



SOCIAL MEDIA AND POLITICS

A New Way to Participate in the Political Process

Glenn W. Richardson Jr., Editor

Social Media and Politics

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**A New Way to Participate
in the Political Process**

Volume I

Candidates, Campaigns, and Political Power

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Introduction

The rise of social media has fundamentally altered political communication and the research programs of scholars who study it. This set offers readers a window into a wide range of academic studies of social media and politics that reflect this exciting moment.

Volume 1 is focused on candidates' and campaigns' use of social media and how that affects voters. The chapters in this volume address the use of social media in the United States and elsewhere, with a particular emphasis on U.S. campaigns for the House, Senate, and presidency. The contributing scholars focus on questions such as how information flows differ across social media and traditional media, how information flows to individuals, gender differences in Twitter-style among candidates, the role of social media in political polarization, and what campaigns become as social media becomes the infrastructure of political communication.

Volume 2 extends beyond the realm of strictly electoral politics to explore how social movements and others have engaged social media. Contributors explore how groups from Greenpeace to the Tea Party as well as more diverse social movements such as feminism and resistance journalism have flourished in an age of social media. Among the key issues raised are important questions of power, authenticity, and identity.

Almost every chapter in the set was strengthened by a double-blind peer review process. Almost all of the contributors agreed to participate as reviewers, and their dedication to this task is evident in the quality of the chapters included. Additionally, a handful of additional reviewers were involved, with both Andi McClanahan and Tom Shevory serving as editorial advisers to the set.

The editor would also like to thank Alicia Merritt, Anthony Chiffolo, Barbara Patterson, Steve Catalano, and the folks at ABC-CLIO for the patient and generous assistance with this project.

Chapter I

Trending Politics: Comparing Political Information Flows in Social Media and Traditional Media

Leticia Bode

INTRODUCTION

There has been a great deal of concern expressed with regard to social media since its advent roughly a decade ago. Much of this concern suggested that social media would be a place without substance, continuing the trend of cable television and online information more broadly.¹ Political information in particular was likely to be in short supply, allowing people to “opt out” of politics in yet another medium.

Preliminary evidence suggests this is not the case—users of social media report that they do tend to see politics show up in their feeds at least some of the time.² Because users are motivated by social—and generally not political³—reasons to use social media, the nature of exposure to politics within social media is likely primarily (though not entirely) incidental rather than purposive. The extent to which political information surfaces in social media as compared to traditional media, though, is somewhat less clear. This chapter, therefore, seeks to establish one

measure of the frequency and timing of political information in social media as compared to more traditional news media.

To do so, I use mixed methods to consider information flows in social media and traditional media and explore whether or not the two streams of information differ at all, and if so, in what ways. To the extent there is significant overlap between information obtained purposively (operationalized as top searches in Google News) and that obtained incidentally (operationalized as top trends on Twitter), there may be less cause for concern than some scholars might suggest. Additional questions are also considered to better understand the nuance of what type of political information occurs in different contexts.

This chapter is a contribution to understanding the process of incidental exposure to political information via social media. By establishing what stream of information purposive information seeking yields and comparing those data with a second stream of information obtained via incidental exposure on social media, we can begin to understand the extent of exposure to incidental political content in that outlet.

LITERATURE REVIEW

We know that most users of social media are exposed to politics at least occasionally.⁴ This exposure matters for important democratic outcomes, including social capital formation,⁵ political knowledge gains,⁶ and likelihood of political participation.⁷ Still, while the implications of exposure to politics on social media are clearly important, our understanding of the descriptive nature of the political information to which people are exposed is somewhat limited.

NEGATIVE IMPACT ON DEMOCRACY?

