Digital Media and Political Participation Over Time in the US: Contingency and Ubiquity

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I. Introduction

Research about relationships between use of digital media and political participation is now quite substantial, stretching back to the late 1990s. Much analysis has focused on the question of whether the presence of digital media in people’s lives increases their propensity to be involved civically and politically. Many studies have produced an affirmative answer to this question, but the relationships that have been shown are very small substantively. In addition, many relationships are contingent on political interest or related motivational attributes, and in any case they do not appear in all studies or for all kinds of participation (Boulianne 2009).

In many ways, these individual-level results are underwhelming and seemingly incommensurate with the enormity of the transformation of media that has happened in the last decade. Large and visible changes are underway in the organization and pace of collective action (Bennett, Bruenig & Givens 2008), in the production of public goods (Benkler 2008), in the ways candidates campaign (Foot & Schneider 2006), and in other structural features of politics. But through all this drama, individual participation rates in the US remain comparatively undisturbed. It may seem as if, in Annie Dillard’s phrase, “a man on fire were to continue calmly sipping tea” (Dillard 1998, 249). Elsewhere, we have given reasons why this outcome is not puzzling in the US, due to the strong historical relationship between political structure and characteristics of information and communication, and the much weaker relationship between these characteristics and participation rates (Bimber 1998; 2003; Bimber, Flanagin & Stohl 2005).

In our view, research on the question of individual-level participation rates may be reaching a cross-road. It is clear what when people act politically or civically, they often turn to digital media, and this connection appears to grow stronger over the years. At the same time, the causal relationship from use of digital media to political and civic practice is quite small at best, and appears to be contingent and difficult to interpret. Further research on this question does not at this point show signs of dramatically different findings or the opening of new
theoretical avenues in the US, unless headway can be made in explaining what has happened so far.

There is a potentially interesting aspect of the phenomenon that has not been explored theoretically or empirically, namely whether the modest relationships between digital media use\(^2\) and individual-level participation rates are growing stronger or weaker over time. One sometimes detects an unstated assumption in the literature, namely that as technology becomes more widely diffused and more sophisticated over time, and as political elites become more adept at using it, then it should play a larger role in stimulating participation among citizens. If that is right, then the weak relationships that have been shown so far may increase over time, or, as Xenos & Moy (2007) have proposed, may grow less contingent on motivation and interest. This might be especially apparent following the transition from Web 1.0 to Web 2.0 technologies. On the other hand – and complementary to our own earlier arguments about the relative independence of participation decisions and information costs – it may be that there are no over-time trends, or even that as digital media become a more routine part of daily life variation in its use grows less predictive of behavior than it has been previously.

Sufficiently long time-series data are now becoming available to address this puzzle by simply framing the old participation question in terms of trends. Pursuing that topic is the purpose of this paper. In it we ask: Is digital media use growing more or less strongly associated with participation over time in the US? In what follows, we approach this problem theoretically by observing first that the relationship of digital media use to participation is likely to be highly contingent on political context – on the character of specific political contests, and on the kinds of participation of interest. For this reason one should expect a lot of short-term variation in relationships, much of which is intrinsically unpredictable. The second theoretical argument is more speculative, namely that as digital media become more a routine part of daily life, they should grow less strong as a variable-analytic tool for predicting behavior.
We explore these ideas empirically using American National Election Studies (ANES) data for five election seasons. Using this data allows us to employ generally consistent measures of the independent and dependent variables in a way that allows over-time comparisons, differentiating among several kinds of participation. The results show that a relationship exists between Internet use and an aggregated index of participation, and that this is stable over time; at the same time, for specific acts of participation, from voting to trying to persuade others during an election season, relationships are sporadic and idiosyncratic.

II. Theoretical Issues and Expectations

Several reviews of the literature on relationships between digital media use and political participation are available (Bimber 2011; Mossberger & Tolbert 2010; Xenos & Moy 2007), as is a very useful meta-analysis (Boulianne 2009). The general view in this literature might be described as follows. Digital media use has become a routine part of many people’s political practice in developed nations, especially the US. When people act politically, they often use digital media, either in support of “offline” activities such as attending meetings or rallies, or through “online” actions such as emailing elected officials or clicking on petitions. Moreover, a very modest, positive influence on participation rates from digital media use has repeatedly been shown by a variety of scholars using a variety of data sets, though this relationship does not appear in all cases and all studies.

