



## **The Effects of Internet Use and Internet Efficacy on Offline and Online Engagement**

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### **Abstract**

While existing research has explored the relationship between Internet use and civic engagement, this study is among the first to examine the effects of general Internet use, social network site use, and Internet efficacy on online and offline civic participation using the 2010 Pew Internet and American Life Project ‘*Social Side of the Internet*’ survey ( $N = 2,303$ ). Results show that general Internet use and social network site use enhance web and wireless participation. However, neither increases offline participation. Individual Internet efficacy enhances both online and offline participation, but group Internet efficacy decreases offline participation. Theoretical and practical implications of the findings of this study for engagement are discussed.

**Keywords:** Internet use, social media use, Internet efficacy, social capital, civic engagement



## **Introduction**

Since Putnam's (1995a; 2000) provocative proposition about the steady decline of social capital and civic engagement, scholars have engaged in lively debate about whether we really are experiencing a civic decline (Schudson, 1999). This debate has also touched on whether mass media contribute to this decline (Putnam, 1995a; 2000), or whether they stem it (Norris, 1996; Shah, McLeod, Yoon, 2001; Shah, Schmierbach, Hawkins, Espino, Donovan, 2002). It has also been suggested that there is a need for research focusing on the types of mediated interpersonal communication citizens are engaged in to better understand their varying levels of both information exposure and participatory behavior (McLeod, Scheufele, & Moy, 1999; Scheufele & Nisbet, 2002).

Research investigating the effects of Internet use on aspects of participation and engagement has provided mixed results. Two perspectives have emerged, suggesting either positive or negative relationships. Effects associated with general Internet use include enhanced network heterogeneity (e.g., Brundridge & Rice, 2009; Hampton, Sessions, & Her, 2011; Moy & Hussain, 2012) and engagement (e.g., Jennings & Zeitner, 2003; Kang & Gearhart, 2010; Nam, 2012). However, these links have been debated and findings have been discredited because enhanced political engagement may be limited to those who already participate in politics.

Social network sites (SNSs) have also emerged as a focus of effects research. Results have demonstrated a positive link between Facebook use and social capital (e.g., Ellison, Lampe, Steinfeld, & Vitak, 2010; Ellison, Steinfeld, & Lampe, 2007; Valenzuela, Park, & Kee, 2009). Investigations into other aspects of engagement have found mixed support as different uses have been linked to different variations of participation. However, all such investigations have demonstrated that reliance on SNSs does have the ability to impact aspects of engagement.

The effects of Internet self-efficacy on civic and political forms of participation has received limited attention. Regardless, there is reason to speculate that this form of efficacy could have important implications for online participation. Although the link to online participation may appear obvious, the link to offline participation cannot be readily assumed. Recently, such



forms of Internet efficacy were found to predict both online and offline political activeness (Nam, 2012). This unique impact of Internet self-efficacy deserves further attention.

Using data from the 2010 "*Social Side of the Internet*" survey conducted by the Pew Research Center's Internet & American Life Project, the current study aims to investigate the crucial role of social capital, Internet use, and Internet efficacy on both online and offline forms of participation. Furthermore, the present work adds to the current body of research by further discriminating among specific forms of social capital, including community satisfaction and interpersonal trust; different uses of the Internet, including the impact of general Internet use and SNS use on engagement; and the influence of both group and individual Internet efficacy in order to assess the impact on online and offline forms of participation.

### **Literature Review**

Understanding the impact that social capital, Internet use, and Internet efficacy may have on participation requires thorough examination of several key concepts. This review encompasses four sections (1) discussion of social capital and civic participation, including examination of the current debate on civic engagement and participation; (2) discussion of Internet use and participation, including a review of SNS use and participation; and (3) exploration of Internet efficacy and participation.

### **Social Capital & Civic Participation**

As defined by Putnam (1995b), social capital encompasses various forms of citizen engagement in community affairs or features of social life such as networks, norms, and trust which enable citizens to efficiently work together. Putnam (1995a; 1995b) famously blamed mass media, especially, television, for the decline in engagement across American society as he claimed "there is reason to believe that deep-seated technological trends are radically "privatizing" or "individualizing" our use of leisure time and thus disrupting many opportunities for social-capital formation" (p. 75). Putnam's argument for the desirable outcome of social capital has been generally accepted. However, his "indictment" of television as the main culprit for the decline of social capital and civic engagement has generated a heated debate. According to Putnam's (1995a) time displacement hypothesis, he believed that television usurps time that people would otherwise spend engaging in democratic participation.



In the time since, the role of the mass media has been at the center of the debated state of civic engagement and Putnam's work has been criticized on both theoretical and empirical grounds. First, some scholars maintained that Putnam's measurement of civic engagement, which was an additive score of all voluntary associations an individual belongs to, did not capture the varied ways in which people participate in associations (e.g., Schudson, 1999). Second, Putnam's gross measure of television use as total viewing time has been criticized for neglecting to differentiate among types of media and content consumed, which may produce differential effects (McLeod, Kosicki, & McLeod, 2002). Finally, Putnam was also criticized for emphasizing the negative effects of media use and ignored decades of mass communication research documenting the positive impact of media use on citizen participation (e.g., McLeod et al., 1999).

### **Internet Use & Civic Participation**

When the Internet became of age in the late 1990s, scholars began to investigate the potential effects of Internet use on civic engagement. Again, research evidence was mixed as some found Internet use to stimulate civic participation (e.g., Shah et al., 2002) while others concluded that Internet use did not translate into participation, especially in the political arena (e.g., Davis, Elin, & Reeher, 2002). In fact, Internet use has even been found to foster passivism and inactivity (Nie & Erbring, 2000).