Chief among concerns about social media and politics is how Internet use might negatively impact democracy in America, in that the customizability of the Internet will allow people to insulate themselves from information to which they would otherwise be exposed, thus jeopardizing the ability of citizens to engage with one another in a meaningful way. Cass Sunstein describes a world in which the information to which citizens are exposed is entirely of their choosing, a situation that he calls "The Daily Me."⁸ Rather than gaining information from a shared news source such as a newspaper or television broadcast, The Daily Me would allow citizens to choose what information they received each day, thus insulating them from all other information.

According to Sunstein, this hypothetical but approaching world of "perfect filtering" would harm democracy. As he puts it, "A well-functioning system of free expression must meet two distinctive

requirements. First, people should be exposed to materials that they would not have chosen in advance. . . . Second, many or most citizens should have a range of common experiences.”⁹ The former requirement ensures exposure to the other—opinions and ideas contrary to one’s own—necessary to classic ideas about democratic deliberation.¹⁰ The modern media environment potentially removes this exposure to different ideas by offering consumers their own niches in which to cocoon themselves.

The latter requirement allows people who are very different from one another to have a shared pool of information. This has been a classic argument for the democratic benefit of media¹¹ in general, creating a social binding among disparate citizens, which allows them to engage with one another more effectively and see things from a common perspective. By allowing such efficient filtering, the modern media environment might remove any sense of a shared experience among citizens. Because we do not all watch the evening news together anymore but rather can choose between the evening news and cable news and sitcoms and bad reality shows, we may find it more difficult to talk to one another on a shared plane of experience, again undermining the shared consideration of issues to which the framers aspired for their democratic society.¹²

Marcus Prior continues this line of argument in his work on media choice. Prior focuses on the media choice environment presented by cable television and concludes that this environment allows users to customize their media exposure to a much greater extent than ever before. This allows news junkies to watch news 24 hours a day and those totally uninterested in news and politics to opt out of that portion of the media almost entirely. As Prior puts it, “Choosing one’s preferred content was much less efficient in 1970 than it is today. Different media environments therefore offer different opportunities to obtain free information as a by-product. As it becomes easier to find the ideal content at the ideal time, the chances that viewers encounter political information as an unintended consequence . . . dwindle.”¹³

Prior refers to this phenomenon as “Conditional Political Learning.”¹⁴ In order to access, recall, learn from, and respond to political information, two things are required. A citizen needs both motivation—the desire to gain and learn from information—and ability—the capacity or set of skills that actually facilitates such learning. Both of these requirements are affected by changes in the media environment. Even if there is more political content available (greater ability), people are able to ignore it more than they were able to in previous media environments (greater exercise of motivation).

More broadly, these ideas also tie into work on selective exposure and hearing the other side,¹⁵ in that social media may represent an opportunity to cocoon oneself against disagreeable information. However,

research suggests that selective exposure within social media is minimal.¹⁶ This study is done at the aggregate level, so its ability to speak to the extent to which any individual sees any particular type of content is limited. For additional analysis regarding this issue, see Chapter 10, *Who Sees What? Individual Exposure to Political Information via Social Media*, in this volume.

POSITIVE IMPACT ON DEMOCRACY?

However, it is not entirely clear that it is as easy to opt out of political information online as Sunstein and Prior would make us believe. Similar concerns surfaced following the dawn of television, and research at that time determined that more learning occurred as a result of exposure to television than was originally predicted. Scholars refer to such learning as “passive learning,” as a result of incidental exposure to any information, but including political information.

Previous work on incidental learning while watching television suggests that incidental learning is not reserved to any particular time or medium. A series of work in the 1960s and 1970s acknowledged the potential for incidental learning to take place while people watched television.¹⁷ Authors Krugman and Hartley determined that passive learning—learning without motivation—is “typically effortless, responsive to animated stimuli, amenable to artificial aid to relaxation, and characterized by an absence of resistance to what is learned.”¹⁸ The Internet, and social media in particular, much like television, provides “animated stimuli” and a relaxing environment, in which political information is interspersed with updates about pets and babies. It is quite possible that users might similarly respond to social media and the political information contained therein, with passive learning styles similar to that of early television use. This may result in what Krugman refers to as “learning without involvement” or “un-anchored learning.”¹⁹ Notable is the “absence of resistance to what is learned”—that is, users are actually less likely to put up barriers to absorbing the information to which they are exposed in these environments. This concept of learning without involvement has been extended in various ways, including to political advertising²⁰ and so-called soft news content.²¹