The importance of this relationship has been difficult to assess, and has been subject to differing interpretations. For example, in her meta-analysis of thirty-eight studies, Boulianne (2009) finds an average effect size of 0.07, which is within a standard deviation of 0. As she writes: “meta-analysis suggests that the effects of Internet use on engagement are positive, but does not establish that these effects are substantial (205).”

Two points about this literature are important, the first of which is actively under discussion now by scholars. This is the fact that a strong presumption has been established that
these small, positive effects of Internet use on participation can be contingent upon mediated or moderated relationships with motivation, political interest, and related attributes. For example, Prior (2007) shows that despite a positive main effect of Internet use on participation, Internet use decreases political participation for people with a high orientation toward entertainment in their media use. In the Xenos & Moy (2007) study, political interest interacts with Internet use for some kinds of behavior, and the interaction term is larger than the main effect. Much earlier, Shah, Kwak & Holbert (2001) found that whether Internet use increases or decreases social capital is a function of whether people use it for recreational or information purposes, which presumably reflect differences in motivation and interest in civic affairs. Boulianne (2009) surmises that political interest mediates the relationship between Internet use and participation, because across studies Internet use variables tend to become insignificant when political interest is added, rather than the other way around. In a Spanish study, Borge & Cardenal (2011) show a direct effect of digital media use on participation, and find that political interest is less important a predictor of participation for skilled Internet users.

The second feature of this literature has received less somewhat less adequate attention: not all technology is the same. It goes without saying that digital media now comprise a wide array of constituent technologies and “affordances.” Even in the Web 1.0 days, it was clear that email use is qualitatively different with respect to politics than overall web use, and also that some kinds of web use, such as entertainment activities, are very much different than others, such as news use. At the level of operationalization and measurement, most researchers have been sensitive to this fact, and as a result measures of digital media use have grown more sophisticated and highly ramified over time. For instance, when the Pew Internet & American Life Project began their time series data collection in 2000, they measured using computers and using the Internet, along with a list of online activities such as email, getting news, and searching for or finding information about various topics such as travel, health, or products. Over the next ten years, Pew introduced many new questions to keep up with
diversification of online activities. In 2002, they added questions about taking part in an online group that one belongs to, and about creating a blog. In 2004, they introduced questions about rating a product or service and logging into the Internet using a wireless device. In 2006 came questions about posting comments to a blog and creating one’s own web page. By 2008, their questions multiplied greatly: they asked about using Twitter, watching video on a site like YouTube, uploading photos for sharing, using a cell phone for texting and accessing the Internet, receiving text messages from political candidates or parties. In 2009 Pew asked about creating a web page “yesterday” and visiting a virtual world. 2010 brought new questions about using social networking sites for political purposes, and about using a location service such as Foursquare or Gowalla. These changes in the Pew series are an indicator of the growing complexity of the measurement problem and the challenge facing survey researchers attempting to keep abreast of innovation – as well as limits on time-series data in such a rapidly changing environment.

Technologies are both differentiating from one another and integrating with one another. That is, more kinds of actions can be done with more kinds of technologies and “apps.” At the same time, these are increasingly intertwined, with fewer discrete boundaries among them. For a survey researcher looking for causal relationships between one or another use of technology and a behavior such as voting, this problem is approaching intractability. Imagine the citizen who receives a tweet, clicks on a link in it to open Facebook on their phone, where they watch a news clip from MSNBC embedded in a friend’s page, then “like” that video and finally send a message to that friend. What media has the person used? How will that person answer a survey researcher’s question about how many days a week they typically watch news, or how many hours a day they use the Internet, and how extensively they use their phone? Despite all these challenges, at the level of theory and the framing of problems, a lot of research has generalized about effects of “the Internet” on participation and engagement.
The main distinction that is being made now with some success in survey research is between social media and other uses of digital media. To a degree, this is a useful catch-all distinction between newer and older forms of Internet use. For instance, elsewhere we find social media use mediates the relationship between overall Internet use and acts of political consumerism (De Zúñiga, Copeland & Bimber 2011). However, it is clear that not all social media have the same implications for politics – Twitter is not the same as YouTube. Even social media serving apparently similar functions can have different implications for politics. For people interested in generalizing about social media, the results of Pasek, More & Romer (2009) are disconcerting. Whether social networking sites increase or decrease social capital depends upon what the site is: They find Facebook use is positively associated with social capital, while MySpace use is negatively associated. The implications of Google+ are not at all clear. Researchers may have reached a point where adequately understanding what someone does online is beyond the reach of all but the most elaborate survey instruments. In our view, measurement inconsistencies and contingencies plague the literature on digital media use. This fact alone can explain some of the discrepant findings over time, particularly in studies relying on different survey data sets.