Similar to research on television, investigations into the relationship between Internet use and participation has provided mixed results. Again, there tends to be two perspectives on the influence of the Internet as findings have suggested both positive and negative relationships. One perspective on Internet use speculates that general use has the ability to enhance network diversity as it offers a place to engage in discussion with a wide array of people (Hampton et al., 2011). Network heterogeneity is generally seen as a heartening effect of Internet use and diverse network development has been suggested to contribute to increased political participation (Kwak, Williams, Wang, & Lee, 2005). Similarly, heterogeneous networks may lead to increased exposure to alternative views and disagreements (Brundridge & Rice, 2009). In this context, citizens can essentially "transcend geographic boundaries and redefine their sense of community" allowing for engagement in discussion (Moy & Hussain, 2012, p. 230).

A direct link between general Internet use and political participation has also been demonstrated. For example, Jennings and Zeitner (2003) found a positive association between Internet use and political participation. As expected, similar results have been found between Internet use and online political activity (e.g., Nam, 2012). Kang and Gearhart (2010) found positive link between civic and political engagement and those who used city websites for specific purposes. However, among these positive results a negative relationship between overall Internet use and political behaviors has also been noted, indicating the link between Internet use and enhanced political participation tends to simply reinforce the offline trends of those already engaged. Similarly, Nam (2012) found Internet use did not effectively attract new participants to be politically active but did enhance political participation of those who already participate in politics.

Other negative consequences of Internet use are concerned with aspects of cynicism, apathy, ignorance, and disengagement. There is also concern that the personal control afforded by the Internet "creates the possibility that people will exercise an increasing tendency for selectivity" (Brundridge & Rice, 2009, p. 145). Furthermore, Internet use is associated with widening the knowledge gap. That is, Internet use does not enhance political participation for all groups. Nam (2012) found disparities of political participation as the more educated and affluent were more likely to participate in online and offline political activities.

Although research addressing the effects of Internet use on participation appears to be well documented, these linkages need to be more closely examined to better understand individual and contextual factors. DiMaggio, Hargittai, Neuman, and Robinson (2001) assert that "the Internet has no intrinsic effect on social interaction and civic participation" and "use tends to intensify already existing inclinations toward sociability or communication involvement, rather than creating them ab initio" (p. 319). That is, although there are positive effects of Internet use, more care should be taken to better understand the circumstantial nature of such effects.

### **Social Network Sites & Civic Participation**

More recently, research has begun to focus on other forms of media including SNSs use. The advent of social media and especially SNSs in the early 21<sup>st</sup> century has generated a great



deal of enthusiasm among the academics on the potential of social media in fostering civic engagement. Much research seems to point to uniformly positive effects of social media in generating social capital and civic engagement (e.g., Ellison et al., 2010; Valenzuela et al., 2009) with the rare exception of Baumgartner and Morris (2010) that found social network sites did not live up to their high expectations of informing youth and increasing their political engagement.

Unlike general Internet use, SNSs provide users with a centralized discussion network of connected others. Although empirical investigations directly investigating the effects of SNSs on participation are limited, a positive relationship between SNS use and network heterogeneity has been noted (e.g., Kim, 2011). As previously discussed, diverse networks are suggested to contribute to increased political participation (Kwak et al., 2005).

Existent research has begun to differentiate among the effects of different types of SNS use. For example, existent research on the use of Facebook has demonstrated a positive link to social capital (e.g., Ellison et al., 2010; Ellison et al., 2007; Valenzuela et al., 2009). Similarly, Valenzuela et al. (2009) found intensity of Facebook use to positively predict civic participation while Facebook group use predicted both political and civic participation. Their study further assessed the effects of belonging to certain types of groups within the online network and found involvement in political and student groups to positively predict political participation while involvement in Facebook groups for on-campus and student organizations was linked to enhanced civic participation. These findings indicate that specialized use of the network may differently impact participation.

Beyond specialized use of SNS, there is also the chance that the use of SNSs may reinforce people's propensity to be engaged. That is, the use of SNSs may simply be another participation avenue for those whom are already engaged offline. For example, Vitak et al. (2010) found political activity on Facebook to be a positive predictor of general political participation. Although the same study found intensity of SNS use was positively related to political activity on Facebook, a negative relationship was found between intensity of Facebook use and general political participation. Importantly, the aforementioned studies

have been conducted with college students, a group which represents the most prominent SNSs users (Rainie, Lenhart, & Smith, 2012).

Research using samples representing a more general population have also suggested that features of SNSs may be associated with increased engagement, but results of these initial research attempts have also been inconsistent. For example, Zhang, Johnson, Seltzer, and Bichard (2010) found reliance on SNSs to be a significant predictor of increased civic participation, but not political participation. Johnson, Zhang, Bichard, and Seltzer (2010), who differentiated between SNSs and YouTube, found reliance on both SNSs and the video-sharing site to be significantly related to both online and offline political participation among politically interested Internet users. Although investigations of SNS use and engagement have not consistently investigated the same uses of SNSs with the same population, there is substantial evidence that SNS use does have the ability to impact aspects of democratic participation.

Existent findings on the effects of SNS use on participation should be carefully scrutinized due to the dynamic nature of the digital environment. For example, Groshek and Dimitrova (2011) found no significant impact of SNS use on voting intention, voter learning, or campaign interest in the 2008 U.S. presidential election. However, in the time since this data was collected the use of SNSs has grown exponentially. As such, acceptance and social significance of engaging in these online networks has also changed. More recently, the use of SNSs during the 2010 Swedish election campaign was found positively linked to offline political participation (Dimitrova, Shehata, Strömbäck, & Nord. in press). In fact, SNS use enhanced offline political participation even when controlling for the influence of political interest, knowledge, and a host of other variables. Although social media use was a strong predictor of participation, so was political interest and past offline political participation, indicating that traditional predictors of participation may simply be reinforced in the SNS environment.

Putnam (1995a) questioned if technology drives a wedge between individual and collective interests. As we can see there have been a multitude of conflicting findings across the realm



of media. Thus, a more appropriate question may have asked which uses of technology drive a wedge between individual and collective interests.

