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Bowling Online: The Internet and the New Social Capital*

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Abstract:

The decline thesis proponents in the social capital literature have largely ignored the fastest growing venue for new social capital formation – the Internet. We argue that the Internet is making a larger impact than the current research acknowledges. Using survey data from the Pew Internet & American Life Project combined with a survey of college students, we confirm a strong positive relationship between online social networking and political participation. Further, we present evidence that, at least in 2008 election, there was a bias toward voting for Democrats among those who utilized online social networking services including Facebook and Twitter. The implications of these results are discussed.

*An earlier version of this paper was presented at the 2009 Annual Meeting of the Kentucky Political Science Association. This is a revised version of that manuscript which was published in our book, Rebooting American Politics: The Internet Revolution (Rowman & Littlefield).

Robert Putnam (1995A, 1995B, 2000) makes the sweeping claim that decaying social capital, or the interconnectedness between people, is causing a decline in political participation. Further, that as a result the viability of democracy is threatened. While many have challenged this premise (Althaus 1998; Arneil 2006; McDonald and Popkin 2001; Portes 1998), we offer a different perspective. Rather, we suggest that the Internet is shaping a new kind of political participation and engagement. It is creating networks and interactivity on scales that are larger in scope and implication than at any time in American history. Thus, we present an alternative view of the American political future that is substantively different from the theories of declining participation and lower rates of belief in the system that have dominated the scholarship within political behavior. Concurring with Putnam, we also suggest that democracy is rooted in an understanding of social networks and communicated ideas but believe that, potentially, the Internet is a solution to decaying social capital and the decline of political participation. It promotes social capital through networking with a speed and interactivity and versatility that were never before possible. While the ultimate implications of this modern Internet society are and will be unclear for some time, the initial data suggest that there is a far more rich and diverse engagement of people with government than political scientists have been willing to concede.

Specifically, the findings presented here suggest several things. First, people are networking on the Internet in variety of different ways including social network sites, emailing, and blogs. Second, the degree to which people are doing so varies across demographics. This variation is fairly consistent across the national sample and student sample we utilize here. Third, and most central to the premise here, heightened social networking on the Internet is positively related to political participation, both voting and broadly defined, in both datasets even when controlling for traditional predictors of such. Finally, for exploratory purposes, we look at the

possibility that social networking could actually be related to vote choice. Interestingly, we find that among the typically young respondents in the student data, those who do more networking on the Internet are more likely to vote for Democrats. Before moving on to the analysis, we present a theory as to the likely impact of the Internet on participation and discuss the literature that has explored similar questions.

Rethinking the Participation Puzzle

Within this literature, perhaps the most widely disseminated and durable explanation of the continued viability of democratic government and its more recent decline is Robert Putnam's (1995A, 1995B, 2000) theory of social capital. Putnam contends that democracies are dependent on social capital or social connections that generate trust. "Social capital" is defined as the "norms of reciprocity and networks of civil engagement" which are created by participation in groups such as civil organizations (1995A: 167). People, engaging with each other though social and civic groups, create bonds tying and investing them into the greater society. It also works well in providing the mechanism for the transmission of information along the lines theorized by Page and Shapiro (1992) and Popkin (1991). Isolated people cannot share experiences and make informed aggregate decisions. Nor are they able to develop working heuristic shortcuts. Some have suggested that the Internet may stimulate participation by increasing voter information (Tolbert and McNeal 2003). Social networking via the Internet may be the impetus for increasing voter information. Returning to the original puzzle, social capital has become a popular lens to use in describing the perceived decline in turnout and participation in the U.S. electoral system. Various measures have been used to illustrate that the United States has managed to combine declining turnout with increasingly unbalanced voting electorates that over-represent the upper classes (Burnham 1987; Leighley and Nagler 1992; Rosenstone and Hansen 1993). These

observations dovetail with Putnam's explanation that the decline of social capital, as measured in large part through decreasing participation in civic groups and civic activities, is leading to fewer voters and a less viable democracy. Putnam presents many factors that may or may not be hurting social capital, but he saves particular emphasis for the negative role of television which correlates with anti-civic behavior. The underlying proposition is that only though the revival of civic groups such as the once popular bowling league can the foundations of American democracy be stabilized (Putnam 1995B, 2000).

