

# The Effects of Social Media on Political Participation and Candidate Image Evaluations in the 2012 Iowa Caucuses

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**Daniela V. Dimitrova<sup>1</sup> and Dianne Bystrom<sup>1</sup>**

## Abstract

Much academic debate has centered on the impact of new technologies on democracy. This study examines the effects of social media on political participation and candidate image evaluations in the first-in-the-nation Iowa caucuses. Multivariate analyses show that social media have no effects on likelihood of caucus attendance but influence perceptions of candidate traits among the sample of Iowans drawn here. The study also addresses the role of traditional media as channels for political information during the caucuses.

## Keywords

social media, political participation, candidate image, Iowa caucuses, media effects

From its early days in the mid-1990s to its most recent social media and microblogging platforms, the Internet with its various new applications has affected the way politics works. Although there is little consensus on what effects these technologies have beyond increasing use and excitement among the electorate, a growing body of U.S. and international research documents generally positive effects (Bakker & de Vreese, 2011; Boulianne, 2009; Hendricks & Denton, 2010; Kenski & Stroud, 2006).

As most of these studies focus on national elections, research is lacking on the use of online media in early caucuses and primaries—the critical times when voters have

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<sup>1</sup>Iowa State University, Ames, IA, USA

## Corresponding Author:

Daniela V. Dimitrova, Greenlee School of Journalism and Communication, Iowa State University, 117 Hamilton Hall, Ames, IA 50011, USA.

Email: [danielad@iastate.edu](mailto:danielad@iastate.edu)

an opportunity to form or solidify their opinions of the political candidates. Therefore, this study examines the role of new technologies in the early stage of the presidential nomination process, focusing on the following question: How do these new media forms affect political participation and also evaluations of political candidate image among the electorate?

Specifically, we examine the effects of social media on voters leading up to the Iowa caucuses—the nation's first test of presidential candidate strength. Although the Iowa caucuses have been the first step in the presidential nominating process since 1972, its national influence was solidified in 1976 when Jimmy Carter's strong showing launched him from virtual unknown to the front-runner and eventual Democratic nominee (Winebrenner & Goldford, 2010). Since then, most presidential candidates in both major political parties have used Iowa as a testing ground with national and international media following their progress and, thus, elevating their importance.

Although the winners of the Iowa caucuses did not advance to earn their parties' nomination from 1984 to 1996, no candidate who has finished worse than third in Iowa has gone on to win a major party presidential nomination since 1972 (Winebrenner & Goldford, 2010). Thus, the Iowa caucuses are often credited with winnowing the field of presidential hopefuls as the presidential nomination process ensues. And, with Republican George W. Bush and Democrat Barack Obama winning the Iowa caucuses in 2000 and in 2008, respectively, their party's nomination, and the White House, the importance of this first test of presidential candidate preference was once again elevated going into the 2012 election.

## Internet Use for Political Purposes

Online news information sources have become an indispensable part of the American public's media diet. The results of a January 2012 survey conducted by the Pew Research Center for the People and the Press revealed that 25% of American adults were regularly learning about the presidential candidates and campaigns from the Internet. The regular use of the Internet as a source of campaign news has almost doubled since the 2004 presidential election (Pew Research Center, 2012).

According to the Pew report, the age gap between Americans who use the Internet as a source for campaign news diminished in 2012 between most age groups. The Internet was used most frequently as a source of campaign information by Americans ages 30 to 49 years in 2012—33%—compared with 29% of those 18 to 29 years old, 21% of those 50 to 64 years old, and 11% of those 65 years and older (Pew Research Center, 2012). Comparatively, 36% of those surveyed said they regularly turned to cable news networks for campaign news, 32% cited local television news, 26% used national network news, and just 20% reported learning about the candidates and campaigns from newspapers (Pew Research Center, 2012).

The increasing popularity of online media across age groups has led to a steady growth in the number of studies looking at how such media influence voters. The following section offers a brief summary of research in this area.

## Online Media and Political Participation

Scholars in political communication generally agree that both traditional and online media affect how people learn about and engage in the political process. However, research on the effects of traditional media sources, primarily television, on political participation has produced different conclusions. Some scholars (e.g., Dalton, 2002; de Vreese & Boomgaarden, 2006; Norris, 2000; Pinkleton, Austin, & Fortman, 1998) have found that traditional media sources inform and mobilize voters. Others (e.g., Cappella and Jamieson, 1997; Gentzkow, 2006; Putnam, 2000) have argued that media use contributes to political cynicism, inefficacy, and disengagement.

A recent meta-analysis of research on the effects of different new media technologies on political and civic engagement determined that most academic studies have found positive effects (Boulianne, 2009). According to the *Encyclopedia of Political Communication*, new media technologies encompass online tools such as blogging, podcasting, political party/candidate websites, social networks, and online video-sharing websites (Kaid & Holtz-Bacha, 2008).

Early studies in this area examined the effects of Internet use in general and online news use in particular. For example, Shah, Kwak, and Holbert (2001) showed that Internet use for information seeking was positively related to civic engagement and trust. Tolbert and McNeal (2003) documented that both Internet access and online news use for political purposes had a positive effect on the likelihood of voting in the 1996 and 2000 presidential elections. Also in the 2000 election, Kenski and Stroud (2006) showed that Internet access and exposure to information about the presidential campaign online were significantly associated with political participation. Similarly, reading online news and online political discussion had a positive effect on vote likelihood in the 2004 election (Mossberger, Tolbert, & McNeal, 2008). A study of college students a month prior to the 2008 presidential election showed that political activity on Facebook and exposure to others' political activity on Facebook were positive predictors of general political participation (Vitak et al., 2011).