Beyond these two issues of interactions and technological complexity, there are three additional aspects of the relationship between digital media use and individual-level measures of participation that have not been adequately explored. These involve: A) contingencies of timing, context, and type of participation; B) the more general phenomenon of the ubiquity of technology in political practice; and C) potential differences between younger citizens and the rest of the population. We suspect that these explain some of the inconsistent findings over time, as well as the small size of effects that have been reported so far.
A. Contingency


There are several explanations for why the year of studies matters. Survey instrumentation has changed over time, as the example of the Pew series above illustrates. Boulianne’s meta-analysis, for example, may be picking up effects of these changes across multiple studies. It may also be, as she suggests, that the role of political interest as a mediator or moderator is changing over time. Another possibility, which is in our view most likely the strongest candidate, is that campaigns matter – or, more generally, the character of specific political events affects the relationship between Internet use and participation. Some election campaigns are closer than others, some are more successful at mobilization than others, and the wide array of mobilization strategies of interest groups change over time and are more or less successful.

Perhaps the best recent study of participation and Internet use in the US is Xenos & Moy (2007), from which we learn that both direct and indirect relationships between Internet use and participation exist, depending on the type of participation. Their analysis rests, however, solely on National Election Studies (ANES) data from the 2004 election. Four years later, Barack Obama used digital media in historic ways and very much unlike what candidates had done in 2004 and earlier. As Vaccari (2010, 329) writes about the Obama election, the impact of digital
media was "contingent upon the candidate's personality and message, and in turn by their ability to generate movement-like enthusiasm among supporters." It seems reasonable to assume that beyond monotonic trends toward greater diffusion of technology, and beyond the simple Web 1.0 – Web 2.0 distinction that straddles the four years between 2004 and 2008, how digital media use might have exerted an influence on participation was a function of who was running, how they ran, and which citizens were interested in their campaigns. It is by no means obvious that in his re-election effort in 2012 Obama’s use of digital media will be as consequential as it was in 2008.

A good deal of the literature has rested on an implicit assumption of a monotonic trend upward in the strength of relationships, as both political elites and citizens become more adept over time, or due to other un-written assumptions. We see no reason to believe that any such learning effects would be larger than unpredictable, event-specific influences. It seems likely to us that the character of specific political efforts may strongly shape the relationship with digital media in ways that are idiosyncratic. If so, this would go a long way toward explaining the time-dependency in studies. It would also mean that there is an inherently unpredictable component in the relationship between digital media use and behavior.

Tolbert & Mossberger (2006) find digital media use associated with trust in government at the local level but not the national level. Bimber (2003) finds digital media use associated with voting, attending an event, and donating money, but not with displaying a message or working on a campaign, using ANES data from 2000. Using 1998 ANES data, he finds a relationship only with donating money. Xenos & Moy (2007) find that an association between Internet use and more demanding political acts, such as volunteering or engaging in political discussions, is contingent on political interest, while other political acts are not, using ANES 2004 data. Dalton (2008) finds “Internet activism,” such as forwarding political email, to be positively associated with norms of engaged citizenship, which are in turn associated with a variety of direct political actions, but which are not related to voting. Bimber, Flanagin & Stohl (forthcoming) study participation within organizations using their own survey data assessing a range of contributions toward the collective goals of three large membership-based groups. They find that participation in organizational collective action is associated with visits to the organizations’ web sites, is unrelated to how much overall time people spend online, and is associated with Internet skill for citizens with certain participatory styles but not others.

