Illinois Wesleyan University
Digital Commons @ IWU

Honors Projects | Political Science Department

2009

# Trust on the Internet: A Virtual Reality?

Adam Clark, '09
*Illinois Wesleyan University*

Recommended Citation
Clark, '09, Adam, "Trust on the Internet: A Virtual Reality?" (2009). *Honors Projects.* Paper 36.
http://digitalcommons.iwu.edu/polisci_honproj/36

This Article is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.
©Copyright is owned by the author of this document.

# Trust on the Internet: A Virtual Reality?

Adam Clark

April 23, 2009

**Abstract**

Social capital has recently gained popularity, but it is not a new topic. The relationship between civic engagement and trust has been well tested, and it has been used in the past to help diagnose the well being of a society. Unfortunately with evolving technology, some of this research may be now obsolete. The Internet has changed the way that people communicate and learn. Since the Internet has reached such high proliferation rates, especially among the younger generations, it is likely to have an effect on the relationship between civic engagement and trust. Using NES survey data from 1996 to 2004 primarily, I tested the effects of the Internet on said relationship, and Internet access had an effect on social trust.

## Introduction

The relationship between civic engagement and social trust has been investigated for many years, but these studies have picked up more momentum in the 1990s and into the new millennium. Many have theorized that this relationship is important in diagnosing the state of American civic culture. The use of civic engagement as a gauge of American civic culture needs to be updated to take into consideration the increase in Internet use.

I will be operating under the postulate that civic engagement and social trust have a positive impact on democratic health (Verba 1995; Putnam 2000; Skocpol 1999). This connection is what makes the study of engagement and trust politically relevant. There are some opposing viewpoints, though (Newton 2001; Arneil 2006). I will take these criticisms into account, but for the most part, I will assume a positive correlation between strong civic communities and a healthy democracy.

Technology is changing society in many ways. Robert Putnam argues that television and the privatization of life it fosters is the culprit for the recent decline in social capital (Putnam 2000). Adequate examination has not been undertaken to study the true scope of the Internet. This may be because of the newness of the technology or because the Internet is more complex and rapidly evolving in comparison to television. Unlike television which does not ask for feedback, the Internet is an active form of participation that can be shaped to one's immediate wants and needs. Also, the Internet can be used as a communication medium. The Internet brings people together on a common ground, albeit virtually.

The question for this paper, then, is how the relationship between civic engagement and social trust changed recently with the younger cohorts and how the Internet affects this correlation. I hypothesize that the 18-30 year old cohort has, at least to a certain extent, replaced traditional face to face civic engagement with Internet involvement, and therefore people with Internet access will have higher levels of social trust than those without.

A survey of the needed scale and quality is not reasonable in the allotted time period. Therefore, survey data from other organizations will be used. The American National Election Studies data and the General Social Survey are two of the main data sets that will be used and analyzed.

The first step to validating this research question is examining the relationship between civic engagement and social trust. This can be done by analyzing responses to survey questions. Volunteering is a good representation of civic engagement because it fosters communication, cooperation and helps teach citizenship and leadership skills to members (Skocpol 1999). Also, a measure of campaign participation will be used.

The social trust question commonly posed asks whether people generally can be trusted or if one can't be too careful with others. This kind of trust represents the trust that members in a society have towards their fellow citizens. To find the evolution in the relationship, age will also be studied. If the data for the 18-30 year olds over a period of 1996-2004 is ample, it will allow me to get a proper sense of any change in the respective variables in the target age set. Unfortunately, young people have very low response rates on surveys.

The survey information on Internet use is less specific to this subject. One way of studying the linking powers of the Internet is to look at how people use it, but the data on this are minimal. Instead, it may be more telling to look at the total use of Internet or the availability of the Internet in households. This is not the most exhaustive way to measure the Internet variable, but it is the best way with the data set available. To help supplement the Internet access variable, other information on Internet use will be provided. After examining the existing data, with the help of a political science class, I was able to ask some tailored questions on a public opinion survey. The results will be used to supplement the other survey data.

**Literature Review**

Participation is vital to any democracy, and political participation and civic engagement are both very important (Macedo 2005). Robert Putnam analyzes the decline in the act of voting in America. He ties this in with a decrease of social capital, which refers to "features of social organization that can improve the efficiency of society by facilitating coordinated actions" (Putnam 1993, 167). It has been oft supported that there is a positive relationship between social capital, trust and political participation.

The relationship between social trust and civic voluntarism is well documented. When people volunteer, they donate their time and energy to serve to better their community. Trust allows people to come together to accomplish joint goals. Looking at the definitions this way, it is intuitive to believe that a relationship exists. This relationship is often thought to be reciprocal (Verba et al. 1995; Green and Brock 1998; Putnam 2000). There has been backlash to this idea (Newton 2001, Arneil 2006), but the majority of the literature supports the social capital theory. The importance of

participation in American democracy is not diminishing, but according to some research, the rates of participation and trust are. As Americans find more to do outside of the public sphere, they are increasingly turning to Internet use.

The Internet has grown quickly in the last two decades. Up until the mid 1990s, the Internet was outside the reach and understanding of average people. According to NES studies, 27 percent of respondents had Internet access in 1996. That number ballooned to 63 percent of respondents in the 2000 survey (1996 and 2000 NES studies). Another report states that the number of Americans with Internet access in their homes more than quadrupled in the time span of 1995 to 1998 (Kraut et al. 2002). This has led to a congruent theoretical increase in people's comfort using the Internet (Kraut et al. 2002). Shah and his colleagues found that there was a positive relationship between Internet use and engagement (Shah et al. 2002, 978).

This increase in use is also fundamentally changing the way politics in America work. Examples of this include Howard Dean using Internet feedback from such sources as MoveOn.org and MeetUp.com (Crumlish 2004). Internet news brings more exposure to political candidates, social networks and blogs allow people to share their ideas and meet, and websites like MeetUp.com allow people to get connected with others for face to face interaction. Use of Internet news was a strong predictor of increased political participation (Tolbert and McNeal 2003). There are several obstacles in trying to study Internet use and effects in the United States. As DiMaggio puts it, the Internet is a "moving target" (DiMaggio 2001, 308). Research on the topic becomes outdated quickly. The many uses and vastness of the Internet also make the Internet hard to study. It is

important to understand that there are different uses for the Internet, and the hours of use may not be as good of a measure as the patterns of use (Shah et al. 2001).