Beyond the context of elections in the United States, a study of the 2010 Swedish election showed that social media use as well as visiting political party websites significantly influenced political participation among voters (Dimitrova, Shehata, Strömbäck, & Nord, 2011). Other research from Western Europe also found a positive relationship between offline participation and different forms of online activity. For example, Internet news use, online services, participation in online clubs/organizations, and use of online forums were positive predictors of political participation among a national sample of 16- to 24-year-olds in the Netherlands (Bakker & de Vreese, 2011). Similarly, Quintelier and Vissers (2008) found that consuming online news and other online activities were positively related to political participation among Belgian teenagers. Recent research from Germany suggests a positive association between access to broadband Internet and voter participation (Czernich, 2012).

Little research has been conducted on social media use and its effects on participation in primaries and caucuses leading up to the general election in U.S. presidential politics. However, in their 2010 book on the Iowa caucuses and sequential elections,

Redlawsk, Tolbert, and Donovan reported on the results of three surveys that included questions on voters' online political participation prior to the January 2008 Iowa caucuses, Super Tuesday primaries in March, and Pennsylvania primary in April. They found that Internet use had a positive effect on voters' offline political participation, thought given to the election, and their likelihood to follow campaign news prior to the 2008 Iowa caucuses (Redlawsk et al., 2010).

On the basis of the research summarized above, we anticipate that social media use will have a positive effect on political participation in the 2012 Iowa caucuses:

*Hypothesis 1:* Higher frequency of social media use leads to increased likelihood of caucus attendance.

## Social Media and Candidate Images

In contemporary politics, voters have few chances to meet political candidates in person—although Iowa voters typically are afforded more opportunities than most during the precaucus period. Nevertheless, voters increasingly need to rely on the media for political information and forming or modifying their perceptions of candidate personal traits. Both of these factors—political knowledge and candidate image—play a key role in vote choice.

Political communication research has shown that both traditional and nontraditional media affect what voters think about political candidates. Studies dating back to the 1970s have investigated the impact of newspapers and television on voter perceptions of candidate image. For example, Hoffstetter, Zukin, and Buss (1978) found that television exposure during the 1972 presidential campaign resulted in increased voter interest in the personalities of the candidates. They also concluded that reading newspapers was most strongly correlated with campaign imagery. However, McLeod, Glynn, and McDonald (1983) determined that television-reliant voters used candidate image information more often than newspaper-reliant voters in making decisions in the 1980 presidential election.

Numerous studies also have documented the impact of such political information sources as televised debates, television commercials, talk shows, and late-night comedy shows on voter evaluations of presidential candidates. For instance, Benoit, McKinney, and Stephenson (2002) found that watching primary debates featuring candidates from either major political party can influence voter perceptions of candidate character. Political ads are also critical. A long line of research confirms that exposure to campaign spots on television can affect candidate image evaluation, including judgments about their character traits and likeability (Kaid, 2004).

In a 2006 study, Moy, Xenos, and Hess found that watching late-night comedy shows—such as *Late Night With David Letterman*—influenced viewers' evaluations of the candidates who appeared on them during the 2000 presidential campaign. Baumgartner and Morris (2006) found that young voters exposed to jokes about George W. Bush and John Kerry on *The Daily Show* tended to rate both candidates more negatively in the 2004 campaign. In 2007, Baumgartner found that viewing

online political humor (which is usually partisan in nature) had a negative impact on young voters' evaluations of President George W. Bush. However, viewing an online JibJab video—which employed self-effacing humor—had a positive effect on their evaluations of President Bush. Internet use and attention to political websites had a significant effect on the images of President Bill Clinton in the 1996 presidential campaign (Johnson, Braima, & Sothirajah, 1999). Similarly, Pfau and Eveland (1996) showed that nontraditional media influence voters' views on candidate competence and image among voters.

While numerous studies have investigated the role of candidate image evaluation in political campaigns, there is little agreement on which traits are the most important to voters. Benoit and McHale (2004) organized the various traits mentioned in the literature into leadership ability, policy emphases, and such personal qualities as honesty, intelligence, compassion, and charisma. Thus, we advance the following hypothesis:

*Hypothesis 2: Social media use will significantly influence voter perceptions of political candidates' image, including their honesty (Hypothesis 2a), intelligence (Hypothesis 2b), and leadership ability (Hypothesis 2c).*

## Method

Two telephone surveys were conducted by a university research institute prior to the 2012 Republican caucuses in Iowa. The target population was all active registered Republicans and Independents in the state of Iowa who were 18 years and older. A stratified systematic sampling design was employed to select the initial sample based on voter registration lists and a range of variables, including age, voter activity, geography, gender, and party affiliation. The list was obtained from the Iowa Secretary of State and contained both landline and cell phone numbers.

In the first survey, 1,256 interviews were completed by telephone from November 1 to 13, 2011, with 979 registered Republicans and 277 registered Independents. Excluding voters with no telephone numbers, the response rate for the first survey was estimated at 15.8% (AAPOR, 2011). The second survey took place from December 8 to 18, 2011. A total of 940 of the November respondents (740 registered Republicans, 200 registered Independents) were interviewed again, resulting in a response rate of 74.9% for the second wave (AAPOR, 2011). Interviews were completed by trained staff and were monitored at random intervals for quality control. Telephone numbers were called individually; automated dialers were not used. The data obtained from the second wave of the survey are used in this study.