It seems clear, then, that the relationships between digital media use and participation may vary not only with time and the nature of events, but with type of participation, and that these may themselves interact. A logical next step in the literature is to attempt to classify participatory acts, looking for relationships with clusters of actions or underlying factor structures. However, no consensus exists yet about what clusters or patterns might exist across types of participation. Efforts to classify behaviors and correlate those with digital media use have not produced any lasting generalities. Aggregating along the traditional “conventional” and “unconventional” distinction has not been consistently productive in research on digital media, probably in part because of conceptual problems with the distinction itself (Harris & Gillion 2010). Neither has the difference between “online” and “offline” political acts served as an empirically sound distinction (Cantijoch & Gibson 2011). It is clear, however, that whether digital media use
is associated with "political participation" or "civic engagement" varies with which political and civic acts are of interest.

It is reasonable to expect that variation across types of political action interacts with the contingencies above associated with timing and political context interact. If so, the result would be that while people commonly employ digital media of various kinds in their political practices, relationships between participation rates and digital media use are likely to exhibit a good deal of idiosyncrasy and unpredictability. We take this as the first hypothesis to be tested empirically in this project, namely that the relationship between digital media use and participation will vary across political actions and over time in the short-term.

B. Ubiquity

When the first research questions about digital media and participation were framed in the 1990s, email and the Web were novel, and they were scarce. It was natural to ask whether more or less use by some people was associated with more or less political participation or civic engagement. That is, treating "Internet use" as a variable that could be conceptualized cleanly and measured discretely, and as something which might co-vary with political behavior, made considerable sense as an empirical proposition, although there have always been sound theoretical reasons to doubt that any causal relationship would turn out to be important (Bimber 2003). In other words, the project of searching for variable-analytic effects of Internet use on political behavior rested on the idea that variation in online behavior could be associated with variation in offline behavior in a causal way.

However, digital media are shifting from being novel to being routine, and from being scarce to being ubiquitous. These changes raise questions about the utility of the variable-analytic approach to thinking about technology. In the US 77% of all adults use the Internet. For people under 30, the figure is 90%, while for those between 30 and 49 it is 84% (Pew 2010). Especially for many young people, use of digital media is not a discrete activity cleanly
separated from the rest of their daily lives. They tweet while watching television, text while at
dinners, and upload video or photos while at dinner; the phone (computer) in their pocket or
purse might even be tracking where they are and perhaps even what store they are in, so as to
deliver messages based on their location or to help friends locate them. This fact makes the
problem of isolating co-variation between Internet use and other activities problematic.

Xenos and Moy (2007, 715) have speculated that as new media become more deeply
integrated with everyday life, previously contingent relationships may give way to more direct
effects. We view the opposite outcome as equally likely. One could ask in 1975 how many times
a week a person read a newspaper, or how many hours of television a person watched each
day. With that data, one could look for associations with such behaviors as contacting a public
official. It is less often the case that one can meaningfully ask such questions about digital
media, especially since the transition to mobile devices. In 2010, in fact, mobile smartphone
shipments exceeded personal computer shipments for the first time in history (Ackerman &
Guizzo 2011), marking a milestone in the transition from a world of Internet use while sitting at a
computer to a world of continuous connectivity with digital media.

To the extent that digital media are seamlessly integrated into people’s daily lives, as is
often said casually, then the variable-analytic approach to associating variation in digital media
use with political or civic behavior is going to face fundamental limits. As it becomes routine or
natural to use digital media to accomplish whatever one undertakes, from contacting a friend
about dinner to expressing support for a political cause or booking a hotel room, then
associations between variation in digital media use and variation in other behaviors may grow
trivial. These possibilities raise the question of whether there are long-term trends in the
influence of digital media use on political participation. Our first hypothesis above predicts
idiosyncratic variation across types of participation and across years. In addition, we consider
the possibility of a long-term trend toward diminishing influence. This comprises our second
hypothesis, namely that a trend exists toward weaker correspondence between variation in digital media use and variation in participation over time, independent of other factors.