Electronic media has had a negative history with social capital. In *Bowling Alone,* television watching acts as anti-social capital (Putnam 2000). Some more recent scholarship has questioned Putnam's claim. In an individual-level analysis of social capital, Shah states that television is not "the monolithic danger that some research on social capital might lead us to believe" (Shah 1998). He finds that the effects of television are dependent on type of programming and audience members' uses of it. Unlike television, the Internet can be a more active form of entertainment than is television. From email to more complex social networks, the Internet has fostered at least communication if not deeper connection. A more optimistic view of electronic media is given in a study of electronic community networks (Sullivan 2002). Sullivan concludes that public engagement is significantly linked to different patterns of technology and support for community electronic network projects.

The Internet has also been used to increase knowledge and trust between people. Crumlish (2004) writes, "Social network tools, from email on up, can supplement a traditional support group or can be used to create the virtual equivalent, with minimal or no physical face-to-face contact" (128). Users can find help on the Internet to deal with addiction, disease or personal loss, although there are risks involved. The anonymity the Internet provides can be seen as an upside to people who may be shy talking to people they know, but it also can be seen a downside to those who are afraid of being taken advantage of by seemingly compassionate strangers (Crumlish 2004).

If the young generation of today is in fact participating less than the older cohorts, this gap may be made smaller by the Internet. As Norris and others argue, the older generation is far behind on Internet access. Citing a 1999 study, Norris claims that the "youngest group is ten times more likely to be online than the oldest group" (Norris 2001, 84). This 1999 study may soon be dated, but other, more recent data sources also support this claim (NES data, PEW study 2005).

According to Delli Carpini, American youth are disconnecting from public life, which makes them less trusting, less interested in public affairs and less likely to participate in community organizations (2000). He is not alone on this indictment (Putnam 2000, Best and Krueger 2005, Verba et al. 1995, Mindich 2005). Some of these claims may be a little harsh, however. According to an analysis of American National Election Studies (NES) data, which uses a four point scale to measure participation, in the last 40 years the percentage of 18-30 year olds who display no participation has decreased from 61 percent to 44 percent. All of the other levels of participation have actually increased. Also from survey results, it is clear that younger people use the Internet more often and with more skill. So if indeed the older generations do have an advantage, the younger generations may soon find new forms of engagement using the Internet setting. In fact, Cliff Zukin and his colleagues write "We believe that the volume of citizen engagement has not declined so much as it has spread to a wider variety of channels" (Zukin et al. 2006, 3).

However, the Internet has shown some signs of fostering a sort of community, albeit sometimes tenuous, but it is not replacing personal relationships. The Internet gives people a chance to communicate with and even meet people, but technology and the

Internet are not likely to completely change who interacts and for what reasons. For instance, a recluse will most likely not become a highly involved citizen when a computer enters the equation, although it does create a platform for anonymous communication. Becoming active online requires skills that are different than those needed for offline activity (Best and Krueger 2005, Krueger 2006). Krueger argues that younger adults tend to posses higher level of online skill, which is the most powerful predictor of online mobilization (Krueger 2006, 771). Krueger goes on to state that the boost the young people receive from Internet skill cancels out with the historic low levels of participation.

With this new technology comes new ways of learning and communication. Cass Sunstein argues that there is a danger with people narrowing the filter through which they receive news and information (2002). Mindich writes that the Internet "allows readers to self-select" (2005, 33). This is potentially dangerous for a society that is looking to focus on coordinated actions. Kraut and his colleagues were on the right track when they explored the *Internet Paradox* in 1998 and revisited the subject in 2002 (Kraut et al. 1998, 2002). Trying to understand the Internet is difficult because it is a moving target. The many uses and vastness of the Internet also make the Internet hard to study. A businessman using email will have a much different experience than a gamer that spends many hours a day online. Thus, they are likely to be affected in different ways by the technology. The Internet is also used by many people all across the globe.

From survey results, it is clear that younger people use the Internet more often and with more skill. According to Weber, moderate and high levels of Internet participation are headed by males and young people (Weber et al. 2003). They also

showed that Internet activity had a significant, positive effect on political participation (Weber et al. 2003).

There are two types of virtual communities as defined by Blanchard and Horan (2000). The first is physically-based, which includes a shared location and a priori meeting. The second is geographically dispersed, which are built on shared interests and carry the potential to meet face-to-face after meeting online. Just like with face-to-face interactions, there is a limit on how many relationships people can maintain at one time. This is because every relationship requires a certain amount of time and emotional commitment. So, although the Internet allows us to meet more people, it does not fundamentally alter our ability to maintain relationships. Therefore, the role that the Internet will play on civic life needs to be better studied.

In an analysis of Blog for America, Kerbel and Bloom wrote that seeing the use of Internet to mobilize locally was like standing "at the juncture of twenty-first-century technology and nineteenth-century local politics" (2005, 13). If he is correct in his observations, the Internet can be used as a tool for people to meet and later assemble in real communities for a common purpose. Along with communication and information gathering, the Internet can serve as a mobilization tool.

Unlike many other scholars, Eric Uslaner takes a more neutral view of the Internet. "Most people don't go online looking to build a sense of community – or to destroy it (Uslaner 2004). For the purposes of this study, I would like to stay closest to this viewpoint. Past evidence has shown that technology has affected society both negatively and positively, but the world is still fundamentally the same. The Internet increases communication (Kaase 2000), mobilizes users on common issues, (Kerbel and

Bloom 2005) and increases information gathering capabilities (Huang and Price 2001). For these reasons, I believe it helps foster a more trusting environment.

**Method**[1]

To test the hypothesis, I will need to examine Internet access and usage, participation rates, levels of interpersonal trust and several demographic measures. Like in my previous research, I will have statistics about Internet access, use and growth. This information will come from the NES, GSS, the United States Citizenship, Involvement and Democracy Survey, and other studies, including some from the PEW center for the People and the Press.

