers versus Non-Users than are males. While earlier work (Hargittai, 2007) has already shown that female students in this sample have a higher likelihood of using various SNSs, the current analysis further indicates that they also have a higher likelihood of using such sites more intensely than their male peers. In other words, we find a significant gender difference in level of SNS user intensity.

As the next rows in Table 7.6 suggest, the odds of being different types of SNS users do not differ by students’ race and ethnic background except for one case: Asians and Asian Americans are more likely to be Devotees or Samplers versus Omnivores than are White students. None of the comparisons are statistically significant regarding parental education, suggesting that socioeconomic background does not relate to level of SNS engagement on the part of the student when we take user context, as well as Internet experience and skill, into consideration.

Context of Use

Variables measuring context of use were more likely to be significant predictors of SNS user type than users’ demographic characteristics. The results show that students who have Internet access at the homes of those in their social networks are more likely to be Omnivores and Devotees versus Non-Users than those who do not have Internet access at such locations. Those who have access at such places are also more likely to be Omnivores versus Dabblers than are those who do not have such access. The most pronounced

Table 7.6 Comparison of odds ratios between different types of social network site user types ($n = 1,010$)

	Odds comparing being type A to alternative type B									
	O-N	O-Db	O-Dv	O-S	Dv-N	Dv-Db	Dv-S	S-N	S-Db	Db-N
Age	0.883	0.885	0.863	0.756	1.023	1.026	0.877	1.167	1.170	0.997
Female	2.499*	1.811*	1.470*	1.175	1.700*	1.231	0.799	2.127	1.541	1.380
Race/ethnicity (as compared to White)										
Hispanic	1.027	0.824	0.949	0.786	1.083	0.865	0.828	1.308	1.047	1.250
African American	0.738	2.320	1.043	0.878	0.708	2.224	0.842	0.840	2.640	0.318
Asian/Asian American	0.804	0.869	0.608*	0.448*	1.322	1.430	0.737	1.793	1.939	0.925
Parental education (as compared to high school degree and lower)										
Some college	0.817	1.082	0.790	0.591	1.035	1.370	0.748	1.383	1.831	0.755
College degree	1.429	1.385	1.090	1.916	1.310	1.270	1.757	0.746	0.723	1.032
Advanced degree	0.894	0.600	0.845	1.285	1.058	0.709	1.521	0.696	0.467	1.492
Living with parents	0.530*	0.508*	0.857	0.319*	0.618*	0.593*	0.372*	1.663	1.594	1.043
Net access at friends/family's home	2.291*	2.041*	1.050	1.525	2.182*	1.945	1.453	1.502	1.338	1.122
Years online	0.807	1.690	0.870	0.800	0.928	1.942	0.929	1.009	2.113	0.478
Hours on Web/week (logged)	1.570*	2.509*	1.250	1.209	1.256	2.007*	0.967	1.299	2.075*	0.626*
Internet skills (standardized)	1.429*	1.137	1.269*	1.003	1.126	0.896	0.791	1.424	1.133	1.257

Notes

1. O: Omnivore; Db: Dabblers; Dv: Devotee; S: Sampler; N: Non-user.
2. In this table, values are odds ratios (ORs) from multinomial logistic regression. The odds larger than 1 favor type A (left-hand side), whereas the odds smaller than 1 favor type B (right-hand side).
3. * $p < 0.05$.