### **Internet Efficacy & Civic Participation**

Discussion of efficacy is necessary when discussing factors that may impact the levels of an individual's engagement. Self-efficacy is defined as one's belief in their own "capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). That is, efficacy reflects the level of belief one has in their ability to achieve something. Self-efficacy is explicitly concerned with what individuals believe they can do with the skills they possess. Efficacy beliefs influence what courses of action people choose to pursue, their goals and commitments to them, and even the amount of effort put forth (Bandura, 2009).

The overarching concept of efficacy can be further divided into specialized types, such as Internet efficacy. Internet efficacy can be defined as one's beliefs about their own ability to use the Internet with focus on what they believe they can accomplish (Eastin&LaRose, 2000). In line with earlier distinctions between low and high self-efficacy (e.g., Bandura 1997), individuals with low Internet efficacy are those that have low levels of confidence, satisfaction, and/or comfort in their ability to use the Internet (Eastin&LaRose, 2000). Individuals with high Internet self-efficacy represent the conceptual opposite as they possess skills that lead to enhanced levels of confidence, satisfaction, and/or comfort. As such, those with low levels of Internet self-efficacy should be less likely to engage with the Internet in the future while those with high levels of Internet self-efficacy should be more likely to use the Internet.

The link between one's personal efficacy and forms of participation has been well documented. Political efficacy, which is closely related to personal efficacy, can be defined as one's sense that their participation can actually make a difference in politics (DelliCarpini, 2004). Although the link between perceptions of Internet self-efficacy and participation is limited, existent research indicates that this form of efficacy may enhance one's participation. For example, Nam (2012) explored the effects of individual political efficacy of the Internet and found this individual characteristic was a significant predictor of political



participation in both online and offline environments. These results indicate that an individual's feeling about their ability to use the Internet for political benefit and empowerment may be capable of translating into both online and offline forms of participation.

### **Research Questions**

Based on the literature review concerning the relationship between social capital and civic participation, we can see that research has produced conflicting findings. Therefore the following research questions were posed to assess the effects of social capital variables on offline civic participation after controlling for influences of demographic variables:

RQ1a: What are the effects of community satisfaction on offline participation?

RQ1b: What are the effects of social interpersonal trust on offline participation?

The following research questions were posed to assess the effects of social capital variables on online civic participation after controlling for influences of demographic variables:

RQ2a: What are the effects of community satisfaction on online participation?

RQ2b: What are the effects of interpersonal trust on online participation?

Empirical investigations on the relationship between media use and civic participation have been well documented. However, research addressing the effects of Internet use on participation has provided mixed results. Further, distinguishing between varying forms of Internet use has been limitedly investigated. The following research questions assess the effects of both general Internet use and SNS use on offline civic participation after controlling for influences of demographic and social capital variables:

RQ3a: What are the effects of general Internet use on offline participation?

RQ3b: What are the effects of SNS use on offline participation?

To investigate the impact of different forms of Internet use on online participation, the following questions examine the effects of general Internet use and SNS use on online civic participation after controlling for demographic and social capital variables:

RQ4a: What are the effects of general Internet use on online participation?

RQ4b: What are the effects of SNS use on online participation?



As noted above, research addressing the effects of Internet efficacy on various aspects of participation is limited but has shown promising results. However, there is need to further assess how one's feelings about their ability to use the Internet for civic purposes impact both online and offline participation. Therefore, we pose the following hypotheses concerning the impact of individual Internet efficacy on participation. Additionally, two research questions investigate the effects of group Internet efficacy on civic participation after controlling for influences of demographic, social capital, and Internet use variables:

H1: Individual Internet efficacy will be positively related to offline participation.

RQ5: What are the effects of group Internet efficacy on offline participation?

H2: Individual Internet efficacy will be positively related to online participation.

RQ6: What are the effects of group Internet efficacy on online participation?

## **METHOD**

### **Data**

Data for this study came from the 2010 '*Social Side of the Internet*' survey from the Pew Internet & American Life Project (Pew, 2010). The theme of the data centers on the role of social network sites in civic group formation and participation (Rainie, Purcell, & Smith, 2011). The fieldwork of this national representative telephone survey with the random-digit dialing techniques was conducted from November 23, 2010 to December 21, 2010 by the Princeton Survey Research Associates International. The interviews were conducted with adults aged 18 and above to both landlines ( $n = 1,555$ ) and cell phone ( $n = 748$ ) with a total of 2,303 respondents. The response rate is 11% for the landline sample and 15.8% for the cellular sample.

### **Measures**

#### **Dependent Variables**

Dependent variables included offline civic participation (*social engagement* and *private engagement*) and online civic participation (*web and wireless civic participation* and *SNS civic participation*). Based on the adaptation from the work of Mascherini, Saltelli, and Vidoni (2007), offline civic participation was divided into *private engagement* and *social engagement*. *Private engagement* refers to individuals' participation in those organizations

that worked closer to their private interests. *Social engagement* refers to individuals' participation in those organizations that aim at serving the community at large.

*Private engagement* was an additive measure of 17 items. Respondents were asked if they were "currently active in any of these types of groups or organizations, or not" such as such as sports or recreation leagues (25.1%), hobby groups or clubs (19.5%), professional or trade associations (23.3%), parent groups or organizations (13.4%), youth groups (10.1%), veterans groups or organizations (8.6%), consumer groups (26.8%), farm organizations (4.9%), travel clubs (6.2%), sports fantasy leagues (7.0%), gaming communities (5.0%), national or local organizations for older adults (20.5%), political parties or organizations (17.6%), labor unions (8.3%), fan groups for a particular TV show, movie, celebrity, or musical performer (5.5%), fan groups for a particular sports team or athlete (9.7%), and fan groups for a particular brand, company or product (3.4%). The scale was dummy coded (0 - *not active*, 1 - *active*). Respondents were asked about their different ways of participation in those organizations such as taking a leadership role, attending meetings or events, contributing money, or volunteering one's time to a group one was active in. The intensity of their active participation in those organizations was also dummy coded (0 - *no*, 1 - *yes*). An individual's intensity of participation in each organization was the sum of one's participation in each organization combined with their different ways of participation. All 17 items were combined to form the *privateengagement* index.