This study will look primarily at the age group of 18-30 year olds because it is predicted that the biggest cultural changes in technology will be with the youngest generation.

*Participation*

Many scholars have pointed to a decline in civic engagement through the later part of the 20th century, and many also point to a larger decline in young people's participation. I will use NES data and a comparison of means test to see if the participation gap really has been widening between the young and the old. My initial tests show that there is little difference between the age cohorts, and there is even less evidence of a sustained decline in participation. One possible explanation for this may be survey response error. Many respondents may be systematically overstating the amount which they participate. However, this is probably not the case because there is no reason to expect that this inflation of participation responses would increase over time.

[1] For an explanation of survey questions, please see appendix 2.

There are multiple ways to measure participation. For lack of consistent data, I will be using two different measures. A disclaimer needs to be made that campaign participation and volunteering are not equal. They will not be used together in the same models, and I will try not to use them interchangeably. The volunteer variable is a question that asks if one has volunteered in the last 12 months. The measure for campaign participation is a four point scale with zero being not involved and four being the most involved. Unfortunately, the vast majority of respondents are in the zero and one group. For this reason and also to enhance the variable, I will also look at other forms of participation.

*Internet*

The Internet variable will be critical because one of the biggest qualms I have with past research is the simplicity and out datedness of the Internet measure. The measurement of Internet poses a measurement issue because many large surveys do not ask extensively about Internet use. In a study on the effects of the Internet on political participation, Tolbert and McNeal use Internet access and access to political information online (2003). Although the simplicity of Internet access seems appealing, I fear that access alone will not be an adequate measure, especially for the 18-30 year old cohort. The Internet has reached such high levels of proliferation that in 2009 not having Internet access is almost an anomaly. The Internet can be accessed in homes less expensively now, and it can also be used for free at many libraries and schools. The variable cannot be simply the number of hours on the Internet per week, because it would be counter-intuitive to think that someone who spends all their time on the Internet would also be very trusting of others when they would have minimal face to face contact.

By stating this, I am conceding that an Internet connection cannot completely replace face-to-face interaction. I agree more with the connecting and information abilities of the Internet (Sullivan et al. 2002) than a completely digitalized community. I will be using Internet access questions, questions of recency of use, and questions of context of use. While these few variables may be the ones used to correlate with the other variables, other information on the Internet and its uses will be provided from numerous studies.

*Social trust*

The variable of social trust is more straightforward. The question that asks whether one can generally trust others or if one cannot be too careful with others has been asked in many surveys. I will use the NES data for this question from 1992-2004. On the USCID survey, this same question is asked with a 10 point scale for responses instead of a binary choice. Another interesting concept of trust is whom the respondent trusts. The USCID survey asks if the respondent trusts certain groups, such as neighbors, club members and strangers. While preliminary research has not shown the Internet to increase trust in the neighbor and club member categories, an increase in trust in strangers is evident. This may have happened because trust in strangers is very low and therefore is more able to increase, but I believe it is because the Internet lets us interact with people who are not in our "physically-based" communities.

The Internet may have effects on the other two variables that will be hard to measure. For instance, because of the increased communications technology that the Internet provides, it may actually remake the way people participate. It seems a little antiquated to assume that people will always want to join Kiwanis when they can make a

difference by signing petitions, donating money and signing up for service projects from their computer.

The Internet is also a much more active form of electronic media than is television. Thomas Friedman writes, "The act of participating is like a muscle you have to use" (126). If we see the Internet as an active form of media, it may actually increase participation and trust. But caution must be used in this theory. Many uses of the Internet, just like many activities offline, will not increase participation or trust in others. The Internet does not create new beings; it simply enhances our abilities to communicate and find information.

**Explanation of Variables**

*Social Trust*

As the dependant variable in this study, social trust will be "a belief in the honesty, integrity and reliability of others" (Taylor et al. 2007, 1). Social trust is a good indicator of how healthy the society is, and it has shown to have a positive relationship with age. This means that as people age, they also become more trusting. The question used by the NES that asked about social trust was asked in the 1960s and 1970s but was left off the ballot for 16 years. When the question again appeared, the results were significantly different for the 18 to 30 age group (see figure 1). There had been a steep increase in distrust by the time the question returned to the questionnaire in 1992. For the last 12 years, this age group has been the least trusting group in every survey. In 2004, 70 percent of 18 to 30 year olds said that you can't be too careful in dealing with people.

The decline in social trust is widely thought to be the consequence of both generational and life cycle effects (Taylor et al. 2007, Putnam 2000, and Robinson 2001).

Here, life cycle effects mean that for all generations, trust increases as people age. Generational effects show that there are differences between each generation, and in this case, social trust is decreasing in the younger generations.

Levels of trust remained somewhat steady in the panel study from 2000 to 2004.Using the panel study data, I found that 79 percent of those who said people were trustworthy in 2000 also said people were trustworthy in 2004.