## Independent Variables

Four sets of independent variables were used in the analysis. The first set taps basic demographic characteristics of the respondents. The sample was 50.9% female with a mean age of 61.89 years ( $SD = 16.11$ ), ranging from 19 to 97 years old. Education

( $M = 3.21$ ,  $SD = 1.03$ ) was measured by five categories: (1) less than high school, (2) high school graduate, (3) some college or technical training, (4) bachelor's degree, and (5) postgraduate work or degree; most respondents (33.5%) fell in the third group (some college). Income ( $M = 2.84$ ,  $SD = 1.32$ ) also included five categories (less than \$25,000, \$25,000 to \$50,000, \$50,000 to \$75,000, \$75,000 to \$100,000, and more than \$100,000); the majority of our sample (27.3%) fell under the second category. The sample overall reflects a relatively well-educated, middle-income, and older population.

To measure the respondents' political predispositions, we included three variables: ideological orientation, political talk, and attention to the campaign. Ideological orientation was gauged with a 7-point Likert-type scale, ranging from *extremely conservative* to *extremely liberal* ( $M = 2.51$ ,  $SD = 1.22$ ). Respondents were asked how frequently they engaged in political talk with family or friends, which was measured on a 4-point scale (*never*, *hardly ever*, *sometimes*, and *regularly*) ( $M = 2.4$ ,  $SD = 1.03$ ). We also asked how closely they followed the political campaign ( $M = 3.19$ ,  $SD = .76$ ), on a 4-point scale ranging from *not at all* to *very closely*.

The third group of variables included different types of traditional media. Respondents were asked how frequently (*never*, *hardly ever*, *sometimes*, and *regularly*) they received political news from the following sources: newspapers; radio; network television, such as ABC, CBS, or NBC; cable television, such as MSNBC, CNN, or FOX; local television newscasts; late-night comedy shows, such as *The Daily Show* or *The Colbert Report*; and campaign advertising.

The last set of variables gauged how frequently (*never*, *hardly ever*, *sometimes*, and *regularly*) respondents engaged in the following online activities: reading online news sites, such as the *New York Times* or CNN; visiting political party/candidate websites; reading political blogs; commenting/posting on blogs about politics; following a politician or political party on Twitter; following a politician or political party on Facebook; and following a politician or political party on YouTube.

## Dependent Variables

To test the impact on political participation, we used a measure of voters' likelihood to attend the 2012 Iowa caucuses—a 5-point Likert-type scale including *definitely will attend*, *probably will attend*, *are unsure*, *probably will not attend*, and *definitely will not attend* the caucus (reversed for analysis). The second set of dependent variables included three image evaluations for four of the Republican candidates—Mitt Romney, Rick Perry, Newt Gingrich, and Michele Bachmann. The three traits of interest tapped in the survey questions were honesty, intelligence, and leadership ability. Respondents were asked to think about a randomly selected candidate (e.g., Mitt Romney) and then report whether the phrase “he is honest” describes Romney *extremely well*, *quite well*, *not too well*, or *not well at all*. The same series of questions were asked for each of the other political candidates—Perry, Gingrich, and Bachmann—on honesty as well as the other two image characteristics, intelligence and leadership.

## Analytic Procedures

Our analyses employ hierarchical ordinary least squares (OLS) regression. A total of 12 regression models were estimated with variables entered based on their assumed causal order. The first block includes the set of demographic variables, followed by the political predisposition variables in the second, traditional media use in the third, and online media use in the last block.

## Results

The first hypothesis predicted that higher frequency of social media use will lead to increased likelihood of caucus attendance. The regression results for this hypothesis are reported in Table 1, Model 4. First, looking at the demographic block of variables, only income emerges as a significant predictor of attendance ( $\beta = .10$ ,  $SD = .05$ ,  $p < .05$ ), with those in the higher income group being more likely to attend. The second model adds the political predisposition variables and shows that all three are highly significant. Not surprisingly, those who self-identify as more conservative are more likely to attend the Republican caucus ( $\beta = -.21$ ,  $SD = .04$ ,  $p < .000$ ). Those who follow the campaign more closely ( $\beta = .53$ ,  $SD = .07$ ,  $p < .000$ ) and engage in political talk more frequently ( $\beta = .18$ ,  $SD = .05$ ,  $p < .01$ ) are also more likely to participate.

Of all traditional media sources included in Model 3, only radio news is significant ( $\beta = .18$ ,  $SD = .05$ ,  $p < .000$ ). The positive beta coefficient indicates that, controlling for all other factors, those who listen to radio news more frequently are also more likely to attend the caucus. The final model includes the online media variables. None of those are statistically significant at the .05 level, with the exception of visiting party/candidate websites ( $\beta = .16$ ,  $SD = .08$ ,  $p < .05$ ). Thus, the first hypothesis is not supported.

Looking at the overall explanatory power of the models, one can observe a modest  $R^2$  of .19 for the final model.  $F$ -change statistics for each of the four models indicate that each block of variables is significant as a whole, with the online media block explaining an additional 2% of the variation in caucus attendance. The individual variables that remain statistically significant in the final regression model are ideological orientation, interpersonal discussion about politics, attention to the campaign, listening to radio news, and visiting candidate/party websites (see Table 1).

The next set of hypotheses predicted that social media use would significantly influence voter perceptions of political candidates' image traits. The results show some variation between candidates and across candidate traits (see Tables 2, 3, and 4).

Starting with perceptions of honesty of Romney, we can see from Table 2 that none of the social media variables has a significant impact. Age has a significant effect ( $\beta = .01$ ,  $SD = .00$ ,  $p < .01$ ), with older people viewing Romney as more honest. Those who watch more cable news ( $\beta = .10$ ,  $SD = .03$ ,  $p < .000$ ) and read newspapers more frequently ( $\beta = .12$ ,  $SD = .03$ ,  $p < .000$ ) rate him as more honest; listening to radio news, however, has a negative effect ( $\beta = -.08$ ,  $SD = .03$ ,  $p < .01$ ).