Before addressing Putnam's chief assumptions, it is noteworthy that while the decline thesis has been dominant within the literature, it is not unchallenged. There is some suggestion that both the perceived lack of information and the progressively lesser turnout are produced by poor measures rather than true representations of trends (Althaus 1998; McDonald and Popkin 2001; Achen 1975). Nonetheless, it is beyond the scope of this article to again take-up the methodological debate. We attack the underlying theoretical premise itself. The major problem with the decline thesis itself is that it presumes a fairly static environment and an unchanging greater society.

Presuming for a moment, that Putnam has correctly identified that shared interaction and engagement is foundational for democracy, his static view of human interaction leads to a faulty prescription. How people interact and engage with each other is not the same today as it was immediately after World War II. In searching for evidence of these phenomena, Putnam seeks out measures based on civic institutions that are either no longer extant or are in serious decline leading him to predict a less optimistic democratic future. We suggest that any measure of civic engagement that relies on an analysis of the means of interaction is flawed. For example, a measure of social interaction could be done by counting the number of conversations an

individual has with different people within a day. If one were to measure these conversations by face to face communication the trend would be stark. After the invention and dissemination of the telephone, the measure would surely show decline, even if in reality, people were speaking to each other with greater frequency by means of telecommunication.

Challenging the Decline Thesis

The difficulty with assessing any theory of participation is in making sure that what is measured is a fair representation of how people engage each other during a fixed temporal period. Yet, nothing remains fixed over time. Technology growth is affecting the way that government goes about its tasks in almost every aspect. While there is little argument that the Internet has changed the nature of political campaigning, it often is difficult to measure this change. Thus, the impact often is addressed more speculatively rather than with empirical data.[1]

If one is to take issue with Robert Putnam's prevalent theory that a disconnected society is causing a decline in American democracy, the first issue has to be the measure. The continued

[1] The question of whether Internet use is related to political participation has been explored using empirical data but primarily not within the U.S. context. Both De Vreese (2007) and Vromen (2007) found that online activities are positively related to political participation in Holland and Australia, respectively. Rice and Katz (2004) do find a relationship between longtime Internet usage and offline forms of political activity in the U.S. but they do not look specifically at the effect of social networking on political participation. None of these studies are framed within social networking theory. That said, other researchers have also identified a relationship between online social networking and political participation/civic engagement in the United States (Bode 2011; Gainous and Wagner 2011; Pasek, More, and Romer 2009; Valenzuela, Park, and Kee 2009).

disengagement of Americans from the political system is the subject of significant research. Supporting Putnam's approach are broad measures of participation. We are witnessing declining participation, declining voting patterns and lower rates of belief in the system (Rosenstone and Hansen 1993). In short, the American Democratic Model is threatened and many view the likely future with pessimism based on these trends. We propose that the Internet may be the solution to reconnecting society. Scholars have theorized that institutional structure can lead to lower rates of turnout and participation. More directly, the volume of elections at multiple levels hurts both the ability of citizens to stay informed as well as their ability to remain engaged. People vote because they wish to influence public policy so elections with low electoral salience result in low turnout (Franklin 1996). Low turnout can be the product of an institutional structure which inhibits turnout and leads to socioeconomic factors playing a larger role (Powell 1986).

In Putnam's view, social capital is part of the solution to the institutional limitations on participation. When one is engaged with their neighbors and invested in their communities, there is a greater willingness to bear the burden and costs associated with participation even where the elections have lower salience and greater frequency. The declining social capital is leading to less participation (Putnam 1995A, 1995B, 2000). In fact, this isolation thesis is not limited to civic groups but suggested to be a cause of declining turnout because of the nature of political campaigns. Gerber and Green (2000) assert that turnout decline is the result of lower amounts of face-to-face mobilization, not mobilization in general. The modern campaign which is dominated by television and exposure to negative advertising reduces intention to vote and lowers political efficacy (Ansolabehere et al. 1994).