In the online world in general, there is mixed evidence as to whether incidental exposure to information occurs and in what way. On the one hand, selective exposure is clearly facilitated by the nature of the Internet. Studies have consistently found that users customize their online experience in relation to their personal uses and gratifications and may even do so to avoid particular types of information.²²

On the other hand, there is growing evidence that people may encounter information they do not explicitly seek online, just as they do from watching television, and that learning may result from such exposure.

People frequently encounter news and current events on search engines and web portals when they are not specifically looking for such information, leading to greater knowledge of current events.²³

In addition, we still have only limited knowledge of incidental exposure to political information online. After the election in 2004, Pew Research Center found that quite a number of people self-reported such exposure. Fifty-one percent of Internet users and 59 percent of online political news consumers reported encountering news or information about the 2004 elections when going online for other purposes.²⁴ Despite the fact that more than half of Internet users are aware of their exposure to political information online when not seeking it out, we have little idea of what such exposure looks like, and where and how it takes place.

If users are incidentally exposed to political information via social media, it suggests that the negative implications of the Internet put forward by Prior, Sunstein, and others are somewhat unfounded. Moreover, it becomes important to understand whether the two information flows—that of purposive information seeking and that of incidental exposure to information—represent similar content or disparate content. It is possible that incidental exposure to information simply offers an alternative means of gaining similar information as that of purposive information seeking or news gathering. Alternatively, the content of information gained via incidental exposure may be substantively different than that obtained in traditional ways. If the two information flows are sufficiently different in content, the concerns of Prior and Sunstein may still be valid. Thus, this study is able to speak to these concerns even without measuring individual exposure to content.

EXPECTATIONS

While the primary research question of this chapter is to determine if the political information being obtained through purposive search and incidental exposure is similar in volume and content (RQ1), the data give us the opportunity to explore secondary research questions as well.

Because social media are primarily devoted to people expressing themselves and sharing their personal lives,²⁵ we are likely to see fewer explicit references to political news than we might see in purposive information-seeking behaviors (H1).

Similarly, we may see content appear more quickly on social media than it does via purposive searches. Twitter and Facebook give users the ability to post in real time, instantaneously sharing information with their network. Searching, on the other hand, may reflect a user seeking to learn more. Such searches, therefore, are likely to be somewhat time-delayed. Thus, we would expect content to appear on social media before it appears in information searches (H2).

Along the same lines, we might expect social media users to have a relatively short attention span. If social media is about sharing information as it happens, the attention given to a subject after the fact should be somewhat reduced, compared to the more traditional news. Thus, we might expect an event to be attended to for a shorter period of time on social media, when compared with more traditional news outlets (H3).

Finally, attention should vary depending on the salience of an issue. This means that in locations where an issue is particularly important, we should see greater attention to that issue in both Twitter and Google News (H4).

DATA

For the purposes of this study, purposive information seeking is represented by content from Google News searches. While there are certainly other sources of information available online, Google is the most used website in the world and thus the largest source of seeking information online by far. Per day, 620 million people visit Google's home page, resulting in 7.2 billion page views each day.²⁶ Google truly dominates the search market, serving 65.2 percent of all search traffic online.²⁷ While Google does not release usage data relating specifically to Google News, it is widely acknowledged that Google News is one of the most used online news sites available, with a reported 100 million unique visitors per month.²⁸ Again, this does not represent the only means of intentionally acquiring political information online, but it is a strong case of purposive information seeking and one unlikely to show any particular bias. The online nature of Google News is actually a benefit here—it allows for more of an apples to apples comparison because both sources are online (thus preventing any bias that would be associated with an online/offline comparison, as the people who partake of offline media look different than those who use online media). However, Google News is still considered a traditional media source because it aggregates primarily traditional media sources—mostly the online outlets of print and television news—and other research has similarly used Google News as a proxy for traditional media.²⁹