The factors that matter most for Perry's perceptions of honesty are ideological orientation ( $\beta = -.11$ ,  $SD = .03$ ,  $p < .000$ ), with more conservative voters perceiving him



**Table 1.** Predicting Likelihood of Caucus Attendance (Ordinary Least Squares).

	Model 1	Model 2	Model 3	Model 4
Constant	2.63*** (.37)	1.40** (.42)	1.00* (.45)	.17 (.52)
Age	-.01 (.00)	-.01** (.00)	-.01* (.00)	-.01 (.00)
Gender	-.05 (.11)	-.00 (.11)	.03 (.11)	.07 (.11)
Education	.08 (.06)	.06 (.06)	.07 (.06)	.05 (.06)
Income	.10* (.05)	.06 (.04)	.04 (.04)	.06 (.04)
Ideological orientation		-.21*** (.04)	-.16** (.05)	-.14** (.05)
Interpersonal discussion		.18** (.05)	.14** (.05)	.12* (.05)
Attention to campaign		.53*** (.07)	.43*** (.08)	.38*** (.08)
Network news			-.09 (.06)	-.09 (.06)
Cable news			.07 (.05)	.06 (.05)
Local news			-.01 (.06)	-.00 (.06)
Late-night comedy			-.07 (.07)	-.08 (.07)
Newspapers			-.01 (.05)	-.02 (.05)
Radio news			.18*** (.05)	.18*** (.05)
Campaign advertising			.09 (.05)	.09 (.05)
Online news sites				.04 (.07)
Party websites				.16* (.08)
Reading blogs				-.03 (.08)
Commenting on blogs				.04 (.17)
Facebook				.07 (.13)
Twitter				.34 (.24)
YouTube				.03 (.14)
R <sup>2</sup>	.02	.15	.17	.19
R <sup>2</sup> change		.13***	.02**	.02*
N	787	787	787	787

The table reports results from hierarchical ordinary least squares regression analysis. Estimates are unstandardized regression coefficients with standard errors in parentheses.

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

as more honest. Listening to radio news ( $\beta = .06$ ,  $SD = .03$ ,  $p < .05$ ) and being exposed to campaign advertising ( $\beta = .13$ ,  $SD = .03$ ,  $p < .000$ ) are positively related to Perry's perceptions of honesty. The only significant social media predictor in Perry's evaluations of honesty is YouTube, and it has a negative effect ( $\beta = -.19$ ,  $SD = .08$ ,  $p < .05$ ).

In the case of Gingrich, reading political blogs is significantly related to voter evaluations of his honesty ( $\beta = .09$ ,  $SD = .04$ ,  $p < .05$ ), with those reading blogs more frequently perceiving him as more honest. From the traditional media sources, only cable news is a significant and positive predictor ( $\beta = .11$ ,  $SD = .03$ ,  $p < .000$ ). More conservative respondents are also significantly more likely to perceive Gingrich as honest ( $\beta = -.18$ ,  $SD = .03$ ,  $p < .000$ ).

Similarly, Bachmann is perceived as more honest by those who self-identify as more conservative ( $\beta = -.18$ ,  $SD = .03$ ,  $p < .000$ ). Following the campaign more closely



**Table 2.** Effects on Candidate Honesty Ratings (Ordinary Least Squares).

	Romney	Perry	Gingrich	Bachmann
Constant	1.66*** (.29)	3.14*** (.30)	3.37*** (.30)	2.86*** (.29)
Age	.01** (.00)	-.00 (.00)	-.00 (.00)	.00 (.00)
Gender	.02 (.06)	.02 (.06)	-.12 (.06)	.07 (.06)
Education	.05 (.03)	-.01 (.03)	-.02 (.03)	.02 (.03)
Income	.04 (.02)	-.01 (.03)	-.01 (.03)	-.01 (.02)
Ideological orientation	-.01 (.03)	-.11*** (.03)	-.18*** (.03)	-.18*** (.03)
Interpersonal discussion	.02 (.03)	-.03 (.03)	-.01 (.03)	.03 (.03)
Attention to campaign	-.01 (.04)	.01 (.05)	-.02 (.05)	.10* (.05)
Network news	.04 (.03)	-.00 (.03)	-.06 (.03)	-.06 (.03)
Cable news	.10*** (.03)	.03 (.03)	.11*** (.03)	.06* (.03)
Local news	-.00 (.03)	.01 (.03)	.01 (.03)	-.01 (.03)
Late-night comedy	.03 (.04)	-.05 (.04)	.02 (.04)	-.04 (.04)
Newspapers	.12*** (.03)	-.05 (.03)	-.04 (.03)	.01 (.03)
Radio news	-.08** (.03)	.06* (.03)	.01 (.03)	.05 (.03)
Campaign advertising	-.02 (.03)	.13*** (.03)	.05 (.03)	.07* (.03)
Online news sites	-.01 (.04)	-.03 (.04)	-.07 (.04)	-.05 (.04)
Party websites	-.01 (.04)	-.04 (.05)	.01 (.05)	.03 (.05)
Reading blogs	-.06 (.04)	.06 (.04)	.09* (.04)	.03 (.04)
Commenting on blogs	-.00 (.09)	.03 (.10)	-.08 (.10)	-.03 (.09)
Facebook	-.02 (.07)	.12 (.07)	.09 (.07)	.06 (.07)
Twitter	.10 (.12)	-.01 (.14)	-.11 (.13)	-.11 (.13)
YouTube	-.04 (.07)	-.19* (.08)	-.10 (.08)	-.09 (.08)
R <sup>2</sup>	.14	.15	.14	.17
N	787	787	787	787

The table reports unstandardized ordinary least squares regression coefficients with standard errors in parentheses. Only full regression models are reported.