We suggest that this literature misses the changing nature of society itself and fails to measure nontraditional means of communication. By reconnecting not just people and

information, but people to people, the Internet recreates the missing elements in the participation model. The Internet campaign changes the dynamic of the election. By increasing the volume of information easily accessible, it changes the nature and scope of institutional limitations. The difficulty in becoming informed is reduced making turnout and participation more likely. More directly, if the cost in time and effort of elections are keeping people from participating, the cost savings of the online community can and should reverse that trend among the most adept Internet users and increase overall participation as the technology penetrates larger groups. Finally, the Internet bypasses the negative campaign model by offering an alternative to the sound byte approach that can be both comprehensive and interactive. Early studies suggest that if targeted and presented correctly, the Internet has the potential to reverse the regular disinterest among younger voters (Lupia and Philpot 2007). The Internet is such a versatile medium that advances such as Web 2.0 allow users to not only choose the content they would like to access, but create the user experience with the content of choice delivered in multiple formats ranging from text to video, to even multi-layered discussion forums. The conversation and interaction on the Internet can vary widely based on the device used and the demands or desires of the users. It can range from the dissemination of short messages using Twitter to lengthy and responsive blog postings or even video messages using websites like *Youtube* or even social websites like *Facebook* where fan pages and status updates can become forums for political debate or just information sharing.

Putnam suggests that in rebuilding social capital through civic engagement the decline in participation can be curtailed. Yet, Putnam's scope of participation is too limited. The Internet can be the venue for modern social capital. While bowling leagues may have been the means for social networking at one time, the absence of bowling leagues does not mean the absence of networking. Bowling is no longer the focus of the social network, the online community, which

is not only fostered, but often hosted by candidates, serves many of the same functions of the traditional Putnam model. The Internet hosts thousands of online communities and despite initial commercial beliefs, the Internet is much more frequently used as a means to interact and communicate than as a place to purchase goods and services (Horrigan 2001). Critical to Putnam's argument is that social networking stimulates social capital through building trust. Best and Krueger (2006) present clear evidence that online networking is related to common indicators of social capital, such as generalized trust, but their focus is not to look at how this trust may encourage civic engagement. Krueger (2002) does present empirical evidence that the Internet shows real potential to bring new individuals into the political process, but does not make the connection between social capital and participation. As mentioned above, others have (Bode 2011:We explore this possibility below.

Data and Measurement

The analysis here utilizes data from two sources: 1) The Pew Internet & American Life Project 2008 Civic Engagement Survey, and 3) A survey of college students from a variety of classes at the University of Louisville and Florida Atlantic University.[2] The Pew project randomly surveyed 2251 U.S. residents including both random digit dialed and cell phone respondents. All respondents were at least 18 years of age. The survey of college students with similar questions was conducted in February and March 2008. The sample of 666 respondents

[2] We removed the weight added to the Pew project to eliminate interpretation problems in the multivariate analysis. We also replaced any missing values in both datasets using the Expectation Maximization (EM) algorithm (Dempster, Laird, and Rubin 1977). This is a technique that finds maximum likelihood estimates in parametric models for incomplete data. The EM algorithm is an iterative procedure that finds the MLE of the parameter vector by first calculating the conditional expectation of the complete-data log likelihood given the observed data and the parameter estimates. Next, it finds the parameter estimates to maximize the complete-data log likelihood from the first step. The two steps are iterated until the iterations converge (for a complete description see Little and Rubin 1987; McLachlan and Krishnan 1997; Schafer 1997).

(70% from the University of Louisville and 30% from Florida Atlantic University) consists of students from a variety of political science and business courses, both lower and upper division. There are a total of 18 different courses with 6 sections of a lower division American federal government class containing students from a multitude of majors. Instructors for each course were given instructions on how to administer the survey. They were not allowed to answer questions that involved explaining the items. Respondents anonymously filled out a paper form that included the questions and response categories.

The student sample is obviously not a national sample but we contend that, in certain ways, these data can be used to strengthen our case by having built in controls. Being more educated, college students are both more likely to have knowledge about politics and use the Internet more often. Thus, if differences in knowledge are apparent among a group that is already expected to have more knowledge than the general public, the evidence is stronger. Also, because college students are the next generation of frequent voters, these data can give us some sense of what to expect when it comes to Internet use and political behavior in the future. There is significant overlap in the indicators in each dataset, so we compare results wherever possible.