*Social engagement* was an additive measure of 10 items. Respondents were asked if they were "currently active in any of these types of groups or organizations, or not" such as community groups or neighborhood associations (22.2%), church groups or other religious or spiritual organizations (45.3%), performance or arts groups (12.2%), social or fraternal clubs, sororities or fraternities (9.7%), literacy, discussion or study groups (12.5%), charitable or volunteer organizations (25.4%), ethnic or cultural groups (5.5%), support groups for people with a particular illness or personal situation (19.1%), alumni associations (17.8%), and environmental groups (8.8%). Just as was done for *private engagement*, the scale was dummy coded (0 - *not active*, 1 - *active*) and the intensity of their active participation in those organizations was also dummy coded (0 - *no*, 1 - *yes*). Again, an individual's participation in each organization was the sum of one's participation in each organization combined with

their different ways of participation. All 10 items were summed to form the *social engagement* index.

Online civic participation was divided into two groups representing distinct types of online activity. *Web and wireless participation* was an additive measure of four items. Respondents were asked whether in the past 30 days they did the following for various groups they were active in: sent or received email with members of a social, civic, professional, religious or other groups (57%), visited the website of a group (64.5%), read the electronic newsletter or email updates of a group (56.5%), and sent and received text messages with members of a social, civic, professional, religious or other groups (43.0%). These four items were dummy coded (0 - *no*, 1 - *yes*) before being summed to form the *web and wireless participation* index.

*SNS participation* was an additive measure of five items. On the same 2-point scale, respondents were asked whether in the past 30 days they did the following for various groups they were active in: contributed to an online discussion or message board for an organization (22.2%), posted news about a group on a social networking site like Facebook (27.9%), read updates or message on a social networking site like Facebook about a group (63.9%), posted news on Twitter about a group (23.8%), and read updates and posts on Twitter about a group (65.5%). These five items were dummy coded (0 - *no*, 1 - *yes*) before being summed to form the *SNS participation* index.

### **Independent Variables**

Independent variables included social capital, Internet use, Internet efficacy, and demographic variables that served as control variables. *Social Capital*. Two items comprised the social capital measures. *Community satisfaction* represented one's overall satisfaction with their community. It was measured on a 4-point scale (1 - *excellent*, 2 - *good*, 3 - *only fair*, 4 - *poor*) that was reverse coded. In general, respondents rated their community as good ( $M = 3.23$ ,  $SD = .78$ ). *Interpersonal trust* was a single item measure of whether the respondent agreed that “most people can be trusted” (50.6%) or “you can’t be too careful” (49.4%). This item was dummy coded (0 - *you can’t be too careful*, 1 - *most people can be trusted*).



*Internet Use.* Two different measures of Internet use were used in this study. *General Internet use* was an additive measure of two items. Respondents were asked how often they used the Internet and email at home or at work on a scale of 1 (*several times a day*) to 7 (*never*). The scale was reverse coded before being summed to form the *general Internet use* index. On average, respondents used the Internet and email from home about once a day ( $M = 5.65$ ,  $SD = 1.69$ ) and used the Internet and email at work one to two days a week ( $M = 3.86$ ,  $SD = 2.82$ ). Respondents were also asked whether they used MySpace, Facebook, or LinkedIn (57.7%) and Twitter (10.6%) on a 2-point scale that was dummy coded (0 - *no*, 1 - *yes*) before being summed to form the *SNS use* index.

*Internet Efficacy.* Two types of Internet efficacy were used in this study. *Group Internet efficacy* was an additive measure of nine items. Respondents were asked for those civic groups they were active in, thinking about how those groups used the Internet, whether the Internet had a major, minor, or no impact at all on the ability of these groups to “recruit new members” ( $M = 2.39$ ,  $SD = .71$ ) “impact local communities” ( $M = 2.38$ ,  $SD = .70$ ) “impact society at large” ( $M = 2.53$ ,  $SD = .67$ ) “communicate with members” ( $M = 2.64$ ,  $SD = .64$ ) “find people to take leadership roles” ( $M = 2.18$ ,  $SD = .70$ ) “organize activities” ( $M = 2.50$ ,  $SD = .69$ ) “raise money” ( $M = 2.41$ ,  $SD = .71$ ) “draw attention to an issue” ( $M = 2.56$ ,  $SD = .67$ ) and “connect with other groups” ( $M = 2.53$ ,  $SD = .69$ ). This variable was measured on a 3-point scale (1 - *major impact*, 2 - *minor impact*, 3 - *no impact*) and reverse coded so the higher number indicated more impact before the nine items were summed to form the *group Internet efficacy* index.

Similarly, *individual Internet efficacy* was an additive measure of respondents were asked whether they thought that the Internet had played a major, minor, or no impact to “find social, civic, professional, religious or spiritual groups that match your interests” ( $M = 2.04$ ,  $SD = .82$ ) “invite friends and acquaintances to join social, civic, professional, religious or spiritual groups you are active in” ( $M = 2.00$ ,  $SD = .79$ ) “keep up with news and information from the social, civic, professional, religious or spiritual groups you are active in” ( $M = 2.33$ ,  $SD = .77$ ) “organize activities for the social, civic, professional, religious or spiritual groups you are active in” ( $M = 2.13$ ,  $SD = .81$ ) “contribute money to social, civic, professional, religious or spiritual groups you are active in” ( $M = 1.78$ ,  $SD = .77$ ) “volunteer your time to social, civic, professional, religious or spiritual groups you are active in” ( $M = 1.84$ ,  $SD = .76$ ) and

“create your own social, civic, professional, religious or spiritual groups” ( $M = 1.78$ ,  $SD = .81$ ). This variable was measured on the same 3-point scale as *group Internet efficacy*. Again, it was reverse coded before the seven items were summed to form the *individual Internet efficacy* index.