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

( $\beta = .10$ ,  $SD = .05$ ,  $p < .05$ ), watching cable news ( $\beta = .06$ ,  $SD = .03$ ,  $p < .05$ ), and being exposed to campaign advertising ( $\beta = .07$ ,  $SD = .03$ ,  $p < .05$ ) also have a positive effect on her honesty ratings. None of the social media predictors is significant.

Hypothesis 2b examined how perceptions of intelligence are influenced by online information sources. In the case of Romney, being more conservative ( $\beta = -.08$ ,  $SD = .02$ ,  $p < .000$ ), paying closer attention to the campaign ( $\beta = .11$ ,  $SD = .04$ ,  $p < .01$ ), and watching cable news more frequently ( $\beta = .07$ ,  $SD = .02$ ,  $p < .01$ ) have a positive effect. None of the social media variables is significant, although the coefficient for Twitter is close to statistical significance at  $p = .06$ .

Perry is perceived as more intelligent by less liberal respondents ( $\beta = -.18$ ,  $SD = .03$ ,  $p < .000$ ) and those who follow the caucuses less closely ( $\beta = -.11$ ,  $SD = .04$ ,  $p < .05$ ). Political ads have a positive effect ( $\beta = .12$ ,  $SD = .03$ ,  $p < .000$ ), as does using Facebook ( $\beta = .16$ ,  $SD = .07$ ,  $p < .05$ ).

**Table 3.** Effects on Candidate Intelligence Ratings (Ordinary Least Squares).

	Romney	Perry	Gingrich	Bachmann
Constant	2.53*** (.23)	3.04*** (.28)	3.21*** (.26)	2.93*** (.27)
Age	.00 (.00)	.01* (.00)	-.00 (.00)	.00* (.00)
Gender	.03 (.05)	.04 (.06)	-.07 (.05)	.08 (.05)
Education	.05 (.03)	-.02 (.03)	.05 (.03)	-.04 (.03)
Income	.01 (.02)	-.03 (.02)	.01 (.02)	-.04 (.02)
Ideological orientation	-.08*** (.02)	-.18*** (.03)	-.17*** (.02)	-.18*** (.02)
Interpersonal discussion	-.02 (.02)	.03 (.03)	-.01 (.03)	.00 (.03)
Attention to campaign	.11*** (.04)	-.11* (.04)	.16*** (.04)	.06 (.04)
Network news	.01 (.03)	-.03 (.03)	-.09*** (.03)	-.04 (.03)
Cable news	.07*** (.02)	.03 (.03)	.10*** (.02)	.08*** (.03)
Local news	-.01 (.03)	-.00 (.03)	.01 (.03)	-.03 (.03)
Late-night comedy	-.01 (.03)	-.02 (.04)	-.01 (.03)	-.06 (.04)
Newspapers	.02 (.02)	-.03 (.03)	.02 (.03)	.02 (.03)
Radio news	-.00 (.02)	.03 (.03)	.02 (.02)	.03 (.03)
Campaign advertising	.01 (.02)	.12*** (.03)	.04 (.03)	.10*** (.03)
Online news sites	.01 (.03)	-.02 (.04)	-.04 (.03)	-.02 (.03)
Party websites	.00 (.04)	.02 (.04)	-.00 (.04)	.03 (.04)
Reading blogs	.00 (.03)	.01 (.04)	.03 (.04)	-.02 (.04)
Commenting on blogs	.05 (.07)	-.01 (.09)	.03 (.08)	.05 (.09)
Facebook	.05 (.06)	.16* (.07)	.11 (.06)	.06 (.06)
Twitter	-.20 (.10)	-.19 (.13)	-.17 (.12)	-.10 (.12)
YouTube	-.03 (.06)	-.09 (.07)	-.14* (.07)	-.13 (.07)
R <sup>2</sup>	.10	.15	.21	.21
N	787	787	787	787

The table reports unstandardized ordinary least squares regression coefficients with standard errors in parentheses. Only full regression models are reported.

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

For Gingrich, conservatism ( $\beta = -.17$ ,  $SD = .02$ ,  $p < .000$ ), attention to the campaign ( $\beta = .16$ ,  $SD = .04$ ,  $p < .000$ ), and cable news ( $\beta = .10$ ,  $SD = .02$ ,  $p < .000$ ) are positive predictors of perceptions of candidate intelligence, while network news use ( $\beta = -.09$ ,  $SD = .03$ ,  $p < .01$ ) and YouTube ( $\beta = -.14$ ,  $SD = .07$ ,  $p < .05$ ) have a negative effect.

Bachmann's intelligence ratings are positively affected by level of conservatism ( $\beta = -.18$ ,  $SD = .02$ ,  $p < .000$ ), cable news use ( $\beta = .08$ ,  $SD = .03$ ,  $p < .01$ ), and exposure to political ads ( $\beta = .10$ ,  $SD = .03$ ,  $p < .01$ ). Following the candidate on YouTube just barely misses statistical significance ( $\beta = -.13$ ,  $SD = .07$ ,  $p = .06$ ).