C. The Age Question

Clearly digital media use is more strongly associated with younger citizens than older ones. A great deal of literature suggests reasons for being sensitive to possibly different conclusions about the participation question for younger people (Bennett 2008; Mossberger & Tolbert 2010; Schlozman, Verba & Brady 2010; Zukin et al. 2007). Studies examining age effects typically do not show an obvious threshold age below which political use of digital media is more common, however. Digital media use declines, for the most part, linearly with age, and in some cases the only sharp change in slope occurs at age 60 or 65 (Mossberger & Tolbert 2010). In fact, it may be more helpful to think about the age effects in digital media use as a special aversion on the part of the very old than as a special affinity on the part of youth. Our expectation about age is that effects of idiosyncratic variation overlaid on an overall downward trend in the size of coefficients should be even stronger for younger citizens, as technology is more ubiquitous and more deeply a part of daily life for them than for the oldest citizens.

However it is not necessarily the case that younger people are simply more likely to use digital media for politics. The reason is well understood: while younger people are more likely to be online than older ones, especially much older ones, they are less likely to be interested and involved in politics. ANES data illustrate this point very clearly. People younger than age 28 have been less likely to use the Internet for campaign information than their counterparts ages 28-37 and 38-47 in every presidential election going back to 1996. As Figure 1 shows, in 2008, 2004, and 2000, people under 28 were less likely to use the Internet for political information than those aged 48-57.
Other studies have told a somewhat different story, however. The Pew post-election survey in 2008, reported by Smith (2009), measured a variety of specific uses of digital media for politics, and found quite strong and negative relationships with age. Nearly three quarters of people 18-29 used the Internet politically in some way, compared with about half of people 50-64, and less than a quarter of those 65 and older. Figure 2 depicts these data, breaking out specific forms of political use of the Internet.

Figure 1. Use of the Internet for Campaign Information by Age, 1996-2008, in ANES Data

Notes: Source is American National Election Studies. Values are raw counts.

Figure 2. Political Use of the Internet in 2008 Election in Pew Data.

Notes: Source is Smith (2009). Values are % of all adults performing each action.
We expect the effect of age on the relationship between digital media use and participation to be potentially important but also a moving target. The 2008 presidential election in the US, which is reflected in the Pew study above, was special in a number of ways, particularly through the Obama campaign’s successful appeals to younger voters through digital media. Also, with each passing year, the cohort of older citizens for whom the digital media are an unfamiliar novelty decreases through attrition, while the cohorts of younger citizens for whom the media are a regular part of life grows.

III. Data

Our hypotheses require time series data with consistent questions about both digital media use and political participation, and these need to reach back several election cycles – ideally more than three or four. No data sets perfectly meet our criteria. By far the most thorough time series on digital media is that of the Pew Internet and American Life Project, which has data on use of the Internet going back to 2000. Yet, it lacks measurements in the 1990s on digital media, and worse, it also lacks consistent questions over time about standard acts of political participation. The National Annenberg Election Survey (NAES) contains in-depth questions about both digital media and political participation, and these include elections years 2000, 2004, and 2008, making this data set a candidate for analysis, but not ideal for over-time analysis until at least one more election occurs. The ANES’s thorough measures of political participation have been accompanied by two items on Internet use since 1996, with the exception of the 2002 midterm election survey, as well as 2006 when no midterm survey was conducted by ANES at all.

While one could wish for those two missing years, and especially for much more thorough measurement of digital media use by ANES, these data provide by far the longest time series and so we chose it for our analysis. Another important reason for examining ANES data
is that it has been important in the US literature so far (e.g. Bimber 2003, Xenos & Moy 2007; Prior 2007). Boulianne (2009) recommends using ANES to test whether the effect of Internet use is increasing over time. While her speculation is opposite to our own hypothesis, her proposal that other scholars look for trends is a solid one. We employed the 1996, 1998, 2000, 2004, and 2008 ANES datasets. The measure of Internet use of interest in this data is the question asking whether people used the Internet for political information – the question that has been featured in the literature.