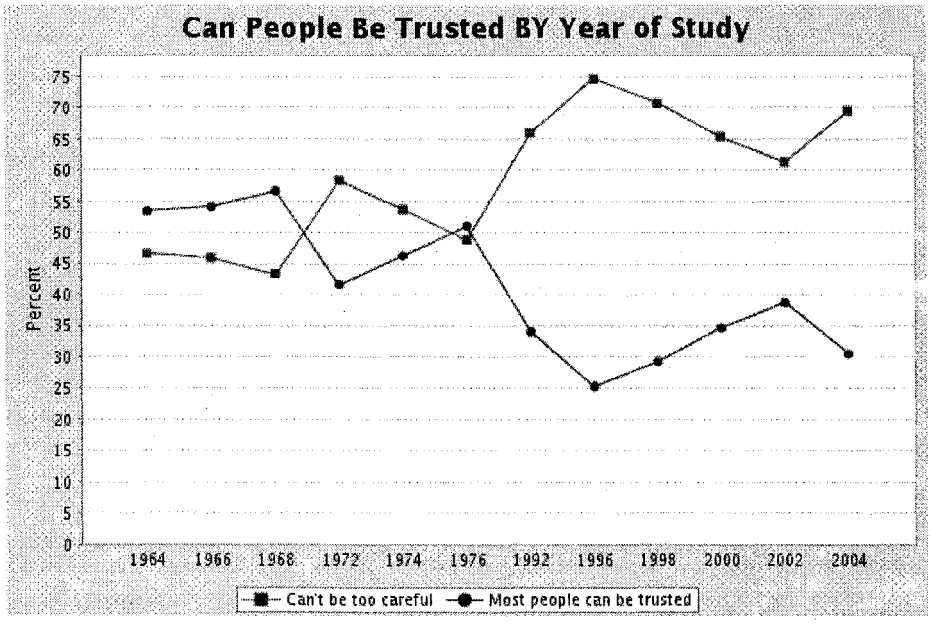


**Figure 1. Social Trust by Year of Study (18-30 year olds).**

*Civic Engagement*

The classic indicator of social trust in the social capital theory is civic engagement, which can take many forms. I will be using questions about volunteering, campaign participation and other community-minded actions. As this paper primarily is studying the effects of Internet, I will not go too deep into the debate about civic engagement. Briefly, there is a decline in formal memberships in the country but an

increase in voluntarism, especially in youth (Putnam 2000). For this reason, I think voluntarism will be a more accurate variable. Also, because many of the 18-30 year olds may be in high school or college, group membership would not be as accurate of a measure as it is for adults (Claibourn and Martin 2000). For students, joining a group or attending meetings may not necessitate the same amount of effort as adults because a school or campus compacts all activities into a much smaller space. To enhance the analysis, I will also use measures of political participation. There has shown to be a positive relationship between community and political participation (Verba et al., 1995; La Due Lake and Huckfeldt 1998).

*Internet Use*

Over the eight year period of 1996 to 2004, there were big changes in Internet use and access, according to ANES data. The Internet question first appeared on the American Nation Elections Studies survey in 1996. Therefore, I will be analyzing the years from 1996-2004 (see figure 2). In 1996, only 27 percent of respondents reported having access to the Internet. Over the next four years, this rose to 43 percent in 1998 and 63 percent in 2000. In the most recent survey, in 2004, 72 percent of respondents had access to the Internet (1948-2004 Cumulative NES study).[2] For the 18-30 year old age group, these percentages were higher every year (see figure 2).

[2] The Internet access question was absent from the 2002 study, and no time series survey was run in 2006.

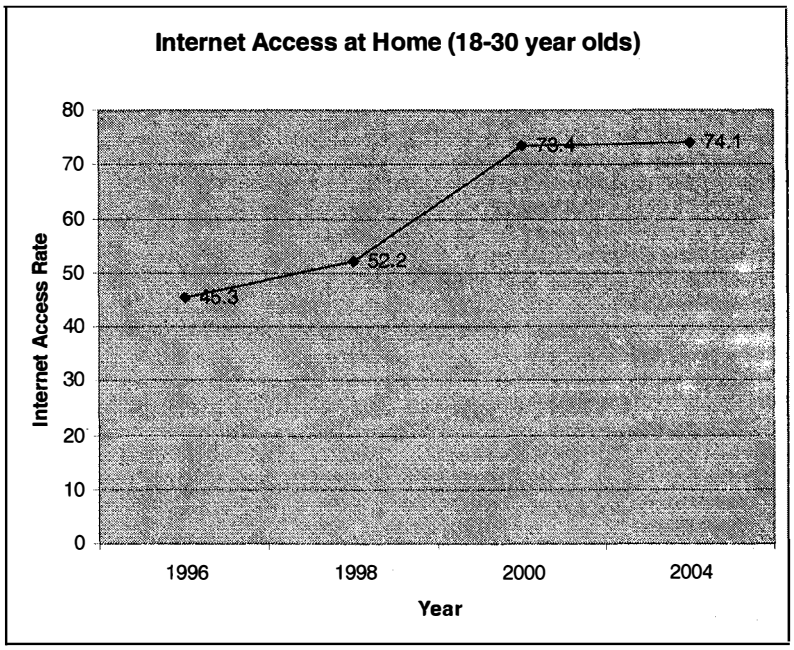


**Figure 2. Internet Access over time for 18-30 year olds. (Source 1948-2004 Cumulative NES study).**

In 1996, only 26 percent of respondents reported having Internet access in their homes (NES 1996). Of these Internet users, only 23 percent said they used the Internet to see campaign information. In 2004, 72 percent of respondents reported having Internet access in their homes, and 64 percent saw campaign information online (NES 2004). Not only are people using the Internet more, but they seem to be using it for different activities. According to a 2009 Nielson study, over 67 percent of Internet users now visit social networking sites, and nearly 10 percent of all Internet time is spent on those sites (Nielson Online 2009). The Internet is a tool for communication as well as seeking information. These are two important aspects of building trust (Putnam 2000, Verba 1995).

Although somewhat speculative, a study by the PEW Research Center polled 578 Internet experts about the likely future of the Internet. While most Internet connections

now happen from computers, 77 percent of these experts agreed that the mobile device will be the primary connection tool in the year 2020 (PEW 2008). This is just an example of the evolution and mobilization that is still likely to increase in the near future.

One of the biggest increases in Internet access in the U.S. since 1992 has been in public schools. In 1992, only three percent of public schools had Internet access. By 2005, 94 percent of schools had Internet access (Wells and Lewis 2006). One reason I picked the 18-30 year old age group is I felt that they had more experience and therefore more comfort using the Internet. Being exposed to the Internet starting at a young age will lead to more skillful use later in life. This can be seen in the "digital divide" between young and old people (See figure 3). As illustrated, 18-30 year olds all had access rates of about 80 percent, and respondents over 65 had access rates lower than 30 percent.