*Demographic Variables.* Close to 54.1 percent of the sample respondents were female. On average, respondents were 50 years old ( $SD = 17.99$ ). Respondents on the whole attended some college ( $SD = 1.66$ ). Of the respondents, the majority were Caucasian (78.2%), followed by Black (12.2%), Asian/Pacific Islander (1.8%), mixed race (2.2%), Native American (1.6%), and other (1.0%). Race was dummy coded (0 - *other*, 1 - *Caucasian*). With respect to *ideology*, on average, respondents were moderate conservative ( $M = 2.80$ ,  $SD = 1.04$ ). The average 2009 family income was \$40,000 to under \$50,000 ( $SD = 2.42$ ).

### Data Analysis Strategies

Hierarchical regression analyses were performed to answer the research questions of this study to determine which variables were significant predictors of both online civic participation (web and wireless civic participation and SNS civic participation) and offline civic participation (social engagement and private engagement). Demographic variables were entered as the first block, followed by social capital variables, general Internet use and SNS use, with group Internet efficacy and individual Internet efficacy being entered as the final block.

### Results

Before addressing the aforementioned research questions and hypotheses, the influence of demographic variables on offline civic participation (i.e., private and social engagement) and online civic participation (i.e., Web/wireless and SNS participation) were addressed. Concerning the influence of demographics on offline civic participation, education led to both private engagement ( $\beta = .12$ ,  $p < .001$ ) and social engagement ( $\beta = .13$ ,  $p < .001$ ). Similarly, income had a positive influence on private engagement ( $\beta = .10$ ,  $p < .001$ ) and social engagement ( $\beta = .10$ ,  $p < .001$ ). Caucasians were less likely to participate in private-oriented engagement ( $\beta = -.06$ ,  $p < .01$ ) and less likely to participate in social-oriented engagement ( $\beta = -.08$ ,  $p < .001$ ). In a similar fashion, liberals were less likely to participate in

private-oriented engagement ( $\beta = -.09, p < .001$ ) and less likely to participate in social-oriented engagement ( $\beta = -.09, p < .001$ ). Females were more likely to participate in social-oriented engagement ( $\beta = .05, p < .05$ ) but not private-oriented engagement. Age did not have significant influence on either private engagement or social engagement.

Concerning the influence of demographic variables on online civic participation, older people were more likely to engage in web and wireless participation ( $\beta = .08, p < .05$ ) but not SNS participation. More educated individuals were more likely to engage in web and wireless participation ( $\beta = .05, p < .05$ ) but less likely to engage in SNS participation ( $\beta = -.05, p < .05$ ). Wealthy people were more likely to engage in SNS participation ( $\beta = .08, p < .01$ ) but not web and wireless participation. Caucasians were more likely to engage in web and wireless participation ( $\beta = .05, p < .05$ ) but not SNS participation. Neither gender nor ideology had any influence on either web and wireless participation or SNS participation.

RQ1a and RQ1b examined the influence of social capital variables on offline participation. RQ1a addressed the effects of community satisfaction on offline participation. According to Table 1, satisfaction with one's community had no significant influence on private or social engagement. RQ1b asked about the effects of interpersonal trust on offline participation. After controlling for influences of demographic variables, the more trust people had in generalized others, the more they participated in those organizations that worked closer to the private interest of people (private engagement) ( $\beta = .06, p < .01$ ) and the more they were involved in those organizations that aim at serving the community and society at large (social engagement) ( $\beta = .06, p < .01$ ).

RQ2a investigated the effects of community satisfaction on online participation while RQ2b addressed the effects of interpersonal trust on online participation. As seen in Table 2, after controlling for demographic influence, neither community satisfaction nor interpersonal trust had any significant influence on web and wireless participation or SNS participation.

The third research question explored the impact of Internet use variables on offline participation. After controlling for influences of demographic and social capital variables, RQ3a examined the effects of general Internet use on offline civic participation. As seen in Table 1, general Internet use had no significant influence on either private engagement or





social engagement. RQ3b addressed the impact of SNS use on offline civic participation. In the same way, SNS use was not a significant predictor of either private engagement or social engagement.

The fourth research question examined the influence of Internet use variables on online participation. After controlling for influences of demographic and social capital variables, RQ4a examined the effects of general Internet use on online participation. According to Table 2, general Internet use had significant positive effect on web and wireless participation ( $\beta = .10, p < .001$ ). However, general Internet use did not exert significant influence on SNS participation. RQ4b examined the effects of SNS use on online participation. Results indicate that SNS use had significant positive effect on web and wireless participation ( $\beta = .05, p < .05$ ). However, SNS use did not exert significant influence on SNS participation.

H1 predicted that individual Internet efficacy would be positively related to offline civic participation. H1 was confirmed. After controlling for influences of demographic, social capital, and Internet use variables, results showed individual Internet efficacy had a positive effect on both private engagement ( $\beta = .10, p < .001$ ) and social engagement ( $\beta = .10, p < .001$ ). RQ5 investigated the impact of group Internet efficacy on offline participation. As seen from Table 1, the more people thought the Internet had a major impact on the ability of the groups to do their jobs, the less likely they were to engage in private-oriented participation ( $\beta = -.07, p < .01$ ) and less likely they were to engage in social-oriented participation ( $\beta = -.08, p < .001$ ).

H2 predicted that individual Internet efficacy would be positively related to online civic participation. H1 was confirmed. After controlling for influences of demographic, social capital, and Internet use variables, results showed individual Internet efficacy had a positive impact on both web and wireless participation ( $\beta = .26, p < .001$ ) and SNS participation ( $\beta = .06, p < .05$ ). RQ6 explored the influence of group Internet efficacy on online participation. According to Table 2, group Internet efficacy had no significant influence on either web and wireless participation or SNS participation.