Our approach to the research problem was to first develop a standard set of predictors of political participation that we could apply across years and dependent variables. For this, we used as independent variables: education, age, income, gender, whether contacted by a candidate or party, political interest, general social trust, and internal political efficacy, as well as the ANES item for seeing election campaign information on Internet. We used this set of variables to model the following six dependent variables using logistic regression: voting; displaying a button or bumper sticker; attending a meeting or rally; working for a party or campaign; donating money to candidate, party or other group; and attempting to persuade others. We also created a participation index from these items, and modeled this using OLS. Rather than using an aggregate dataset with variables for year or year x Internet use interactions, we created separate models for each year. This permits easier comparisons with results of other studies, which have generally modeled years separately. The approach required a large number of models. For each year we created seven models, on for each specific action and one for the index; we then repeated this for each of the five years of ANES data, which required thirty-five models. To explore age effects, we repeated the entire thirty-five models for respondents under age 36, for a total of seventy regression models. This age break-point is somewhat arbitrary, since neither ANES and Pew data show any clear age threshold. However this grouping should capture any important younger vs. older distinctions. To simplify
interpretation of these models, we mainly report the coefficients on Internet use other time below. The full models are available from the authors.

**IV. Findings**

Our basic model of participation is shown in Table 1. Data here are for 2008, for all ages, and show results for predicting the participation index and voting. We see education, gender, contact by mobilizers, and political interest are predictive in both cases, while additionally age and income are predictive in the voting model only.

Table 1. Basic Participation Model, 2008, All Ages:
Participation Index and Voting

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<tr>
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<th>Participation Index</th>
<th>Voting</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE</td>
</tr>
<tr>
<td>Education</td>
<td>0.116</td>
<td>0.028</td>
</tr>
<tr>
<td>Age</td>
<td>0.002</td>
<td>0.002</td>
</tr>
<tr>
<td>Income</td>
<td>0.008</td>
<td>0.007</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.155</td>
<td>0.076</td>
</tr>
<tr>
<td>Contacted</td>
<td>0.294</td>
<td>0.078</td>
</tr>
<tr>
<td>Interest</td>
<td>0.294</td>
<td>0.041</td>
</tr>
<tr>
<td>Trust others</td>
<td>0.093</td>
<td>0.089</td>
</tr>
<tr>
<td>Efficacy</td>
<td>-0.051</td>
<td>0.090</td>
</tr>
<tr>
<td>Used Internet for political information</td>
<td>0.169</td>
<td>0.086</td>
</tr>
<tr>
<td>Constant</td>
<td>0.112</td>
<td>0.186</td>
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</tbody>
</table>

OLS Model, N = 669, F = 20.24 p = 0.00, \( r^2 = 0.22 \)
Logit Model, N = 669, Chi-sq. = 126.64, p = 0.00, Pseudo \( r^2 = 0.19 \)

Source: ANES, 2008

Participation Index

Of particular interest here is the coefficient on the political Internet use variable, which is significant for the index but not for voting. Our concern is with comparing the value of this over time and across all the actions. To begin, we consider the coefficients on seeing political information on the Internet in OLS models predicting the participation index. We ran the model
for each of the five election years, and then plotted only this coefficient for each year to make the over-time comparison readily visible. In every year, the variable for seeing political information online is significant for all ages, as shown in Figure 3. Visually, there appears to be an overall downward trend. Yet, significance tests using Z-scores constructed from each pair of coefficients show that there are no significant differences between any of the years in Figure 3. This does not support the hypothesis of highly variable relationships from year to year. However, the aggregated index may mask variability in the individual components. This also does not support the hypothesis of a longer-term trend downward (or upward) in the importance of the Internet as a stimulus to behavior.