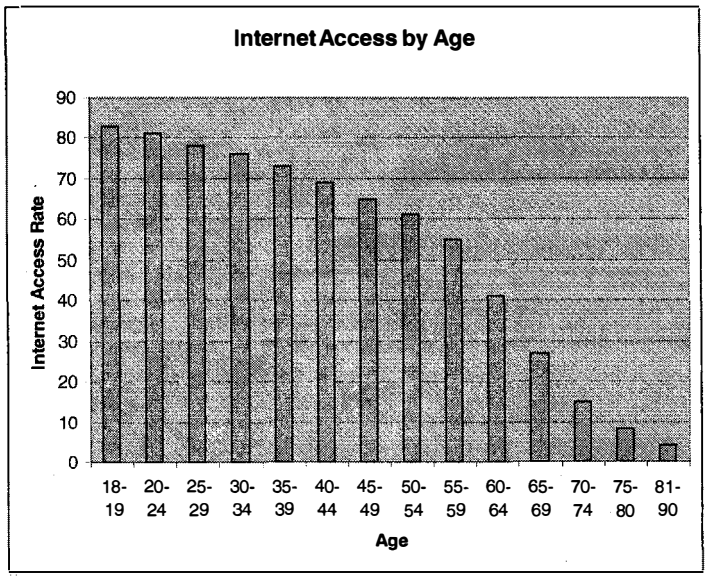


**Figure 3. Internet Access by Age. (Source 2005 Pew Internet Study).**

Not only are young people more likely to be Internet users, but they are also more likely to be good at using the Internet. The GSS asked a question about web ability, and 40 percent of 18-30 year olds said they were excellent at using the web. This is the highest rate of excellence for any age group and much higher than the average of 28 percent. Although self ratings are often unreliable, the interest here comes from the cross-group differences. Also, users of the Internet have shown higher rates of trust than non-users. In 2000, 57 percent of respondents with Internet access were trusting, while only 43 percent without the Internet were trusting. This statistic may seem to reflect the effects of age cohort, but the difference is greater in the 18-30 year old age group, albeit at a lower level. In this age group, 37 percent of respondents with Internet access were trusting, while only 20 percent without the Internet were trusting. Internet access also showed to make trust steadier across time. Of users who had Internet access in 2000, 83 percent reported being trusting in 2000 and 2004. Of users who did not have access in 2000, 68 percent reported being trusting at both times.

**Findings**

Scholars have written vastly about a decline in social capital in America (Putnam 2000; Verba et al. 1995; Macedo et al. 2005). Using NES data, I found that participation is not actually declining in all sectors (see figure 4). Since 1952, the NES has asked questions about campaign participation. There are three items that are studies and a four point scale is developed with 0 being no participation and 4 being maximum participation.

In 1952, the mean for all respondents was a 1.38 on the 4 point scale, and in 2004, the mean was 1.61. For 18-30 year olds, the 1952 mean was 1.44 and the 2004 mean was

1.66. Not only does this measure show an increase in participation over the last half decade, but the young generation has above average means in both ends of the scale.

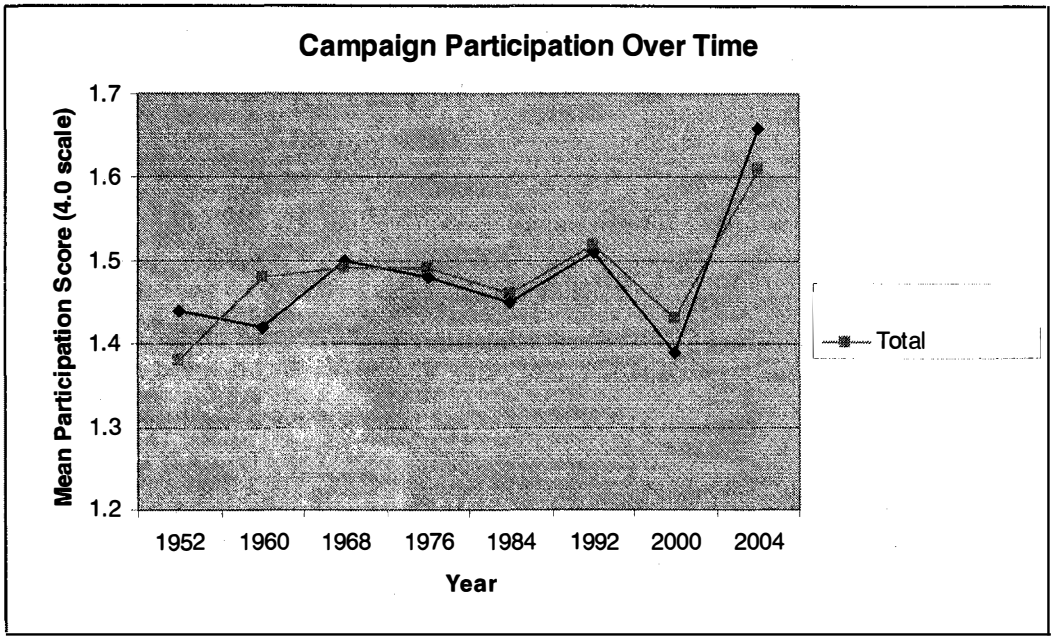


**Figure 4. Campaign participation over time. (Source NES).**

This figure shows that participation is not declining as much as some scholars would have use believe. Also, the youngest generation is not much less involved than average.

Past studies have tried to explain which way the causal arrow between voluntarism and social trust points, (Claibourn and Martin, 2000). I will work under the assumption that a relationship exists, and I personally agree more with the argument that increased participation leads to increased trust. So whether trusting people are more likely to volunteer or people who volunteer become more trusting, a significant relationship exists (see figure 5). This evidence supports the relationship between engagement and trust, but there may be an even better predictor.

If the Internet is playing a larger role in people's lives, it makes sense it should have an impact of a societal predictor like social trust. The question is which direction the effect will be. The connecting powers of the Internet may not yet be fully realized. In 2002, only 8 percent of respondents reported that they had met someone on the web and later worked with them on a civic, community, or political project (GSS). Figure 6 shows the cross tabulation of Internet access and social trust. In both figures 5 and 6, the causality cannot be determined between the variables, but trust will be set on the vertical axis. In comparing the two tables, it is evident a larger percentage of people are trusting and using the Internet than trusting and volunteering, but this reflects the fact that more people in general are using the Internet than volunteering.[3] For trusting people, the Internet access rate was slightly above the average, but for non-trusters, this access rate was almost 20 percentage points below average.