The following analyses have several purposes. First, differences in means tests are used to explore the varying frequency of Internet social networking across behavioral indicators such as civic attentiveness and party identification. These tests are also used to look at the potential variation across demographics such as age, education, income, race, and gender. Second, Internet social networking is modeled as a function of these variables. Third, political participation is modeled as a function of Internet social networking, campaign contact,[3] civic attentiveness, age, education, income, and race. The idea here is to control for explanations of participation

[3] Only the Pew data had a measure of whether or not the respondent was contacted by a campaign.

alternative to Internet social networking to help assure that the predicted effects are not spurious.[4] Thus, other than a positive relationship between Internet social networking and participation, we also expect one with campaign contact, civic attentiveness, age, education and income, and we expect racial minorities to less likely to participate. Fourth, we constructed models of vote choice. These are purely exploratory. We had no real theoretical reason to expect heightened Internet social networking to be related to vote choice but we decided to explore this question because this is a relatively new area of inquiry. We control for party identification, race, and gender.[5]

The primary dependent variable, *political participation*, is measured using two different indices: one in the Pew data and one in the Student data. We use an additive index in the Pew data comprised of 15 items. Respondents were asked if they had done any of the following things in the last 12 months:

- Attended a political rally or speech?
- Attended an organized protest of any kind?
- Attended a political meeting on local, town or school affairs?
- Worked or volunteered for a political party or candidate?
- Made a speech about a community or political issue?
- Been an active member of any group that tries to influence public policy or government, not including a political party?
- Participated in a walk, run or ride for a cause?
- Worked with fellow citizens to solve a problem in your community?

[4] See Dalton (2002), Verba and Nie (1972), Verba, Schlozman, and Brady (1995) for theoretical justification of the included controls.
[5] See *The American Voter* (Campbell *et al*. 1960) for theoretical justification of the included controls.

- Contacted a national, state or local government official in person, by phone or by letter about an issue that is important to you?
- Sent an email to a national, state or local government official about an issue that is important to you?
- Signed a paper petition?
- Signed a petition online?
- Sent a 'letter to the editor' through the U.S. Postal Service to a newspaper or magazine?
- Emailed a 'letter to the editor' or your comments to a newspaper or magazine?
- Called into a live radio or TV show to express an opinion?

These items scale well together ($\alpha = 0.76$). The ordinal additive index ranges from 0-14. (used in Chapter 5)

In the Student data, participation was measured using the following 5 items:

- If the election for president were held today, who would you vote for? (They were given a list of candidates and a "don't plan to vote" option. We coded them as a 0 if they selected "don't plan to vote" and a 1 if they selected any candidate)
- People express their opinions about politics and current events in a number of ways. I'm going to read a list of some of these ways. Thinking ONLY ABOUT THE LAST 12 MONTHS, have you done any of the following? (no/yes, 0-1)

  A) Contributed money to a candidate running for public office

  B) Contacted any elected officials

  C) Joined an organization in support of a particular political issue

  D) Attended a campaign event

These items scale fairly well together ($\alpha = 0.55$). The ordinal additive index ranges from 0-5.

The primary independent variable, *Internet social networking*, is also modeled as a dependent variable. It was measured by constructing indices in both the Pew and Student data. The Pew data had observations for responses to the following 6 items (all items were centered between 0-1 and an index was constructed $\alpha = 0.60$):

- Do you ever use a social networking site like *MySpace*, *Facebook* or *LinkedIn.com*? (If respondent answered yes) Did you happen to do this yesterday, or not?
- Do you ever create or work on your own online journal or blog? (If respondent answered yes) Did you happen to do this yesterday, or not?
- Do you ever use Twitter or another 'micro-blogging' service to share updates about yourself or to see updates about others? (If respondent answered yes) Did you happen to do this yesterday, or not?
- Thinking about the political/community group in which you are most involved, in the past 12 months, have you communicated with others in this group by-- email?
- Thinking about the political/community group in which you are most involved, In the past 12 months, have you communicated with others in this group by-- using the group's website?
- Thinking about the political/community group in which you are most involved, In the past 12 months, have you communicated with others in this group by-- using a social networking site?

The Student Data had observations for the following 2 items. Both were inverted and recoded to scale between 0 and 1 before constructing an index ($\alpha = 0.58$):

- How often do you use social networking websites such as *MySpace.com* or *Facebook.com*? (more than once a day, everyday, three-to-five days per week, one-to-two days per week, less often, never)
- How important are social networking websites, such as *MySpace.com* or *Facebook.com*, to you for learning about campaigns and candidates? (very important, somewhat important, rarely important, not important)

The final dependent variable we used was vote choice. In the Pew data, it was measured using the following indicator: In the presidential election, did you vote for the Democratic ticket of Barack Obama and Joe Biden or the Republican ticket of John McCain and Sarah Palin (options were rotated)? In the Student data, we used the same vote choice indicator used in the political participation scale but rather we coded the Republican candidates (Mike Huckabee and John McCain) as a 0 and the Democratic candidates (Hillary Clinton and Barack Obama).[6] This made it consistent with the Pew data.