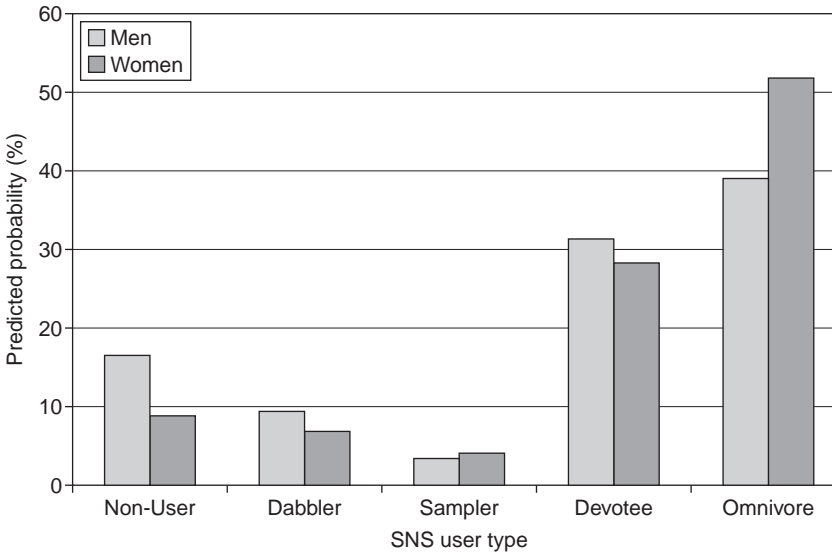


Figure 7.2 Probability of social network site user types by gender.

finding concerns the living context of participants. Respondents who live with their parents are less likely to be Omnivores versus Non-Users, Dabblers, or Samplers than those who do not live with their parents (see Figure 7.3). Respondents who live with their parents are less likely to be Devotees versus Samplers. These comparisons suggest that there is a significant relationship between living condition and intensity of SNS usage, where students who live with their parents have a lower likelihood of engaging with SNSs intensely.

Internet Experience

Perhaps not surprisingly, we observe a statistically significant relationship between some Internet experience variables and SNS usage type. Understandably, students who spend more time online weekly are more likely to be Omnivores versus Non-Users and Dabblers than those who spend less time online. Additionally, students who spend more time online are more likely to be Devotees, Samplers, and Non-Users versus Dabblers than are those who spend less time online. The figures in Table 7.7 illustrate the relationship between intensity of SNS usage and hours spent online weekly. Taken all together, we find that, for the students who spend 30 hours or more on the Web per week, the likelihood of being Non-Users and Dabblers is lower by 5.2 and 11.4 percentage points respectively than for those who only spend five

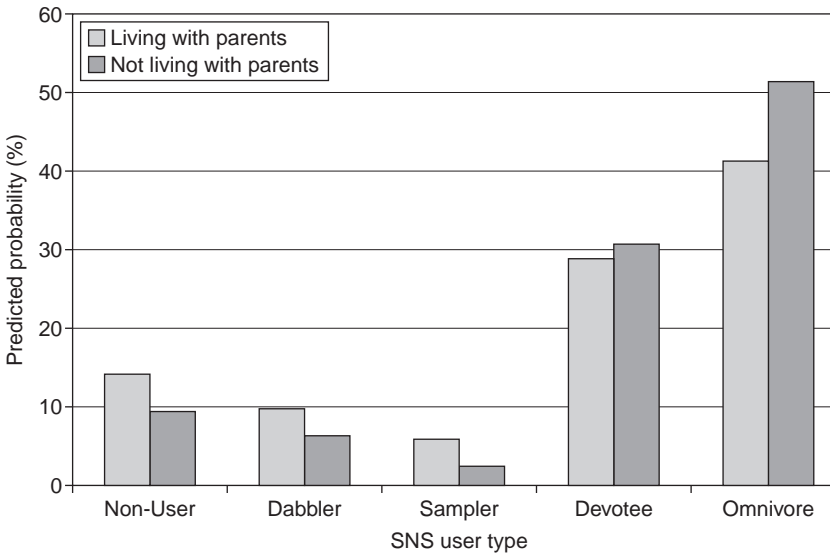


Figure 7.3 Probability of social network site user types by living context.

hours or less on the Web. At the same time, a frequent Web user’s likelihood of being an Omnivore is 16.9 percentage points higher than an infrequent user’s likelihood. In contrast to the importance of time spent online regarding SNS usage type, years of being an Internet user is not associated with variation in SNS use intensity.