Figure 5. Civic Engagement vs. Social Trust (Source: NES)

| | Volunteered | Did Not Volunteer |
|---|---|---|
| Trusting | 64.5% | 34.3% |
| Not Trusting | 43.5% | 56.2% |

Figure 6. Internet vs. Social Trust (Source: NES)

| | Internet Access | No Internet Access |
|---|---|---|
| Trusting | 73.7% | 26.3% |
| Not Trusting | 52.4% | 46.7% |

[3] When the variables are flipped, 48 percent of people report Internet access and trust and 52 percent of people report volunteering and trust. This is more in line with the theory that trust is dependent of Internet and volunteering, and that is how the rest of the models will be run.

People who are trusting have much higher rates of Internet use. In the model, 73.7 percent of trusting people have Internet access, and only 52.4 percent of untrusting people have Internet access.

The evidence shows that there is a large increase in the Internet access of 18-30 year olds, and a large decrease in the level of social trust. This leads us to the main question: Have young adults been able to use the Internet to foster a sense of trust and build social capital?

First, a quick glance at the distributions shows that young Internet users are more trusting. In 2004, only nine percent of 18-30 year olds who did not use the Internet were trusting. On the other hand, 38 percent of 18-30 year olds who did use the Internet were trusting (NES 2004).

Second, a set of correlations was calculated. The data for the correlations are from the 2000-2004 NES panel study and data from the USCID study. These correlations will test how the Internet has changed the relationship between civic engagement and social trust is a correlation. In this model, two correlations are run: one for respondents with Internet access and one for respondents without Internet access. In both instances, voluntarism and social trust are correlated. This correlation will tell us how closely responding to the question about volunteering relates to the question of trust. If the Internet has indeed changed the classic thinking of social capital theory, it would be expected that the people without Internet access would have a higher correlation than those with Internet access.

In the NES study, for people without Internet access, voluntarism and trust resulted in a Pearson correlation of .101. This relationship is significant at the .1 level.

On the other hand, for people with Internet access, the relationship resulted in a Pearson correlation of -.006. Here the relationship is very insignificant ($p<0.9$).

When the USCID study was examined, similar results were found. For people without Internet access, voluntarism and trust resulted in a Pearson correlation of .159, and this relationship is significant at the .01 level. For people with Internet access, the relationship resulted in a Pearson correlation of .079, and again this relationship does not quite reach significance.

So, to some extent, the relationship between engagement and trust holds up for those without Internet access, but as seen in the slightly negative correlation and low significance, the model fails to explain trust for those with Internet access. In the presence of Internet, voluntarism is less correlated with trust. This means there must be something else explaining trust for Internet users.

Internet access also had a positive effect on the types of people users trust. Internet users age 18-30 had a slightly higher trust for neighbors and fellow club members, but they had a significantly higher mean trust for strangers. On a 10 point scale, the mean trust for strangers for Internet users was 3.32, and the mean trust for non-users was 2.79 (USCID). As Trippi points out, the Internet makes young people more trusting of strangers because it allows them to communicate and come together on shared interests (Trippi 2004, 223-7).

Although there is increasing levels of Internet access, there still exists the problem of the digital divide. Many of the same factors that make a person more trusting also make a person more likely to have Internet access. In order to determine whether Internet still has an effect while controlling for other demographic variables, two binary logistic

regressions were run. The first will not contain the Internet access variable, and the second model will contain the Internet access variable. The 2004 NES data will be used in both of these models because the 2000-2004 panel study has too few 18-30 year olds. In both of these models, only responses from that age group will be analyzed. Tables 1 and 2 summarize the results.

There are certain socioeconomic and demographic features that may make a person more or less trusting. Gender, education, age, social class, and household income will be included. Education, income and social class are all predicted to have positive effects on both trust and Internet access.

Some variables from past studies that have proven helpful in predicting trust have been used (Shah 1998). These variables include satisfaction with life and trust in government. Both have shown in the past to be significant in a positive way when describing trust.

| Table 1 | |
|---|---|
| No Internet, 18-30 year olds | |
| *Dependent Variable* = Interpersonal Trust | |
| *Independent Variables* | B (logistic regression) |
| Volunteered | .112 |
| Worked with others in Community | -.007 |
| Gender (0 male, 1 female) | .083 |
| Education | .310** |
| Trust in government | .192 |
| Income | .027 |
| Social Class | .166* |
| Constant | 1.808 |
| Nagelkerke Pseudo $R^2$ = .134<br>N = 239 | * = p<.10, ** = p<.05, *** = p<.01 |

| Table 2 | |
|---|---|
| Yes Internet, 18-30 year olds | |
| *Dependent Variable* = Interpersonal Trust | |
| *Independent Variables* | B (logistic regression) |
| Internet | .302** |
| Volunteered | .097 |
| Worked with others in Community | -.008 |
| Gender (0 male, 1 female) | .050 |
| Education | .234* |
| Trust in government | .219 |
| Income | .026 |
| Social Class | .124 |
| Constant | .921 |
| Nagelkerke Pseudo $R^2$ = .169<br>N = 239 | * = p<.10, ** = p<.05, *** = p<.01 |

The results from this regression model are only moderately convincing (only a small amount of the variance is being explained), but it does point to some interesting observations. For the model, the more trusting response is coded as a one and the less trusting response is coded as a zero. The education scale, age scale and income scale were all reversed to have higher education, age and income at the lower numbers. The reason for this is that most of the yes or no answers were coded as ones being yes and the twos being no.