Several other variables are used as independent variables. We may expect that those who pay more attention to public affairs generally would be more likely to use the Internet to network via the Internet and to participate. Thus, we measured *civic attentiveness* using available indicators from both datasets: 1) How often do you discuss politics and public affairs with others in person, by phone, or by a letter -- every day, at least once a week, at least once a month, less than once a month, or never? (Pew Data), 2) Some people seem to follow what's going on in government and public affairs most of the time, whether there's an election or not. Others aren't that interested. Would you say you follow what's going on in government and public affairs most of the time, some of the time, only now and then, or hardly at all? (Student Data).

[6] Others choices were treated as missing values.

Several group characteristics including party identification were also gauged. While we have no real expectations regarding networking and party identification, we include it in the analyses for exploratory purposes. In the Pew data, party identification was measured with the following question: In politics today, do you consider yourself a Republican, Democrat, or Independent? In the student data, first, it was measured using this indicator: Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what? Dummy variables were created for each available response. Next, in the student data, there were follow ups to the party identification question that gauged strength. Partisans were asked: Would you call yourself a strong (Republican/Democrat) or a not very strong (Republican/ Democrat)? Independents were asked: Do you think of yourself as closer to the Republican Party or to the Democratic Party or neither?

Some demographics were also measured. Respondents were asked to report their race in both datasets. From both datasets, we were able to create dummy variables for white, black, Latino, Asian, and other race. For both datasets, gender was recorded and coded as 0 male and 1 female. Income was self-reported in the Pew data with the following question: Last year, that is in 2007, what was your total family income from all sources, before taxes. Just stop me when I get to the right category: less than $10,000, $10,000 to under $20,000, $20,000 to under $30,000, $30,000 to under $40,000, $40,000 to under $50,000, $50,000 to under $75,000, $75,000 to under $100,000, $100,000 or more. This creates an 8-point ordinal scale. Given that students, for the most part, have not started their careers, we decided to measure their assessment of their *parent's finances* instead of individual income. The 3-point ordinal indicator was as follows: Would you say you grew up in a home that was well off financially, somewhere in the middle, or poor? Well off, somewhere in the middle, or poor.

For *education* in the Pew data, respondents were asked to report the last grade or class they completed in school: none or grades 1-8, high school incomplete, high school graduate, technical, trade or vocational school AFTER high school, some college, no 4-year degree, college graduate, post-graduate training/professional school after college. This creates a 7-point ordinal scale. Respondent *age* was also self-reported in both datasets and collapsed into a 6-point ordinal scale based on the following age groups: 18-29, 30-39, 40-49, 50-59, and 60 and up.

Finally, we control for *campaign contact* in the Pew participation model. Respondents were asked the following questions:

- How often have you-- Received an email asking you --to get involved in a political activity? (daily, every few days, once a week, once a month, never)
- How often have you-- Received a letter asking you --to get involved in a political activity? (daily, every few days, once a week, once a month, never)

An index was constructed from these two items. There were no campaign contact measures available in the Student data.

Results

The results in Table 1 are t-tests for a difference of means across the dichotomous independent variables and one-way ANOVA tests for ordinal and non-dichotomous nominal independent variables. All results in this chapter are based on respondents that gave an affirmative answer when asked if they use the Internet at least occasionally. First, one-way ANOVA tests indicate that those who are more attentive to public affairs are more likely to social network than the less attentive in both the Pew and Student Data. In measuring networking online, we were careful to include in our indicator index the use of prominent websites or protocols like *Facebook* and *Twitter* which may be used for politics, but are primarily social

outlets. These outlets are part of the increasingly important movement to Web 2.0 which allows users to define or even create their own web experience. Previously we have found that those who are more attentive are more likely to politically participate. If social networking also leads to engagement, the effect on participation may be magnified by the combination of the two. The pervasiveness of social networking is not high in the Pew Data but nonetheless the highest value of social networking is among those who pay the highest attention to public affairs. In contrast, social networking is common in the Student Data. The mean score for Internet social networking among those who pay attention to public affairs most of the time is 2.28. This is near the midpoint of the index demonstrating that these attentive students are, for the most part, all doing some kind of networking on the Internet. For that matter, even the least attentive are likely to be doing some networking via the Internet.