Regarding online skills, students who exhibit higher levels of Internet know-how are more likely to be Omnivores versus Non-Users or Devotees than are those who possess lower-level skills, once we control for students’ demographic and socioeconomic backgrounds, context of use, and Internet experiences. In order to demonstrate the magnitude of probability change associated with Internet skills, we present the predicted probability for the

Table 7.7 Probability (%) of being each type of social network site user for an infrequent (5 hours per week) versus frequent (30 hours per week) Web user

	<i>Time spent online per week</i>	
	<i>5 hours</i>	<i>30 hours</i>
Non-Users	14.7	9.5
Dabblers	15.9	4.5
Samplers	3.6	3.8
Devotees	29.5	29.0
Omnivores	36.3	53.2

minimum and the maximum skill level in Table 7.8. As the figures reported in Table 7.8 suggest, the predicted probability of being a Non-User for respondents who report minimal levels of Internet skill is 19.3% and these students have a 33.6% chance of using SNSs intensely. However, for respondents with the maximum level of Internet skill, the predicted probabilities of being a Non-User and an Omnivore, respectively, are 6.5% and 59.1%. In other words, highly skilled users are much more likely to be in the Omnivore user category than lower-skilled users.

Diversity and Frequency of Social Network Site Usage Among SNS Users

In order to examine further whether the various explanatory variables exhibit any systematic relationship with either diversity or frequency of SNS usage among SNS users, we look at the results of two separate logistic regression models including only SNS users. As the figures in the “Diversity of use” column in Table 7.9 show, women as well as students who spend more time online per week, and those who have higher Internet skills, are more likely to be more diverse SNS users than their counterparts. In addition, compared to White students, Asian and Asian American students have a lower likelihood of being diverse SNS users. The results presented in the “Frequency of use” column suggest that no demographic factors influence how regularly respondents use SNSs. However, context of use and Internet experiences do seem to make a difference. Students who do not live with their parents, who have Internet access at a friend’s or family member’s home, and who spend more time online per week are more likely to use SNSs often.

Tables 7.10 and 7.11 illustrate the predicted probabilities of diversity and frequency SNS usage among SNS users in the sample, respectively. Here, we only report figures for factors that exhibit a statistically significant relationship with the outcome variables as per the results in Table 7.9. We find that hours

Table 7.8 Probability (%) of being each type of social network site user by Internet skill level (minimum versus maximum skill)

	<i>Internet skills (Standardized)</i>	
	<i>Minimum</i>	<i>Maximum</i>
Non-Users	19.3	6.5
Dabblers	7.7	7.6
Samplers	2.8	4.9
Devotees	37.2	21.9
Omnivores	33.0	59.1

Table 7.9 Logistic regressions predicting diversity and frequency of SNS use

	Diversity of use	Frequency of use
	Odds ratios (Standard errors)	
Age	0.90 (0.08)	0.88 (0.09)
Female	1.54** (0.24)	1.37 (0.29)
<i>Race/ethnicity (as compared to White)</i>		
Hispanic	0.91 (0.18)	0.82 (0.22)
African American	1.16 (0.34)	1.44 (0.68)
Asian/Asian American	0.71* (0.12)	0.85 (0.20)
<i>Parental education (as compared to high school and lower)</i>		
Some college	0.89 (0.19)	0.92 (0.26)
College degree	1.08 (0.21)	1.48 (0.39)
Advanced degree	0.74 (0.17)	0.78 (0.23)
Living with parents	0.85 (0.13)	0.47*** (0.10)
Net access at friends'/family's home	1.17 (0.28)	1.75* (0.49)
Years online	1.05 (0.27)	1.36 (0.47)
Hours on Web/week (logged)	1.46*** (0.16)	1.79*** (0.27)
Internet skills (standardized)	1.25** (0.11)	0.99 (0.11)
<i>n</i>	884	884
Pseudo R ²	0.0327	0.0681

Notes

1. The odds ratios (ORs) larger than 1 means more diverse or intense SNS use respectively, whereas the odds ratios smaller than 1 suggest that less diverse or intense SNS use.
2. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

spent online per week can explain both diversity and frequency of SNS usage, suggesting that the more time an individual spends online, the more likely this person is to use different types of SNS often. At the same time, the variables concerning context of use only affect the frequency of SNS usage, whereas gender, being Asian or Asian American, and level of Internet skill are related to diversity of SNS usage, but not frequency of use.