It is important to iterate what this model does and does not do. This model uses the age control and tests the effects of Internet access against no Internet access. There can be no true measure of a non-Internet model because even those who do not have Internet access are affected by living in an Internet driven culture. The model with the Internet explained about two percent more of the variance than did the model without Internet. Only in the model without Internet access included was social class significant in the expected direction: when Internet access was added, it was insignificant. Education was significant in both models, but it was more significant in the model without Internet. It may be that the Internet levels the playing field a little. When Internet was involved, social class was insignificant and education was less so. The Internet does play a large role, compared to the other variables tested, and education is the other main predictor.[4]

After thoroughly analyzing data from the large national studies, along with help from Professor Shaw's Political Psychology class, I was able to help design and field a survey more tailored to my needs (See Appendix 1 for Study details). Although this

[4] Internet access and Education had a .344 correlation in the target age group.

survey had only 154 respondents, it was the best way I could more closely test my hypothesis.

In the sample, 82 percent of respondents reported having regular Internet access. This may be high for two reasons: first because we asked about regular Internet access instead of access in one's home, and second because the sample was from a rather successful community. One thing I hoped to more fully examine in this survey was the effects of types of Internet use on social trust. The four options for primary Internet use were email (65% of respondents), news and research (26%), social networking (5 %) and entertainment (4%). Also built into the questionnaire was a question concerning exposure to campaign information online. Communication and information gathering, the two qualities of the Internet that are expected to increase trust, are represented in these questions. Communication is increased with email and social networking, and information gathering is shown in the news/research and receiving campaign information online variables.

Unfortunately, the findings here border on insignificant. The baseline trust figure from the survey is about 54 percent trusting and 46 percent not trusting. When Internet access was analyzed, 57 percent of Internet users reported being trusting, and only 42 percent of non-users reported being trusting. Because of the small sample size and the high Internet access rates[5], this model was not even significant at the .1 level. But, I think that this is still a sign in the right direction. A full 15 point gap in trust between Internet users and non-Internet users supports my hypothesis.

[5] More than 80 percent of respondents reported having Internet access which leaves less than 20 percent that are without access. The Internet variable is close to being a variable that doesn't vary. It is hard to spot cross-case differences with so few cases in the "no access" category.

In sum, I have shown that the Internet has a significant positive impact on social trust. Also, the social capital explanation does not hold up as strongly when the Internet is taken into account.

**Conclusions**

It may not be that civic engagement and trust are decreasing but that the relationship between the two is. People use the Internet for communication and information seeking, and these are two strong predictors of social trust. As people use the Internet more often and for more reasons, it will start to have a larger effect on people's trust. So far, the evidence supports the claim that Internet use is positive for trust, but this could change if the Internet environment changes. It will be important in the future to test what role specific uses of the Internet have on social trust and engagement. Although we tried to test this in our survey, the results on Internet use were inconsequential. Internet content will be especially important as Internet access proliferates to levels even higher than today. This study has largely focused on the first half of this decade, and new research and survey methods will need to be employed to continue to gauge public opinion. Also, more research will be needed to better understand the effects of age. There may be life cycle effects or generational effects in play. Also, the fact that there is a lagging technological knowledge as age increases may mean the age groups will soon use the Internet at more similar rates and for more similar reasons. Panel study data about Internet use and trust will need to be run to better understand how and why the Internet affects people of different ages because as older people start to use the Internet more, they may show similar patterns. Currently, older people primarily use the Internet for information gathering and business email. Younger users go online to connect with others

through social networking. This allows them to find more camaraderie on the Internet than older people.

Another important lesson learned is that the study of engagement may need to change to accommodate many ways of engaging virtually. Internet users may benefit just as much from a web conversation or reading a blog as did the previous generation from face-to face conversations and reading a newspaper. That being said, the Internet will never replace the need for human contact, but it will change the ways in which we connect.

## Appendix 1

The IWU spring survey discussed was fielded March 23rd through March 26th, 2009. Overall, 154 respondents were interviewed by telephone. A random sample of telephone numbers was selected from the local directory and an equal size list of numbers was generated by extension (plus 1), meaning that the sampling frame contained not only a random sample of known numbers but an equal size sample of potential and unlisted numbers. Target respondents were selected within household by the most recent birthday method. Interviewers worked under the supervision of Greg Shaw, a member of the political science faculty at Illinois Wesleyan University. This project, like all surveys done using the university's facilities, was previously approved by the university's Institutional Review Board, as required by federal regulation. Due to limited time and manpower, the response rate for the survey was 20 percent (155/783 numbers).

## Appendix 2. Survey Question Wording by variable.

*Trust*

- Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? (ANES, GSS, USCID)
  - USCID uses a ten point scale for responses (0 is low and 10 is high).
  - ANES and GSS are people can be trusted vs. can't be too careful.

*Internet*

- Using this card, how often, if at all, do you use the internet, the World Wide Web or e-mail, at home or at work, for your personal use (not in connection with your work)? (USCID)
  - Responses are on an eight-point scale ranging from "no access" to "every day."
- Do you have access to the Internet or the World Wide Web? (ANES)
  - Responses are "yes" and "no"

*Civic Engagement*

- Volunteering (2004 ANES)
  - Many people say they have less time these days to do volunteer work. What about you, were you able to devote any time to volunteer work in the last 12 months or did you not do so?
- Campaign Participation (1948-2004 ANES)
  - 4 point scale (0 is low and 4 is high) of responses to three questions
    - Did you do any {other} work for one of the parties or candidates?
    - Did you go to any political meetings, rallies, (1984 AND LATER: speeches,) (1978,1980, 1982: fund raising) dinners, or things like that (1984 AND LATER: in support of a particular candidate)?
    - During the campaign, did you talk to any people and try to show them why they should vote for (1984 AND LATER: or against) one of the parties or candidates?

*Worked with Others in the Community*

- During the PAST 12 MONTHS, have you worked with other people to deal with some issue facing your community? (2004 ANES)

*Trust in Government*

- How much of the time do you think you can trust the government in Washington to do what is right – JUST ABOUT ALWAYS, MOST OF THE TIME, or ONLY SOME OF THE TIME? (2004 ANES)

*Social Class*

- Most people say they belong either to the middle class or the working class. Do you ever think of yourself as belonging in one of these classes?[Which one? / Well, if you had to make a choice, would you call yourself MIDDLE CLASS or WORKING CLASS? Would you say that you are about AVERAGE [middle/working] class or that you are in the UPPER PART of the [middle/working] class? (2004 ANES)

*References*


Arneil, Barbara. (2006). *Diverse Communities: The Problem with Social Capital.* Cambridge: University Press.