The final hypothesis focused on perceptions of leadership ability. Beginning with Romney, the factors that emerge as significant predictors are age ( $\beta = .00$ ,  $SD = .00$ ,  $p < .05$ ), education ( $\beta = .07$ ,  $SD = .03$ ,  $p = .06$ ), ideological orientation ( $\beta = -.13$ ,  $SD = .07$ ,  $p = .06$ ), watching cable news ( $\beta = -.13$ ,  $SD = .07$ ,  $p < .05$ ), and listening to the radio ( $\beta = -.06$ ,  $SD = .03$ ,  $p < .05$ ). None of the online information sources is significant.

**Table 4.** Effects on Candidate Leadership Ratings (Ordinary Least Squares).

	Romney	Perry	Gingrich	Bachmann
Constant	2.14*** (.28)	2.85*** (.30)	3.01*** (.30)	2.78*** (.29)
Age	0.00* (.00)	.00 (.00)	.00 (.00)	.00 (.00)
Gender	.09 (.06)	.03 (.06)	-.05 (.06)	.08 (.06)
Education	.07* (.03)	-.02 (.03)	-.01 (.03)	-.06* (.03)
Income	.02 (.02)	-.00 (.03)	.03 (.03)	-.06* (.02)
Ideological orientation	-.08*** (.03)	-.18*** (.03)	-.20*** (.03)	-.19*** (.03)
Interpersonal discussion	-.03 (.03)	.02 (.03)	.02 (.03)	.03 (.03)
Attention to campaign	.03 (.04)	-.09 (.05)	.03 (.05)	.06 (.05)
Network news	.01 (.03)	.00 (.03)	-.08* (.03)	-.08* (.03)
Cable news	.07** (.03)	.07* (.03)	.10*** (.03)	.04 (.03)
Local news	.03 (.03)	-.01 (.04)	.03 (.03)	-.05 (.03)
Late-night comedy	-.02 (.04)	-.03 (.04)	.01 (.04)	.03 (.04)
Newspapers	.00 (.03)	-.02 (.03)	.00 (.03)	.01 (.03)
Radio news	-.06* (.03)	.07* (.03)	.03 (.03)	.06* (.03)
Campaign advertising	.04 (.03)	.08* (.03)	.03 (.03)	.08* (.03)
Online news sites	.01 (.03)	-.08* (.04)	-.06 (.04)	-.05 (.04)
Party websites	-.05 (.04)	-.01 (.05)	-.02 (.05)	.09 (.05)
Reading blogs	-.08 (.04)	-.12** (.05)	.07 (.04)	-.01 (.04)
Commenting on blogs	.00 (.09)	-.09 (.10)	.07 (.10)	-.16 (.09)
Facebook	.10 (.07)	.18* (.07)	.07 (.07)	.12 (.07)
Twitter	.01 (.12)	.05 (.14)	-.09 (.13)	.23 (.13)
YouTube	-.08 (.07)	-.13 (.08)	-.06 (.08)	-.15* (.08)
R <sup>2</sup>	.09	.13	.16	.19
N	787	787	787	787

The table reports unstandardized ordinary least squares regression coefficients with standard errors in parentheses. Only full regression models are reported.

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

For Perry, following the candidate on Facebook has a positive effect ( $\beta = .08$ ,  $SD = .07$ ,  $p < .05$ ), as does reading political blogs ( $\beta = -.12$ ,  $SD = .05$ ,  $p < .01$ ). Accessing online news sites ( $\beta = -.08$ ,  $SD = .04$ ,  $p < .05$ ), however, is negatively related to Perry's leadership rating. Among the traditional media sources, cable news ( $\beta = .07$ ,  $SD = .03$ ,  $p < .05$ ), radio news ( $\beta = .07$ ,  $SD = .03$ ,  $p < .05$ ), and political ads ( $\beta = .08$ ,  $SD = .03$ ,  $p < .05$ ) are positive predictors. Ideological orientation ( $\beta = -.18$ ,  $SD = .03$ ,  $p < .000$ ) is also highly significant.

Gingrich's leadership rating is significantly affected by voters' ideological orientation ( $\beta = -.20$ ,  $SD = .03$ ,  $p < .000$ ). Network news use ( $\beta = -.08$ ,  $SD = .03$ ,  $p < .05$ ) has a negative effect, while cable news use ( $\beta = .10$ ,  $SD = .03$ ,  $p < .000$ ) has a positive effect. Those who visit online news sites more frequently are likely to give Gingrich a lower leadership rating, but that effect is not significant ( $\beta = -.06$ ,  $SD = .04$ ,  $p = .09$ ).

Bachmann's leadership score is significantly affected by education level ( $\beta = -.06$ ,  $SD = .03$ ,  $p < .05$ ), income ( $\beta = .06$ ,  $SD = .02$ ,  $p < .05$ ), and ideological orientation

( $\beta = -.19$ ,  $SD = .03$ ,  $p < .000$ ) but not by gender. Frequency of use of network news ( $\beta = -.08$ ,  $SD = .03$ ,  $p < .05$ ) has a negative effect, whereas radio news use ( $\beta = .06$ ,  $SD = .03$ ,  $p < .05$ ) has a positive effect, as does political advertising ( $\beta = .08$ ,  $SD = .03$ ,  $p < .05$ ). YouTube ( $\beta = -.15$ ,  $SD = .08$ ,  $p < .05$ ) is the only significant predictor from the online information sources and, as seen earlier for other traits, has a negative effect on candidate image ratings.

## Discussion

This study set out to investigate the role of social media in the 2012 Iowa caucuses. First, it is noteworthy that few people relied on social media in our sample, which could be related to the relatively older mean age of the survey respondents. Similar to the findings of a previous study of Iowa voters, this older population has not yet embraced online tools (Groshek & Dimitrova, 2011). In addition, the results of this study compared with Redlawsk et al.'s (2010) examination of the 2008 Iowa caucuses seem to indicate that Democratic voters in the state may rely more on online sources of political information than Republican voters. Nevertheless, the relatively low use of social media suggests that researchers should be cautious not to overestimate their ability to significantly influence civic engagement, at least at the current stage. As the popularity of online tools for political campaigning grows, however, their impact may increase over time. With the exception of radio news, traditional media also exerted little influence on citizen participation in the caucuses.