--Insert Table 1 about here--

There is some divergence in the findings across the datasets when it comes to party identification. In the Pew Data, there are no significant differences across party identification. In the Student Data, Democrats score highest (1.98) followed by Republicans (1.87) and then Independents (1.65). Again the numbers are substantially higher among the young people represented in the Student Data. This could have implications for participation as older cohorts are replaced. If younger Democrats are more likely to social network via the Internet and those who network are more likely to participate, we could see a participation gap across party identification as older cohorts are replaced by younger ones. Interestingly, the Student Data suggests that there are no significant differences across age cohorts regarding who is more likely to network. However, in the Pew Data, the younger cohorts participate at higher and more significant rates in social networking. These results only include those respondents that

responded affirmatively when asked if they use the Internet at least occasionally. Young people are far more likely to respond affirmatively ($p < 0.00$). Yet, even among those who use the Internet, younger people in the Pew Data are the more likely to use social networks. The growth in the use of networking websites like *Facebook* is driving this finding. The lack of significance in the Student Data may well be the influence of education which is also correlated with networking as we will see below

The differences in means are significant across education and income in the Pew Data. The more educated and those with higher incomes are more likely to social network on the Internet than their respective counterparts. The income differences are not of a significant magnitude until the upper income categories (75,000 or more). The differences on education are quite stark. The means rise considerably for those with some college and with greater levels of education. These variables were not measured in the Student Data because they are fairly constant. We did attempt to measure income by asking about parents' finances and the differences were not significant. The differences across race are not significant in either dataset but again blacks and Latinos are significantly less likely to use the Internet generally ($p < 0.01$). Internet use for gaining social capital has a more pronounced effect for certain groups.

Many of these effects hold up in a multivariate setting, but simultaneously controlling for each leads to changes. The results are presented in Table 2. In the Pew Data, civic attentiveness, education and age are still significant but income becomes insignificant (and most of the other insignificant predictors remain so). This suggests that the income effects were spurious. The variation in Internet social networking explained by income can be explained away by the variation in civic attentiveness and education. The significant effects indicate that social networking on the Internet increases with civic attentiveness and education *ceteris paribus*.

There are also some changes in the Student Data results. Party identification also becomes insignificant suggesting that the results are spurious. Civic attentiveness and age remain significant positively and negatively, respectively. Interestingly, parent's finances and gender become significant in the multivariate setting. The results suggest that Internet social networking is higher among those whose parent's earn more and among females. Again, this has interesting implications considering that the sample is comprised of primarily young people. We may expect the proposed effect on participation to have a varied effect on different groups across time.

--Insert Table 2 about here--

While it is important and interesting to explore variation in Internet social networking, more central to our theory in this chapter is examining the relationship between networking and political participation. The results contained in Table 3 indicate that heightened Internet social networking does indeed significantly predict participation in both datasets. This is a more significant finding than simply predicting the likelihood of voting. We measure political participation broadly including participating in rallies and protests, giving speeches, petitioning government, and volunteering in campaigns. Despite this, the Internet was a significant predictor of political participation. Importantly, these findings hold up even when controlling for several theoretical predictors of political participation. The Pew and Student model predicts a significant positive relationship with as stated above, Internet social networking, and also campaign contact, civic attentiveness, age, and education, *ceteris paribus*. Surprisingly, the findings on income are mixed. Income is a significant predictor of political participation in the Pew Data, but parent's finances is not significant predictor in the Student Data. Race has only limited effects in both datasets. Most important to our theory is that the effect of Internet social networking appears to

be independent of both general engagement, external campaign influence in the Pew model with the demographic controls.