Table 7.10 Probability (%) of diverse social network site usage

<i>Diverse SNS usage</i>		
<i>Gender</i>	Male 50.9	Female 61.5
<i>Race/ethnicity</i>	Asians 51.1	Whites 59.4
<i>Internet skills</i>	1 standard deviation below mean 51.4	1 standard deviation above mean 62.2
<i>Time spent online per week</i>	5 hours 47.4	30 hours 63.9

Conclusion

Drawing on a unique data set with unprecedented granularity about the use of social network sites coupled with detailed demographic background information, this study has looked at what types of user characteristics (from among a diverse group of first-year students at an urban public university) are most likely to be associated with different levels of SNS use intensity. Findings suggest that level of engagement is not randomly distributed among the group. Gender is an important factor when it comes to explaining intensity of SNS usage, with women more likely to be intense users of SNSs than men. We also find that context of Internet use may explain one's level of engagement with SNSs; namely, students who do not live with their parents and have more access points in their personal networks have a higher likelihood of using SNSs intensely. Additionally, we find that there is a systematic relationship between hours spent online weekly as well as Web user skills and intensity of SNS usage, suggesting that students who have more Internet experiences and higher online abilities are more likely to be more engaged with SNSs. We are unable to speak to the direction of causality here based on the data set we have. It may well be that more skilled users are more likely to integrate SNSs into their daily routines. However, it may also be that those who spend more time on such sites develop a better understanding of the Internet. There is a good chance that both of these processes are at work, reinforcing each other long term.

While our nuanced data set has allowed us to explore some questions that previous literature has been unable to consider, there are other issues our data are not suited to examine. In particular, the information available here does not allow us to distinguish between the importance of different site designs, affordances and memberships for why some people are more or less likely to become intense users of one SNS over another. However, it is reasonable to

Table 7.11 Probability (%) of frequent social network site usage

	<i>Frequent SNS usage</i>	
	No	Yes
Living with parents	90.2	81.3
Have Net access at friends'/family's home	79.1	86.8
Time spent online per week	5 hours 77.5	30 hours 90.7

expect that such divergences across these services result in different levels of engagement on behalf of users. In particular, if the designs and affordances support certain types of outcomes at varying levels (e.g., civic organizing is easier on one as compared to another), then people will likely embrace the sites that are most supportive of their particular interests. A user who is especially focused on political engagement may expend more energies on building networks on a site that encourages related activities, while a user more intrigued by following the latest artistic trends will spend time on the site that caters to that particular interest best. Future work in this area can apply our proposed SNS usage typology to investigate what factors may lead users to engage with different sites at varying levels of intensity.

In addition to its substantive contributions, this study also has important methodological implications. When examining SNS usage, researchers must be careful to take the extent to which users are engaged with the sites under consideration. Rather than assume that all SNS usage is interchangeable, it is important to recognize that some people have incorporated use of such sites into their everyday lives much more than others. Accordingly, when considering the various social, cultural, political, and psychological implications of time spent on such sites, it is important to establish where people fall in the typology of social network site usage, recognizing that varying levels of usage intensity are not necessarily synonymous.

Notes

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2. The Principle Investigator of this project is not now nor has ever been affiliated with this university in any way other than in the context of this study. Focus on this campus is not due to convenience; rather, it is the result of careful consideration about what type of student population would be most helpful in addressing questions of interest in the overall research project.
3. The survey included a question verifying students' attentiveness to the questionnaire. A small portion of students (3.4%) were identified as not paying attention to question wording, suggesting that they were checking off responses randomly instead of replying to the substance of the questions. The responses of these students have been excluded from the data and analyses presented here so as to minimize error introduced through such respondents.
4. Multinomial logistic regression estimates the likelihood of being in a certain category versus the likelihood of being in another category (i.e., baseline category), while holding all the explanatory variables constant. Researchers can switch the baseline category and repeat the comparison process in order to acquire the estimates of every possible pair of comparisons. Based on the estimated coefficients, we can then generate the predicted probabilities of being a member of each category and interpret the results.
5. Some of those who leave UIC will transfer to other schools and end up graduating elsewhere. Data are not available to establish what percentage of UIC first-years end up leaving college altogether.
6. Students of Native American background have been excluded from these analyses, due to their small number. We also excluded respondents from our regression models if they were missing values on any of the variables used in the analyses.

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