The results presented above lead us to conclude that, at least for the sample of Iowans surveyed in this study, political predispositions are the most significant factors influencing voter participation. Ideological orientation, engaging in political discussion, and attention paid to the caucuses explained most of the variation in likelihood of attendance. Factors such as frequency of use of traditional media, political advertising, and online media were less important. This is consistent with political science research showing that demographics and exogenous factors such as party affiliation, political efficacy, and ideology trump other predictors of political participation.

Given that, it is important to make another disclaimer about the sample used here—our survey respondents were, on average, well educated and closely followed the campaign in Iowa. Media effects for both traditional and online media may be stronger for less educated citizens and those who pay less attention to politics. Also, previous research has documented that more than 50% of Iowans—compared with 21% of all Americans—meet presidential candidates in person (Redlawsk et al., 2010), which likely lessens their reliance on media for political information and increases the importance of interpersonal discussion. Certainly, the significance of political talk as a predictor of participation in our analyses is consistent with this proposition.

Although only few media use variables affected likelihood of caucus attendance, the media seemed to matter more for voters' evaluations of candidate image. This pattern of influence, however, is quite complex, and varied by candidate and by trait. Facebook had a positive effect on intelligence ratings and perceptions of leadership

ability in several instances, although it had no effect on honesty. Honesty ratings, however, were positively affected by frequency of reading political blogs, at least for one candidate. Radio news, cable television, and campaign advertising also played a significant role in image perceptions of the Republican caucus contenders.

One consistent finding that seems to emerge from this study is the negative impact of YouTube on candidate image evaluations, which corroborates previous research on the effects of online political humor (Baumgartner, 2007). In the current state of political campaigning, it is not uncommon for highly negative YouTube videos to go “viral” and begin to erode a politician’s image—a trend that is likely to continue in future elections.

Comparing social media effects across candidates, it seems that Perry’s image ratings were relatively more affected than those of the other candidates. In particular, following the candidate on Facebook had a positive effect on evaluations of his intelligence as well as of his leadership ability. In future studies, it may be interesting to examine whether Perry had a more intensive online presence on Facebook prior to the Iowa caucuses compared with the other Republican contenders.

Although both traditional and online media use affected candidate image evaluations, the most consistent predictor across the multivariate analyses was ideological orientation. In the current polarized political environment, this trend may seem hardly surprising (Abramowitz & Saunders, 2006). Still, it underscores the importance of ideology, even for the relatively homogeneous group of Republican and Independent Iowa voters. Whether one perceived Romney or Gingrich, for instance, as more or less honest was highly dependent on how conservative the respondent was, even when factors such as income and education were taken into consideration.

To sum up, this study found that social media use does not significantly affect caucus attendance, at least for the sample of Iowans surveyed here. Such online media did make a difference, however, when looking at evaluations of candidate image. In particular, the negative effects of YouTube stand out and raise a cautionary flag to contemporary politicians who may face unexpected obstacles if gaffe videos or attack ads go “viral.” This finding also highlights the potential of ordinary citizens to influence political outcomes—especially if they are able to create a popular political message in the online environment.

However, one needs to keep in mind that the findings of this study cannot be generalized to the U.S. voting population as they reflect the nature of Iowa’s demographics. Thus, different patterns of influence may emerge nationwide. The potential power of social media for younger generations, therefore, should not be discounted, especially in light of recent findings applicable to younger populations and the increasing importance of the Internet as a primary source of political information among the general public in the United States.

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## References

- AAPOR. (2011). *Standard definitions: Final dispositions of case codes and outcome rates for surveys*. American Association for Public Opinion Research. Retrieved from <http://wapor.unl.edu/wp-content/uploads/2011/02/StandardDefinitions2011.pdf>
- Abramowitz, A. I., & Saunders, K. L. (2006). Exploring the bases of partisanship in the American electorate: Social identity vs. ideology. *Political Research Quarterly*, 59(2), 175-187.
- Bakker, T. P., & de Vreese, C. H. (2011). Good news for the future? Young people, Internet use and political participation. *Communication Research*, 38(4), 451-470.
- Baumgartner, J., & Morris, J. S. (2006). The *Daily Show* effect: Candidate evaluations, efficacy, and American youth. *American Politics Research*, 34(3), 341-367.
- Baumgartner, J. C. (2007). Youth, online political humor, and the JibJab effect. *Social Science Computer Review*, 25, 319-338.
- Benoit, W. L., & McHale, J. P. (2004). Presidential candidates' personal qualities: Computer content analysis. In K. L. Hacker (Ed.), *Presidential candidate images: Issues of theory and measurement* (pp. 49-63). Westport, CT: Praeger.
- Benoit, W. L., McKinney, M. S., & Stephenson, M. T. (2002). Effects of watching campaign 2000 presidential primary debates. *Journal of Communication*, 52, 316-331.
- Boulianne, S. (2009). Does Internet use affect engagement? A meta-analysis of research. *Political Communication*, 26(2), 193-211.
- Cappella, J. N., & Jamieson, K. H. (1997). *Spiral of cynicism: The press and the public good*. New York: Oxford University Press.
- Czernich, N. (2012). *Broadband Internet and political participation: Evidence for Germany*. Retrieved November 15, 2012, from <http://ssrn.com/abstract=1992693> or <http://dx.doi.org/10.1111/j.1467-6435.2011.00526.x>
- Dalton, R. J. (2002). *Citizen politics: Public opinion and political parties in advanced industrial democracies*. New York: Chatham House.
- de Vreese, C. H., & Boomgaarden, H. (2006). News, political knowledge and participation: The differential effects of news media exposure on political knowledge and participation. *Acta Politica*, 41, 317-341.
- Dimitrova, D. V., Shehata, A., Strömbäck, J., & Nord, L. W. (2011). The effects of digital media on political knowledge and participation in election campaigns: Evidence from panel data. *Communication Research*. doi:10.1177/0093650211426004.
- Gentzkow, M. A. (2006). Television and voter turnout. *Quarterly Journal of Economics*, 121(3), 931-972.
- Groshek, J., & Dimitrova, D. V. (2011). A cross-section of voter learning, campaign interest and intention to vote in the 2008 American election: Did Web 2.0 matter? *Communication Studies Journal*, 9, 355-375.
- Hendricks, J. A., & Denton, R. E. (2010). *Communicator-in-chief: How Barack Obama used new media technology to win the White House*. Lanham, MD: Lexington.
- Hoffstetter, C. R., Zukin, C., & Buss, T. F. (1978). Political imagery and information in an age of television. *Journalism Quarterly*, 562-569.
- Johnson, T. J., Braima, M. A. M., & Sothirajah, J. (1999). Doing the traditional media sidestep: Comparing the effects of the Internet and other nontraditional media with traditional media