Incidental exposure to information, on the other hand, is represented in this chapter by content produced on both Twitter and Facebook. While only 3 percent of Internet users report tweeting about the news, 19 percent of U.S. Internet users use Twitter in general.³⁰ This reflects the fact that most Twitter users are receiving more information than they are sending out. This makes Twitter ripe for the transmission of information from the politically engaged to the politically unengaged. Facebook, on the other hand, has 500 million active users, 60 million of which are in the United States (71% of Americans who are online have a Facebook profile).

Collectively these users spend 700 billion minutes on the site each month, suggesting there is enough engagement going on in this realm that some of it is likely to be political in nature. This study is merely a first step in understanding the amount, nature, and timing of political information in online social media.

The data used in this study come from three sources. The first set of data comes from a Google tool called Google Insights for Search (Google.com/Insights/Search). This tool offers the top search trends by Google application (searches on the web, on Google News, searches for images, and searches for products) over a distinct period of time. The data for this study were produced by examining the top 10 Google News searches in the United States over the last 7 days and the last 30 days³¹ on a daily basis. For more detailed analysis, similar searches were performed daily for each of the five largest cities in the United States (New York, Los Angeles, Chicago, Houston, and Philadelphia, though only the final two are reported here).

The Twitter data most comparable to the national Google News searches come from a website that tracks Twitter trends over time, called "WhatTheTrend?"³² WhatTheTrend? provides the top 20 Twitter trends over the last 7 days and the last 30 days, which were collected by the author on a daily basis.

For the purposes of this chapter, each of these sources is combined to create a unique data set that allows for exploration into the various information flows online for a period of about three months during the summer of 2010. Trend data allow us to see the types of content that are likely to permeate even the most casual of social media users. When a word or phrase breaks the top 10 trends, it is a signal that it has reached a critical mass of attention. Similarly, millions of Google searches are done every day, but those that reach the top levels are likely those generating the most attention by users. For these reasons, trend data are a worthwhile way of measuring attention to content across these media. Trend data are not the only way to measure types of content though, and other studies are using other means of doing so, including keyword searches.³³ One limitation of trend data is its inability to reflect true proportions of content rather than relative attention to content. Thus, we cannot conclude how much content actually exists for any given topic that trends. This is a difficult thing to measure, and triangulation of multiple data approaches is the best way to ensure that conclusions are not based only on data collection practices.

Additional data are sourced from Facebook. These data feature the words *Obama*, *Biden*, *McCain*, and *Palin* (each of the candidates for president and vice president in the 2008 election), reflecting the daily postings in status updates or wall posts of any of these four words, over the period of June 2008 to December 2009. These data were obtained by a Facebook employee running queries of their data for each of the words

in status updates and wall posts (which include posting links). I then paired these data with Google Insights for Search trend data for each of the words. These data are again obtained from Google Insights for Search. Rather than pull the overall top trends data, however, I did a keyword search for each aforementioned word and then used the trend data specific to that word.

EXAMINING THE UNIVERSE OF POLITICAL INFORMATION

The first step in determining the flow of political information on both Google News and Twitter is to determine what is, in fact, political. I define political information as any data, fact, idea, or statement that deals in any way with political actors, political institutions, or political processes. This could include anything from public opinion poll results to what President Obama wore on vacation. For the purposes of this study it tends to include one or two word mentions of political candidates and officeholders (Obama, Kagan, McChrystal, etc.) and political events (CPAC [Conservative Political Action Conference], Primary, Nuclear Security Summit).