TABLES 1-2 ABOUT HERE



## **Discussion**

The purposes of this research were to examine (1) the effects of both general Internet use & SNSs use, (2) the effects of individual and group Internet efficacy on online and offline civic participation, and (3) the differential predictors and antecedents of online and offline civic participation. The findings of this study shed light on the differential roles of general Internet use and SNS use and provide rare insight on the effects of individual and group Internet efficacy on online and offline civic participation as well as the differences between online and offline civic participation, including their different predictors and antecedents.

### **General Internet Use, SNS Use, and Online &Offline Participation**

General Internet use is found to increase web and wireless participation but not SNS participation. General Internet use is not a significant predictor of offline participation, either, contradicting results of Jennings and Zeitner (2003), Shah et al. (2002), Davis et al., (2002) and Nam (2012). SNS use is found to enhance web and wireless civic participation but not SNS civic participation. SNS use does not exert any influence on offline private engagement or social engagement, contradicting the findings of Ellison et al. (2010) and Valenzuela et al. (2010), but in keeping with results from Baumgartner and Morris (2010) that there is much hype surrounding the role of SNSs in stimulating democratic participation. In sum, there are limitations of what SNSs can do in politics and civic engagement. The notion of SNSs and other forms of social media as panacea for democratic renewal is grossly exaggerated.

### **Internet Efficacy and Online &Offline Participation**

This study is one of very few that examines the role of Internet efficacy in online and offline civic participation. Internet efficacy, people's perceptions of Internet's ability in participation and problem solving, has been found to enhance both online and offline political participation (Nam, 2012). This study is arguably one of the first to look at both individual Internet efficacy and group Internet efficacy (perceptions about their civic groups' ability to use the Internet for various purposes) and their influences in online and offline civic participation. Findings of this study suggest that individual Internet efficacy has a positive impact on both offline and online participation, in keeping with results of Nam (2012). However, group Internet efficacy has a negative influence on both offline private and social engagement and has no significant influence on either web and wireless participation or SNS participation.

This seems to suggest that people's sense of group Internet efficacy may give them a false sense of being active in civic participation while it actually is not the case. This also indicates that there are qualitative differences between online civic participation and offline civic participation and one mode of participation is not necessarily transferable to another.

### **Antecedents of Online and Offline Civic Participation**

To some extent, significant predictors differ between online and offline civic participation, indicating the meaningful differentiation between the online and offline modes of participation. As expected, interpersonal trust enhances both offline social engagement and private engagement. However, interpersonal trust appears to make no difference in web and wireless civic participation or SNS civic participation.

Online and offline participation also have different demographic antecedents. Liberals are less likely to be involved in offline participation but ideology has no significant influence on online participation; Caucasians are less likely to engage in offline participation (private and social engagement); however, Caucasians are more involved in web and wireless participation. Income is a positive predictor of both private and social engagement and SNS participation. As expected, education enhances both private and social engagement, increases web and wireless participation, but decreases SNS participation. Females are more active in social engagement but not active in either of online participation. In short, gender, education, race, and ideology make a difference in predicting online and offline participation.

### **Conclusion**

Our overall conclusion is that general Internet use and SNS use have no impact on offline civic participation and the influence of SNS use is limited to web and wireless participation. This study makes rare contribution to be the first to uncover the positive influence of individual Internet efficacy on online and offline participation and negative impact of group Internet efficacy on people's offline engagement.

The limitations of this study lie in the inherent disadvantage of doing secondary analysis of existing dataset though Pew Research Center's Internet & American Life Project consistently provides quality survey data for scholarly use. One major weakness of secondary analysis is



that users are constrained in the types of research questions that can be examined and are limited to the existing variables because there is no way to go back for additional information (Wimmer & Dominick, 2006). There are many good measures of online and offline civic participation in the December 2010 “Social Side of the Internet” survey dataset. However, the general Internet use measure asks how often respondents use Internet or email at home and at work and the SNS use measures are simple “yes” or “no” questions about respondents’ Facebook, Twitter, or LinkedIn use. Neither measurement includes what content respondents use. Future research should engage thorough explication of SNS use, disaggregate them into context-specific uses and assess the potential differential effects of SNS use and general Internet use and specific types of Internet and SNS *content* on engagement (e.g., Dimitrova et al., in press). Because the Pew Research Center’s Internet & American Life Project examines strictly Internet’s influence in social and civic life, future research should not examine Internet use in isolation but include both traditional media use, general Internet use, and SNS use to get a more robust picture of the influence of Internet use in both civic and political participation.

Future research also needs to explore different and/or unique motives for using different SNSs from a uses and gratifications perspective (Kaye, 2010) and examine how different or unique motives influence civic participation. The small amount of variance accounted for in offline and online participation points to the weaknesses of this study. Future research can explore whether people’s reasons to be active in social, civic, and spiritual groups and the reasons people leave those groups can moderate effects of Internet use and SNS use on civic and political participation. This dataset contains many innovative ways to assess different forms of participation in various social, religious, cultural and other organizations. Future studies may consider weighting types of involvement differently to explore the nuances and qualitatively different nature of various forms of participation. And finally, future studies need to further delineate the relationships between online and offline participation, examine both the strengths and weaknesses of online participation because online participation, especially social media participation, is more about sharing information and socializing with more entertainment purposes, and may not live up to its hyperbole.