When we restrict the analysis to only people ages 18-35, the results are quite different, as shown in the dotted line in Figure 3. Here, the variable for seeing political information online is significant only in 2000. For younger people, seeing political information online contributed to aggregate participation only in that one year. Here the implication is that Internet use is not significant enough to establish either short-term variation or a longer term trend.
Six Political Actions

When the items comprising the participation index are disaggregated and modeled individually using logistic regression, the results show a sporadic and idiosyncratic set of relationships, as we hypothesized. For all ages combined, the variable for seeing political information online is significant only for: donating in 1998; displaying a message, attending a political event, and persuading others in 2004; and working on a campaign in 2008. That is, in the thirty models depicting year-action combinations, this variable reaches significance in only five. For people ages 18-35, seeing political information online is significant in only three models, predicting voting in 1998 and 2000, and attempting to persuade others in 2004. These results are shown in Figure 4, and they support the hypothesis of contingency and short term variation, but not the hypothesis of an overall trend. They also support the expectation that variation in younger people’s use of the Internet shows less overall correspondence with variation in political behavior than does the behavior of the population as a whole.
Figure 4. The Internet and Six Types of Participation in the ANES, 1996-2008

Notes: Values are logistic regression coefficients for “saw political information on the Internet.”

○ □ = coefficient is significant at 0.05 level.
To see whether our results are sensitive to the inclusion of an interaction term for political interest and seeing political information online, we ran another set of models including an interest x political Internet use term. We confined this analysis to the overall participation index as an outcome, for all ages, because it was the only dependent variable that reliably showed main effects from political Internet use. The results, which are shown in Figure 5, show significant relationships only twice, in 1998 and 2008, with the coefficient somewhat smaller in 2008. These results do not support the idea that any overall trend exists in the moderated relationship.

Figure 5. The Internet and Aggregate Participation in the ANES, 1996-2008 With Interaction Term for Political Interest

Notes: Values are logistic regression coefficients for “saw political information on the Internet X political interest;” ○ = coefficient is significant at 0.05 level.

IV. Discussion

Is there a stable relationship between Internet use and political participation in the US? The results of this study suggest that the answer is “no” for any of the six actions we examined.

Our first hypothesis, namely that relationships are idiosyncratic, is strongly supported by the
analysis of the specific political actions. Controlling for political interest, efficacy, whether people have been contacted in a mobilization effort, and other standard controls, seeing political information predicts some political acts in some years. In no year does seeing political information predict more than three of the six acts we measured, and except for 2004 in no year does it predict more than one act. Likewise, for no political action is seeing political information online predictive in more than one election season of the five we examined. This overall picture is even more vivid for people aged 18-35: a few relationships appear, but these do not persist across years or actions.

Research attempting to classify political acts by identifying underlying factor structures and predicting these with digital media variables holds some promise. The key question raised in the present ANES results is whether these would also be contingent on context and timing, and whether any apparently stable relationships over time would mask considerable year-to-year variation in specific actions of interest. We consider it an open question at this stage how much of this effect is inherently unpredictable, and how much may be explainable by more subtle theories or may be resolved by factoring political behaviors, a task we will undertake in subsequent analysis.

In the data on individual actions, we find no support for our second hypothesis of an overall trend downward in the importance of political information online. In fact the relationships start out weak and contingent in 1996, and they remain that way, neither growing nor declining over time. Only in the aggregate participation index does a stable relationship emerge. At this stage, we can say: one can predict that Internet use plays a modest role in electoral behavior, but one can not say in advance which behavior that will be in any particular contest.

The weaker relationships between digital media use and participation among younger citizens may in principle reflect either age or cohort effects. Age effects would likely be due to differences in orientation toward politics across lifespan that are not accounted for through political interest, trust, or efficacy variables. If so, then the pattern we find here is likely to be
stable over time, where younger people exhibit even more sporadic relationships between technology and participation than older ones. The cohort-effect interpretation is more consistent with our theoretical expectation, namely that variation in digital media use is less predictive of behavior among that cohort of people for whom digital media are a routine part of daily practice, whether political or not – younger citizens as opposed to the oldest ones. If this interpretation is correct, then over the long term models for all citizens would look more like those for our present 18-35 group.

The main limitation of this study is that the ANES measure for political use of the Internet is not especially robust. We used this measure because it has been influential in the literature so far, underlying several well-cited studies that are central to the debate on this topic, and also because ANES provides the longest time-series available. However, it will be important to perform similar analysis in other time-series data sets as these become available – though none will cover years before 2000. After 2012, the National Annenberg Election Survey will have data for four presidential electoral cycles and will be a good candidate for exploring this line of analysis further using better measures of digital media use. It will be especially interesting to look at these issues over time in other countries, as longitudinal datasets become available.