I hand-coded each of the 830 data points (the top 10 daily hits in the United States for 83 days) for both Twitter and Google News for political content. The overall prevalence of political information is quite low for both sources: over the 83-day period, there were 48 instances of political information on Google News (equaling approximately 6% of overall content) and 32 on Twitter (equaling approximately 4% of overall content; see Table 1.1). Although this difference is significant, it suggests that some political information is being transmitted via Twitter (confirming H1 and answering RQ1 in the affirmative). Moreover, the substantive amount of political information being shared on Twitter and the amount of political information being searched for via Google News is not drastically different.

Table 1.1
Comparison of Political Content on Google News and Twitter

	Political Content
Google News	48 (0.06)
Twitter	32 (0.04)
t-test statistic	-4.04*

* $p < 0.01$

Note: Numbers in each cell are counts followed parenthetically by percentage of content which was political.

EXAMINING THE LIFE OF A TREND: A CASE STUDY

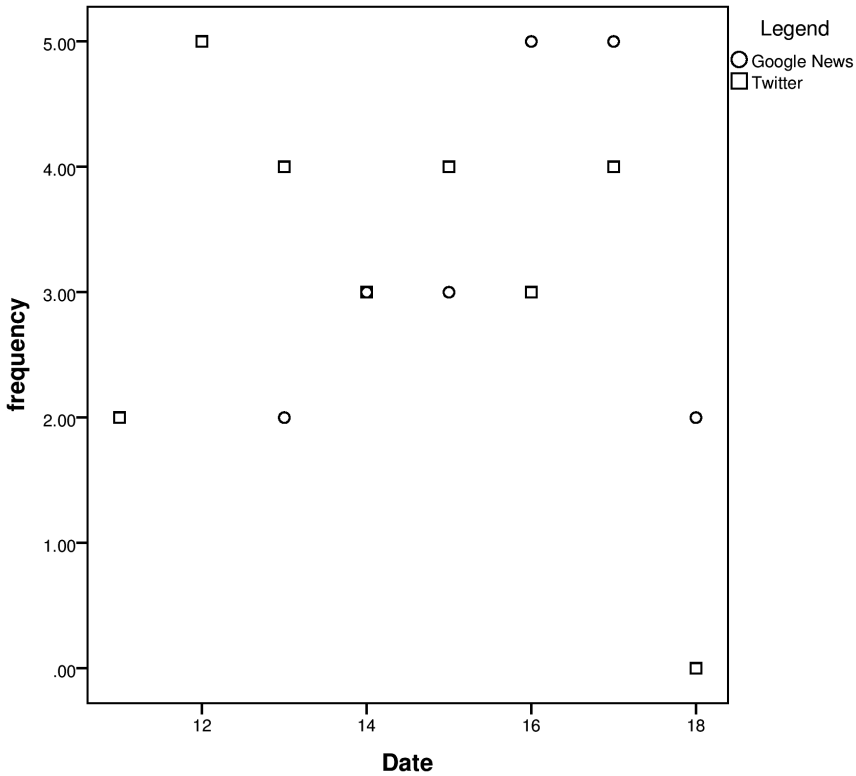
The aggregate analysis provides a wide angle look at the scope of political information on Google News and Twitter, but a more focused understanding of that content is important as well. With that in mind, I chose two case studies in which I consider a single trend that occurred in Google News searches as well as on Twitter, to see whether and how the trend would play out differently between the two online arenas (testing H2 and H3). The first sampled trend is that of the nomination of Elena Kagan to the Supreme Court of the United States, which occurred on May 10, 2010. The nomination clearly fits under my definition of political information—in this case an event directly involving the goings-on of the federal government.

Kagan was referred to in two ways in the two online venues I consider—as “Kagan” and with her full name, “Elena Kagan.” Mentions of Kagan trended in Google News searches a total of 12 times, from May 13 until May 18. Attention was evenly divided between “Kagan” and “Elena Kagan” references and trended as high as 3rd, on May 16. On Twitter, mentions of Kagan trended a total of 12 times, from May 11 until May 18, two days longer than on Google News searches. Attention was again evenly divided between references to “Kagan” and “Elena Kagan,” and mentions trended as high as 4th, on May 15. Obviously, given that they trended the same number of times, this is not statistically different.