Bausch, Suzy. (2009). "Social Networks & Blogs Now 4th Most Popular Online Activity, Ahead of Personal Email, Nielson Reports." Nielson Online.

Best, Samuel J. and Krueger, Brian S. (2005). "Analyzing the Representativeness of Internet Political Participation." *Political Participation.* 27, 183-216.

Blanchard, Anita and Horan, Tom. (2000). "Virtual Communities and Social Capital." *Social Dimensions of Information Technology: Issues for the New Millennium.* Ed. G. David Garson. Hershey, PA: Idea Group Publishing.

Crumlish, Christian. ( 2004). *The Power of Many: How the Living Web is Transforming Politics, Business, and Everyday Life.* Alameda, CA: SYBEX Inc.

Delli Carpini, Michael X. (2000). "Gen.com: Youth, Civic Engagement, and the New Information Environment." *Political Communication.* 17, 341-349.

DiMaggio, Paul et al. (2001). "Social Implications of the Internet." *Annual Review of Sociology.* 27: 307-336.

Freidman, Thomas. (2005). *The World is Flat.* New York: Farrar, Straus & Giroux.

Green, Melanie C., and Timothy C. Brock. (1998) "Trust, Mood, and Outcomes of Friendship Determine Preferences for Real versus Ersatz Social Capital." *Political Psychology* 19, 527-544.

Huang, Li-Ning and Vincent Price. (2001). "Motivations, Goals, Information Search, and Memory about Political Candidates." *Political Psychology.* 22, 665-692.

Kasse, Max. (2000). "Political Science and the Internet." *International Political Science Review.* 21, 265-282.

Kerbel, Matthew R. and Joel David Bloom. (2005). "Blog for America and Civic Involvement." *Press/Politics* 10, 3-27.

Kraut, R. et al. (2002). "Internet Paradox Revisited." *Journal of Social Issues.* 58, 49-74.

Kraut, R et al. (1998). "Internet paradox - A social technology that reduces social involvement and psychological well-being?" *American Psychologist.* 53, 1017-1031.

Krueger, Brian. (2006). A Comparison of Conventional and Internet Political Mobilization. *American Politics Research.* 34, 759-776.

La Due Lake, Ronald and Robert Huckfeldt. (1998). *Social Capital, Social Networks, and Political Participation.* Political Psychology 19, 567-584.

Macedo, Stephen et al. (2005). *Democracy at Risk: How Political Choices Undermine Citizen Participation, and what we can do about it.* Washington D.C.: Brookings Institution Press.

Mindich, David T. Z. (2005). *Tuned Out: Why Americans Under 40 Don't Follow the News.* New York: Oxford University Press.

Newton, Kenneth. (2001). "Trust, Social Capital, Civil Society, and Democracy." *International Political Science Review.* 22, 201-214.

Norris, Pippa. (2001). *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide.* Cambridge: Cambridge University Press.

Putnam, Robert D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.

Putnam, Robert. (2000). Bowling Alone: The Collapse and Revival of American Community New York: Simon and Schuster.

Rainie, L., and J. Horrigan. (2006). "Election 2006 Online." Pew Research Center. http://www.pewInternet.org/Reports/2007/Election-2006-Online.aspx.

Robinson, Robert V. and Elton F. Jackson. (2001). "Is Trust in Others Declining in America? An Age–Period–Cohort Analysis." *Social Science Research* 30, 117–145.

Shah, Dhavan V. (1998). "Civic Engagement, Interpersonal Trust, and Television use: An Individual-Level Assessment of Social Capital." *Political Psychology* 19, 469-496.

Shah, Dhavan V., and Kwak, Nojin, Holbert, R. Lance. (2001). "'Connecting' and 'Disconnecting' with Civic Life: Patterns of Internet use and the Production of Social Capital." *Political Communication* 18, 141-162.

Shah, Dhavan et al. (2002). "Nonrecursive Models of Internet Use and Community Engagement: Questions Whether Time Spent Online Erodes Social Capital." *J&MC Quarterly*. 74, 964-987.

Skocpol, Theda and Morris P. Fiorina. (1999). *Civic Engagement in American Democracy*. Washington, D.C.: Brookings Institution Press.

Sullivan, John L. et al. (2002) "A Tale of Two Towns: Assessing the Role of Political Resources in a Community Electronic Network." *Political Behavior* 24, 55-84.

Sunstein, Cass. (2002). *Republic.com*. Princeton, N.J.: Princeton University Press.

Taylor, Paul et al. (2007). "Americans and Social Trust: Who, Where and Why." Pew Research Center. http://pewresearch.org/assets/social/pdf/SocialTrust.pdf.

Tolbert, Caroline J., and Ramona S. McNeal. (2003). "Unraveling the Effects of the Internet on Political Participation." Political Research Quarterly 56, 175-185.

Trippi, Joe. (2004). *The Revolution Will Not Be Televised: Democracy, the Internet, and the Overthrow of Everything*. New York, Reagan Books.

Uslaner, Eric M. (2004). "Trust, Civic Engagement, and the Internet." *Political Communication* 21, 223-242.

Verba, Sidney, Kay Lehman Scholzman, and Henry E. Brady. (1995). *Voice and Equality: Civic Voluntarism in American Politics*. Cambridge, MA: Harvard University Press.

Weber, Lori et al. (2003). "Who Participates and Why? An Analysis of Citizens on the Internet and the Mass Public" *Social Science Computer Review*. 21, 26-42.

Zukin, Cliff et al. (2006). *A New Engagement: Political Participation, Civic Life, and the Changing American Citizen*. Oxford: Oxford University Press.

*Data Sources*

NES Data

2000 NES
2002 NES
Cumulative 1948-2004 NES
Panel Study 2000-2004 NES

GSS Data
1976-2006 Cumulative data
PEW Internet Study
Presentation. "Data for the Congressional Internet Caucus." Lee Rainie. February 9, 2005.
United States Citizenship, Involvement and Democracy Study (USCID)