If other data sets produce similar findings to these, then one implication may be that digital media use is increasingly part of the context of politics, rather than an unevenly employed tool whose variable use from one citizen to another has consistent and predictable individual-level consequences. In this sense, one wonders whether digital media may eventually exert a force in any one society not unlike political culture, the extent of civil liberties and rights, the presence of a free press, or other structures of advanced post-industrial, networked societies. Because variable-analytic approaches are not helpful in explaining within-context variation in behavior, this phenomenon may create limits on the style of analysis that has been common in the literature so far.
For political elites, digital media have fast become a commodity. This is to say that most or all campaigns will employ roughly similar technology (e.g. Facebook, Twitter, email). Moreover, the campaigns most successful at using technologies for political mobilization and persuasion may not necessarily be those that have adopted the latest bells and whistles, or those that successfully mimic another campaign’s special strategy with technology. Instead, the most successful campaigns at using technology may simply be the campaigns that are most successful in other ways (Vaccari 2010). The commodification of digital media among political elites means that how campaigns are run are affected by the presence of digital media, and these changes may affect all citizens’ relationship to campaigns, whether they are “online” a great deal or a little. As Dutton (2007) suggests, digital media change the nature of democracy when a sufficient number of networked people are using it, not only when everyone uses it.

More generally still, digital media use appears to be shaping culture. From digital media come new practices of “sharing,” new expectations about immediacy, greatly increased expectations of choice, an emphasis on authenticity, and strengthened norms of lifestyle expression and identity creation. These norms and values are likely to spread generally, and to shape the political context in which all citizens find themselves, whether they themselves use any particular technological affordance more or less than their neighbor.

To be sure, the increasing ubiquity of technology in individuals’ lives and its diffuse influence on culture and political context do not mean that individual-level variation of all kinds will diminish or grow unimportant. For instance, many media-effects at the individual level are and will remain important. The extent to which more ideologically-committed people selectively expose themselves to messages may well be increasing over time due to the rise of digital media. On the other hand, the extent to which individual-level variation in Internet skill remains important is more of an open question, especially with generational change and with technological changes that enhance what can be accomplished by citizens without special skills.
The extent to which this contextualization of digital media will proceed is unclear. In the study of technology, media, and society generally, scholars theorizing at a high level of abstraction have indeed generally treated technology in ways consistent with the idea of context. In Castells’s network society, Bell’s post-industrialism, and Beniger’s “control revolution,” technology changes socio-political systems for all people within a society, altering opportunity structures, the nature of ties between people, the extent of hierarchical and vertical structures as opposed to horizontal ones, the role of specialized information and needs for administrative control, and so on. These are theories about changing practices, norms and structures within which people operate. We can explain variation across societies or within a society over time using such macro-scale, contextual theories, but these have less to say about how one person’s experience of technology differs from another’s. On the other hand, research on technology and individual-level behavior has instead generally treated technology use as a variable, as in the case of the search for effects of Internet use on political participation. This approach implicitly rejects the assumption that technology changes the context of politics for everyone, or has become a universal practice that lacks the kind of meaningful variance needed for predicting one variable from another.

To some degree, whether one thinks of digital media as a variable in people’s lives or a part of the context in which they live is a question of academic taste: Is one interested in explanation at the individual level or the macro-scale, in how groups of people differ from one another or in the trajectory of all groups in times of change? At the same time, how one thinks of this problem should be grounded in what evidence says about where meaningful variation is found. It is probably premature to declare that digital media have reached a stage where they simply constitute a context that is relatively constant and unvarying across people in the US, but the gradual contextualization of digital media should be considered more closely by scholars. The manifest influence of digital media at the systemic level in politics, as well as its idiosyncratic and inconsistent relationships with various individual-level behaviors, should
condition scholars' efforts to measure and model the association between use of digital media and political participation.
References


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2 We prefer the term “digital media” for referring generally to the Internet and associated technologies such as smartphone-based social networking and texting.

3 There was a wording change in 2008, when this measure changed from a dichotomous question to a frequency question.