As can be seen in Figure 1.1, there is not an overwhelmingly clear pattern to the Kagan trends in either venue. However, there is, overall, a slight trend up for Twitter and a slight trend down for Google News searches. Keeping in mind that these numbers are rankings (and thus 10 is lower than 1), this is somewhat surprising. While we would expect a particular trend to lose attention over time, in the case of Kagan in Google News searches, attention actually increases before falling off. While this may be an artifact of the manner in which Google calculates search patterns (which is, unfortunately, unreleased proprietary information), it is an interesting pattern to consider in the future. Given that Kagan appeared in and disappeared from both sources at the same time, neither H2 nor H3 is supported for this case.

For a second case study, I chose to examine the oil spill in the Gulf of Mexico. Following an explosion on April 20, 2010, the Deepwater Horizon oil sank and began leaking oil into the Gulf of Mexico. In the following months, a number of efforts were made to stem the flood of oil, and various governmental actions were taken (most notably, President Obama ordered a moratorium on offshore drilling until investigations could be completed).³⁴ While the oil spill itself is not a political event, it was potentially the consequence of, and certainly the stimulus for, various government policies.

Figure 1.1
Twitter and Google News Trends of Elena Kagan



The Gulf oil spill was referred to in various ways in the two online venues I consider, including “oil,” “oil spill,” “Gulf Oil Spill,” “Gulf,” “BP,” and “top kill.”³⁵ Mentions of the oil spill trended in Google News searches a total of 123 times, beginning on May 2 and continuing until July 6. On Twitter, mentions of the oil spill trended a total of 88 times, from May 2 until July 2. The difference in attention given (in terms of counts) is statistically significant ($t = 6.041, p < 0.01$). It is interesting to note that in this particular case, Google News searches actually indicate greater attention to peripherally political information, whereas we might expect that Twitter would do so, since it is not an online venue specifically dedicated to sharing news and information. However, this story was so pervasive that even if it was only moderately political in nature, it was still big news in legacy media. Moreover, it is further worth noting that Google News continued to register mentions of the oil spill in its top 10 trends beyond the time at which oil spill mentions no longer breached the top 10 trends

on Twitter. This is as expected by H3—events should not persist as long on Twitter as they do in the traditional media. There have been ebbs and flows in the trending for both Google News and for Twitter, as can be seen in Figure 1.2, but generally attention has decreased over time and fell off more quickly on Twitter.

Interestingly, there are substantial differences in the language used to refer to the oil spill in the different venues. While Google News searches heavily referred to “oil” and “oil spill,” they also included references to the major company involved, British Petroleum, and to a particular technique attempted to stop the leak, the so-called top kill. Twitter referred to neither of these more specific issues but did refer quite a bit to the Gulf oil spill, which did not trend on Google News searches. These differences in language suggest different treatment of or consideration to the issue in the different online venues (see Figure 1.3).