## References

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2009). Social cognitive theory of mass communication. In: J. Bryant & M. B. Oliver (Eds.), *Media effects: Advances in theory and research* (pp. 94-124). New York: Routledge.
- Baumgartner, J. C., & Morris, J. S. (2010). MyFaceTube politics: Social networking web sites and political engagement of young adults. *Social Science Computer Review*, 28(1), 24-44. doi: 10.1177/0894439309334325
- Brundidge, J., & Rice, R. E. (2009). Political engagement online: Do the information rich get richer and the like-minded get more similar? In: A. Chadwick & P. N. Howard (Eds.), *Routledge Handbook Internet Politics* (pp. 144-156). New York: Routledge.
- Davis, S. Elin, L., & Reeher, G. (2002). *Click on democracy: The Internet's power to change political apathy into civic action*. Boulder, CO: Westview Press.
- DelliCarpini, M. X. (2004). Mediating democratic engagement: The impact of communications on citizens' involvement in political and civic life. In L. L. Kaid (Ed.), *Handbook of Political Communication Research* (pp. 400-434). Mahwah, NJ: Lawrence Erlbaum Associates.
- DiMaggio, P., Hargittai, E., Neuman, W. R., & Robinson, J. P. (2001). Social implications of the Internet. *Annual Review of Sociology*, 27, 307-336. doi: 10.1146/annurev.soc.27.1.307
- Dimitrova, D. V., Shehata, A., Strömbäck, J., & Nord, L. W. (2014). The effects of digital media on political knowledge and participation in election campaigns: Evidence from panel data. *Communication Research*, 41, 95–118. doi: 10.1177/0093650211426004
- Eastin, M. S., & LaRose, R. (2000). Internet self-efficacy and the psychology of the digital divide. *Journal of Computer-Mediated Communication*, 6(1) <http://jcmc.indiana.edu/vol6/issue1/eastin.html> doi: 10.1111/j.1083-6101.2000.tb00110.x
- Ellison, N. B., Lampe, C., Steinfeld, C., & Vitak, J. (2010). With a little help from my friends: How social network sites affect social capital and processes. In: Z. Papacharissi (Ed.), *A networked self: Identity, community and culture on social network sites* (pp. 124-145). New York: Routledge.



- Ellison, N. B., Steinfeld, C., & Lampe, C. (2007). The benefits of Facebook “Friends:” Social capital and college students’ use of online social network sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. doi: 10.1111/j.1083-6101.2007.00367.x
- Groshek, J. & Dimitrova, D. V. (2011). A cross-section of voter learning, campaign interest and intention to vote in the 2008 American election: Did Web 2.0 matter? *Communication Studies Journal*, 9, 355-375. doi: 10.1080/15456870.2013.773484
- Hampton, K. N., Sessions, L. F., & Her, E. J. (2011). Core networks, social isolation, and new media: How Internet and mobile phone use is related to network size and diversity. *Information, Communication & Society*, 14(1), 130-155. doi: 10.1080/1369118X.2010.513417
- Jennings, M. K., & Zeitner, V. (2003). Internet use and civic engagement. *Public Opinion Quarterly*, 67(3), 311-334. doi: 10.1086/376947
- Johnson, T. J., Zhang, W., Bichard, S. L., & Seltzer, T. (2010). United we stand? Online social network sites and civic engagement. In: Papacharissi Z (ed.) *A networked self: Identity, community and culture on social network sites* (pp. 185-207). New York: Routledge.
- Kang, S., & Gearhart, S. (2010). E-Government and civic engagement: How is citizens’ use of city websites related with civic involvement and political behaviors? *Journal of Broadcasting & Electronic Media*, 54(3), 443-462. doi:10.1080/08838151.2010.498847
- Kaye, B. K. (2010). Between Barack and a net place: Motivations for using social network sites and blogs for political information. In Z. Papacharissi (Ed.), *A networked self: Identity, community and culture on social network sites* (pp. 208-231). New York: Routledge.
- Kwak, N., Williams, A., Wang, X., & Lee, H. (2005). Talking politics and engaging politics: An examination of the interactive relationships between structural features of political talk and discussion engagement. *Communication Research*, 32, 87-111. doi: 10.1177/0093650204271400
- Kim, Y. (2011). The contribution of social network sites to exposure to political difference: The relationship among SNSs, online political messaging, and exposure to cross-cutting perspectives. *Computers in Human Behavior*, 27(2), 971-977. doi: 10.1016/j.chb.2010.12.001



- McLeod, D.M., Kosicki, G. M., & McLeod, J. M. (2002). Resurveying the boundaries of political communication effects. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (pp. 215-267). Mahwah, NJ: Lawrence Erlbaum Associates.
- McLeod, J. M., Scheufele, D. A., & Moy, P. (1999). Community, communication and participation: the role of mass media and interpersonal discussion in local political participation. *Political Communication*, 16(3), 315-336. doi: 10.1080/105846099198659
- Mascherini, M., Saltelli, A., & Vidoni, D. (2007). Participation in Europe: One-size-fits-none. Institute for the Protection and Security of the Citizen. [http://www.eurosfair.prd.fr/7pc/doc/1236266701\\_participation\\_europe.pdf](http://www.eurosfair.prd.fr/7pc/doc/1236266701_participation_europe.pdf)
- Moy, P., & Hussain, M. M. (2011). Media influences on political trust and engagement. In L. Jacob & R. Y. Shapiro (Eds.), *Oxford handbook of American public opinion and the media* (pp. 220-235). New York: Oxford University Press.
- Nam, T. (2012). Dual effects of the internet on political activism: Reinforcing and mobilizing. *Government & Information Quarterly*, 29(S1), S90-S97. doi: 10.1016/j.giq.2011.08.010
- Nie, N., & Erbring, L. (2000). *Internet and society: A preliminary report*. [http://www.stanford.edu/group/siqss/Press\\_Release/internetStudy.htm](http://www.stanford.edu/group/siqss/Press_Release/internetStudy.htm)
- Norris, P. (1996). Does television erode social capital? A reply to Putnam. *Political Science & Politics*, 29(3), 474-480.
- Putnam, R. D. (1995a). Bowling alone: America's declining social capital. *Journal of Democracy*, 6(1), 65-78.
- Putnam, R. D. (1995b). Tuning in, tuning out: The strange disappearance of social capital in America. *PS: Political Science & Politics*, 28(4), 664-683.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Touchstone.
- Rainie, L., Purcell, K., & Smith, A. (2011). The social side of the Internet. [http://www.pewinternet.org/~media/Files/Reports/2011/PIP\\_Social\\_Side\\_of\\_the\\_Internet.pdf](http://www.pewinternet.org/~media/Files/Reports/2011/PIP_Social_Side_of_the_Internet.pdf)