- in the 1996 presidential campaign. *Journalism & Mass Communication Quarterly*, 76(1), 99-123.
- Kaid, L. L. (2004). Political advertising. In L. L. Kaid (Ed.), *Handbook of political communication* (pp. 155-202). Mahwah, NJ: Lawrence Erlbaum.
- Kaid, L. L., & Holtz-Bacha, C. (Eds.). (2008). *Encyclopedia of political communication*. London: Sage.
- Kenski, K., & Stroud, N. J. (2006). Connections between Internet use and political efficacy, knowledge, and participation. *Journal of Broadcasting & Electronic Media*, 50(2), 173-192.
- McLeod, J. M., Glynn, C. J., & McDonald, D. G. (1983). Issues and images: the influence of media reliance in voting decisions. *Communication Research*, 10, 37-58.
- Mossberger, K., Tolbert, C. J., & McNeal, R. S. (2008). *Digital citizenship: The Internet, society, and participation*. Cambridge: MIT Press.
- Moy, P., Xenos, M. A., & Hess, V. K. (2006). Priming effects of late-night comedy. *International Journal of Public Opinion Research*, 18(2), 198-210.
- Norris, P. (2000). *A virtuous circle: Political communications in postindustrial societies*. Cambridge, UK: Cambridge University Press.
- Pew Research Center for the People and the Press. (2012, February). *Cable leads the pack as campaign news source*. Retrieved December 31, 2012, from <http://www.peoplepress.org/files/legacy-pdf/2012%20Communicating%20Release.pdf>
- Pfau, M., & Eveland, W. P. (1996). Influence of traditional and non-traditional news media in the 1992 election campaign. *Western Journal of Communication*, 60(3), 214-232.
- Pinkleton, B. E., Austin, E. W., & Fortman, K. K. J. (1998). Relationship of media use and political disaffection to political efficacy and voting behavior. *Journal of Broadcasting & Electronic Media*, 42(1), 34-49.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Quintelier, E. & Vissers, S. (2008). The effect of Internet use on political participation: An analysis of survey results for 16-year-olds in Belgium. *Social Science Computer Review*, 26(4), 411-427.
- Redlawsk, D. P., Tolbert, C. J., & Donovan, T. (2010). *Why Iowa? How caucuses and sequential elections improve the presidential nominating process*. Chicago: University of Chicago Press.
- Shah, D. V., Kwak, N., & Holbert, R. L. (2001). "Connecting" and "disconnecting" with civic life: Patterns of Internet use and the production of social capital. *Political Communication*, 18(2), 141-162.
- Tolbert, C. J., & McNeal, R. S. (2003). Unraveling the effects of the Internet on political participation? *Political Research Quarterly*, 56(2), 175-185.
- Vitak, J., Zube, P., Smock, A., Carr, C. T., Ellison, N., & Lampe, C. (2011). It's complicated: Facebook users' political participation in the 2008 election. *Cyberpsychology, Behavior, and Social Networking*, 14(3), 107-114.
- Winebrenner, H., & Goldford, D. J. (2010). *The Iowa precinct caucuses: The making of a media event*. Iowa City: University of Iowa Press.

## Author Biographies

**Daniela V. Dimitrova**, PhD, is an Associate Professor and Director of Graduate Education in the Greenlee School of Journalism and Communication at Iowa State University. Her research interests focus on political communication, new media technologies, and the news framing of



political events. Dimitrova's scholarly record includes more than 40 peer-reviewed publications in journals such as *Communication Research*, *Journalism & Mass Communication Quarterly*, *International Communication Gazette*, *New Media & Society*, *Press/ Politics*, and *the Journal of Computer-Mediated Communication*. She is a member of AEJMC, the largest U.S. organization for journalism educators, and most recently served as Head of its Communication Technology division.

**Dianne Bystrom** is the director of the Carrie Chapman Catt Center for Women and Politics at Iowa State University. A frequent commentator about women's and political issues for national and international media, she has contributed to 18 books on gender, politics and communication. Her research focuses on the styles and strategies used by female and male political candidates in their campaign communication and their coverage by the media.