--Insert Table 3 about here--

While we have no real theoretical reason to expect that heightened political Internet use would be related to actual vote choice, given that so little is known about how the Internet is affecting people's political perspectives, it is a question worth exploring. Thus, we modeled whether or not one voted for more Democratic candidates versus Republican candidates as a function of Internet social networking, party identification, race, and gender. Interestingly, Internet social networking is significant in the Pew model and in the Student model. Both models suggest that the more people use the Internet for social networking the more likely they are to vote for Democrats. This suggests that the Democrats have an early advantage in using the Internet to mobilize support among young networkers and networkers in general. The Pew Model is likely influenced by the efforts of the Obama campaign to mobilize online resources with a greater intensity and effect than the competing McCain campaign. The Obama campaign used multiple methods of online social networking with unprecedented success. There were multiple *Facebook* groups supporting the Obama campaign, which is not particularly noteworthy until the magnitude of the groups is seen. In just one of the many student groups the Obama campaign had 3.2 million networkers signed up (Vargas 2008). The Obama campaign had a vast network of online donors regularly recruited from social networking protocols such as *Twitter* and websites including *Facebook* and many others which allowed them to assemble millions of email address from which to solicit money and support (Vargas 2008).

Nonetheless, it is problematic for us to generalize with these data. In 2008, there was a clear advantage to the Democrats in the use of online campaigning and the appeal to social

networkers, but it is far too early to predict a long term partisan benefit. Yet, there is a developing pattern among young educated people that initially favors the Democrats. Those with education are more likely to vote, so as older generations are replaced, these data would suggest that those replacing them could give gains to the Democrats. Party identification and race are significant in both models but gender is not. As expected, Democrats and African Americans are more likely to vote for Democrats. As a result of the significance of these variables, we can be confident that the effects of Internet social networking in the Student model are not spurious. As more elections are conducted in the Internet age, a larger pattern will emerge to see whether the advantage wielded by the Democrats in the 2008 election is sustained.

--Insert Table 4 about here--

Conclusion

The findings presented in this chapter suggest several things. First, there is some variation across political variables and standard demographics when it comes to who is more likely to social network via the Internet. In addition, there is some evidence that heightened Internet social networking is related to vote choice at least among young people represented in the Student Data and in the 2008 election. While this is interesting, the most important finding in this study is that Internet social networking is positively associated with political participation. This finding provides hard empirical evidence in support of conjecture in previous work suggesting that the Internet actually represents a new means of building social capital which in turn can stimulate political participation.

While these findings are revealing, more needs to be done to make this relationship clearer. It would also be interesting to see if more or less social capital is built across the different ways that people use the Internet. Do networking sites have a greater effect than the

exchange of information through email, are videos more influential than written communication, and are blogs more influential than traditional news? These are all questions that can still be explored. For now, it can be clearly stated that there is a relationship between political Internet use generally and the propensity to vote and participate.

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Table 1: Differences in Social Networking on the Internet

	2008 Pew Data			Student Data		
	Mean	*S.D.*	*P-value*	*Mean*	*S.D.*	*P-value*
Civic Attentiveness						
Never	0.56	0.94		--	--	
Hardly at all	0.47	0.81		1.18	0.80	
Only now and then	0.97	1.16		1.60	1.00	
Some of the time	0.88	1.10		1.78	1.17	
Most of the time	1.19	1.25	0.00	2.28	1.25	0.00
Party Identification						
Republican	0.83	1.08		1.87	1.08	
Democrat	0.97	1.18		1.98	1.26	
Independent	0.86	1.11	0.09	1.65	1.08	0.04
Age						
18-29	1.16	1.30		1.84	1.18	
30-39	0.82	1.05		1.49	1.29	
40-49	0.68	0.95		0.92	0.37	
50-59	0.57	0.85		0.20	0.00	
60 and up	--	--	0.00	0.20	0.00	0.14
Education						
H.S. Incomplete	0.49	0.79		--	--	
H.S. Graduate	0.54	0.95		--	--	
Some College/Associates	0.78	1.14		--	--	
College Graduate	1.15	1.15	0.00	--	--	
Income						
Less than $10,000	0.82	1.21		--	--	
$10,000-$20,000	0.96	1.13		--	--	
$20,000-$30,000	0.59	0.97		--	--	
$30,000-$40,000	0.78	1.23		--	--	
$40,000-$50,000	0.75	1.02		--	--	
$50,000-$75,000	0.98	1.30		--	--	
$75,000-$100,000	0.89	1.07		--	--	
$100,000 or more	0.91	1.03	0.00	--	--	--
Parent's Finances						
Poor	--	--		1.72	1.38	
Middle	--	--		1.82	1.19	
Well Off	--	--	--	1.87	1.11	0.67
Race						
White	0.85	1.10		1.83	1.18	
Black	0.85	1.10		1.90	1.18	
Latino	1.20	1.23		1.54	1.10	
Asian	1.04	1.32		1.77	1.22	
Other	0.93	1.41	0.31	1.95	1.29	0.50
Gender						
Male	0.87	1.12		1.75	1.23	