- Rainie, L., Lenhart, A., & Smith, A. (2012). The tone of life on social networking sites. [http://www.pewinternet.org/~media/Files/Reports/2012/Pew\\_Social%20networking%20climate%202.9.12.pdf](http://www.pewinternet.org/~media/Files/Reports/2012/Pew_Social%20networking%20climate%202.9.12.pdf)
- Scheufele, D. A., & Nisbet, M. (2002). Being a citizen online: New opportunities and dead ends. *The International Journal of Press/Politics*, 7(3), 55-75. doi: 10.1177/1081180X0200700304
- Schudson, M. (1999). *The good citizen: A history of American civic life*. Cambridge, MA: Harvard University Press.
- Shah, D. V., McLeod, J. M., & Yoon, S. (2001). Communication, context and community: An exploration of print, broadcast, and Internet influences. *Communication Research*, 28, 464-506. doi: 10.1177/009365001028004005
- Shah, D. V., Schmierbach, M., Hawkins, J., Espino, R., & Donovan, J. (2002). Nonrecursive models of Internet use and community engagement: Questioning whether time spent online erodes social capital. *Journalism and Mass Communication Quarterly*, 79(4), 964-987. doi: 10.1177/107769900207900412
- Shen, F., Wang, N., Guo., Z., & Guo, L. (2009). Online network size, efficacy, and opinion expression: The impact of Internet use in China. *International Journal of Public Opinion Research*, 21, 451-476. doi:10.1093/ijpor/edp046
- Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site? Facebook use and college students' life satisfaction, trust, and participation. *Journal of Computer-Mediated Communication*, 14(4), 875-901. doi: 10.1111/j.1083-6101.2009.01474.x
- Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N., & Lampe, C. (2011). It's complicated: Facebook users' political participation in the 2008 election. *Cyberpsychology, Behavior & Social Networking*, 14(3), 107-114. doi:10.1089/cyber.2009.0226
- Wimmer, R. D., & Dominick, J. R. (2006). *Mass media research: An introduction* (8<sup>th</sup> ed.). Belmont, CA: Thomson Learning.
- Zhang, W., Johnson, T. J., Seltzer, T., & Bichard, S. (2010). The revolution will be networked: The influence of social networking sites on political attitudes and behavior. *Social Science Computer Review*, 28(1), 75-92. doi: 10.1177/0894439309335162





**Table 1**

Hierarchical Regression Analyses Predicting Offline Civic Participation – *Private Engagement and Social Engagement*

Independent Variables	Private Engagement	Social Engagement
<b>Demographics</b>		
Age	.01	.02
Gender (female coded higher)	.03	.05*
Education	.12***	.13***
Income	.10***	.10***
Race (Caucasian coded higher)	-.06**	-.08***
Ideology (liberal coded higher)	-.09***	-.09***
<b>R<sup>2</sup> (%)</b>	<b>5.5***</b>	<b>5.8***</b>
<b>Social Capital Variables</b>		
Community satisfaction	.03	.03
Interpersonal trust	.06**	.06**
<b>Incremental R<sup>2</sup> (%)</b>	<b>.5**</b>	<b>.5**</b>
<b>Internet Use Variables</b>		
General Internet use	.03	.03
SNS use	-.01	-.02
<b>Incremental R<sup>2</sup> (%)</b>	<b>.3*</b>	<b>.2 ns</b>
<b>Internet Efficacy Variables</b>		
Individual Internet efficacy	.10***	.11***
Group Internet efficacy	-.07**	-.08***
<b>Incremental R<sup>2</sup> (%)</b>	<b>.8***</b>	<b>1.1***</b>
<b>Total R<sup>2</sup> (%)</b>	<b>7.1***</b>	<b>7.7***</b>

*Note:* The beta weights are final standardized regression coefficients.

\* p<.05      \*\* p<.01      \*\*\* p < .001

**Table 2**  
 Hierarchical Regression Analyses Predicting Online Civic Participation –  
*Web and wireless participation and social network participation*

Independent Variables	Web wireless Participation	and SNS Participation
<b>Demographics</b>		
Age	.08***	.02
Gender (female coded higher)	.02	-.02
Education	.05*	-.05*
Income	.0	.08**
Race (Caucasian coded higher)	.05*	-.01
Ideology (liberal coded higher)	-.03	.001
<b>R<sup>2</sup> (%)</b>	<b>1.6***</b>	<b>.7*</b>
<b>Social Capital Variables</b>		
Community satisfaction	.001	.04
Interpersonal trust	.003	.01
<b>Incremental R<sup>2</sup> (%)</b>	<b>0</b>	<b>.2 ns</b>
<b>Internet Use Variables</b>		
General Internet use	.10***	-.01
Social network sites use	.05*	-.01
<b>Incremental R<sup>2</sup> (%)</b>	<b>4.1***</b>	<b>0</b>
<b>Internet Efficacy Variables</b>		
Individual Internet efficacy	.26***	.06*
Group Internet efficacy	-.02	-.02
<b>Incremental R<sup>2</sup> (%)</b>	<b>5.2***</b>	<b>.3*</b>
<b>Total R<sup>2</sup> (%)</b>	<b>10.9***</b>	<b>1.2*</b>

*Note:* The beta weights are final standardized regression coefficients.



\*  $p < .05$

\*\*  $p < .01$

\*\*\*  $p < .001$