Female	0.89	1.12	0.70	1.89	1.13	0.13
Number of Cases		1626			666	

Note: Data come from the Pew Internet & American Life Project, August 2008 Civic Engagement Data and a 2008 survey of college students at the University of Louisville and Florida Atlantic University. P-values represent the probability that we cannot reject the null hypothesis that there is no difference in the magnitude of political internet use across all above independent variables (T-tests for dichotomous independent variables and One-way ANOVA tests- between groups- for ordinal and non-dichotomous nominal independent variables).

Table 2: Models of Social Networking on the Internet

		Pew Data	
	Estimate	*S.E.*	*P-Value*
Civic Attentiveness	0.33	0.04	0.00
Republican	-0.16	0.11	0.13
Age	-0.04	0.00	0.00
Education	0.66	0.06	0.00
Income	0.01	0.03	0.59
Black	-0.20	0.18	0.26
Hispanic	0.79	0.21	0.00
Female	0.17	0.10	0.08
-2 log likelihood	4949.63		
Nagelkerke Pseudo R^2	0.21		
Number of Cases	1626		
		Student Data	
Civic Attentiveness	0.58	0.07	0.00
Republican	0.05	0.16	0.77
Age	-0.67	0.21	0.00
Parent's Finances	0.23	0.12	0.05
Black	0.25	0.22	0.25
Latino	-0.09	0.28	0.74
Female	0.40	0.14	0.00
-2 log likelihood	2621.13		
Nagelkerke Pseudo R^2	0.12		
Number of Cases	666		

Note: Data come from the Pew Internet & American Life Project, August 2008 Civic Engagement Survey and a 2008 survey of college students at the University of Louisville and Florida Atlantic University. Table entries are ordered logit estimates, associated standard errors, and 95% confidence intervals. Operationalization descriptions are all in Chapter 2.

Table 3: Models of Political Participation

		2008 Pew Data	
	Estimate	*S.E.*	*P-value*
Internet Networking	0.75	0.05	0.00
Campaign Contact	0.37	0.04	0.00
Civic Attentiveness	0.22	0.02	0.00
Age	0.02	0.00	0.00
Education	0.14	0.06	0.01
Income	0.08	0.02	0.00
Black	-0.04	0.17	0.82
Latino	0.39	0.21	0.06
-2 log likelihood	6233.21		
Nagelkerke Pseudo R^2	0.40		
Number of Cases	1626		
		Student Data	
Internet Networking	0.73	0.15	0.00
Civic Attentiveness	1.06	0.10	0.00
Age	0.64	0.22	0.00
Parent's Finances	0.07	0.25	0.77
Black	-0.49	0.35	0.16
Latino	-0.08	0.14	0.54
-2 log likelihood	971.13		
Nagelkerke Pseudo R^2	0.27		
Number of Cases	666		

Note: Note: Data come from the Pew Internet & American Life Project, November 2008 Civic Engagement Survey and a 2008 survey of college students at the University of Louisville and Florida Atlantic University. Table entries are ordered logit estimates with associated standard errors. $^{**}p \leq 0.05$, $^{*}p \leq 0.10$.

Table 4: Modeling Democratic Vote Choice

		Pew Data	
	Estimate	*S.E.*	*P-value*
Internet Networking	0.36	0.06	0.00
Democrat	3.15	0.19	0.00
Independent	1.90	0.19	0.00
Black	1.33	0.25	0.00
Female	0.15	0.13	0.25
-2 log likelihood	1515.46		
Nagelkerke Pseudo R^2	0.41		
Number of Cases	1683		
		Student Data	
Internet Networking	0.27	0.10	0.01
Party Identification (7-point)	0.78	0.06	0.00
Black	0.70	0.40	0.08
Female	0.08	0.21	0.70
-2 log likelihood	571.423		
Nagelkerke Pseudo R^2	0.52		
Number of Cases	666		

Note: Data come from the Pew Internet & American Life Project, August 2008 Civic Engagement Survey and a 2008 survey of college students at the University of Louisville and Florida Atlantic University. Table entries are logit estimates, associated standard errors, and 95% confidence intervals. Operationalization descriptions are all in Chapter 2.