Figure 1.2
Attention to the Gulf Oil Spill on Twitter and Google News Searches

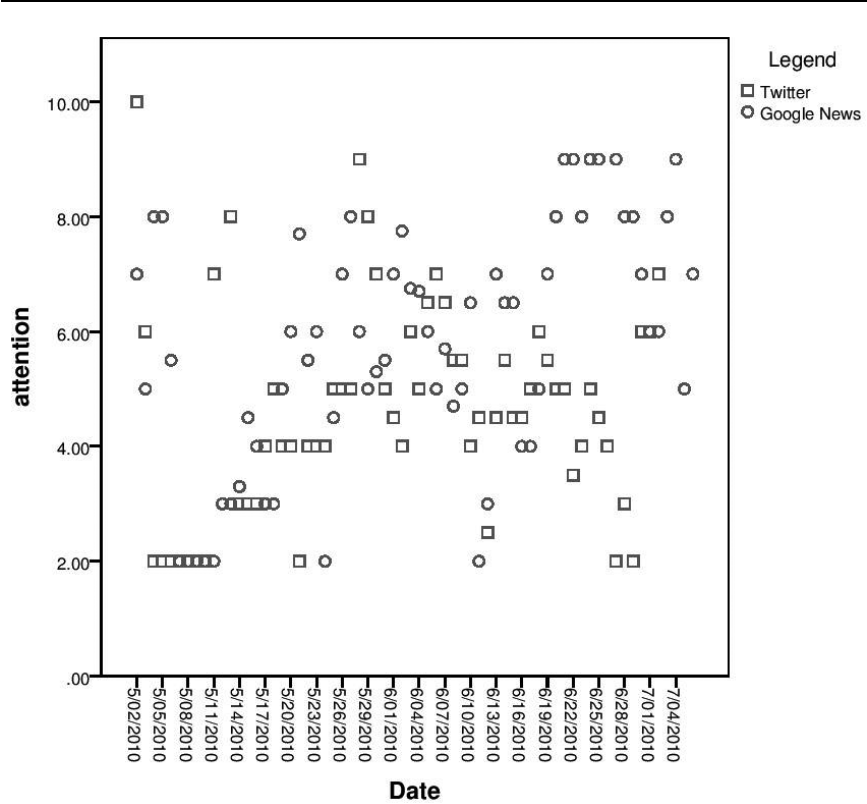
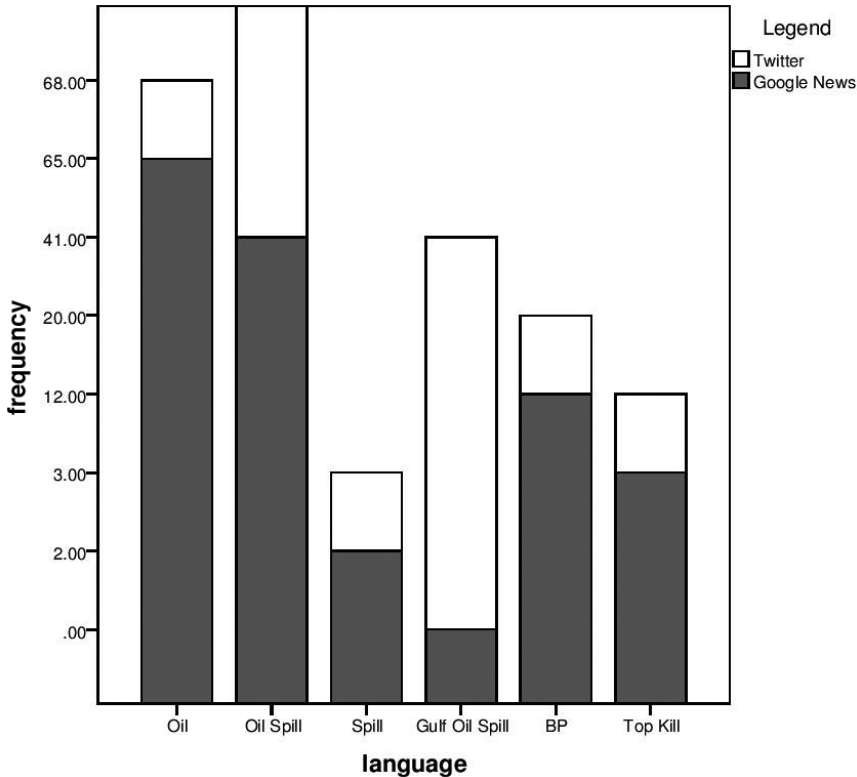


Figure 1.3
Language Used Referring to the Oil Spill in the Gulf of Mexico on Google News and Twitter



Because of the richness of the data, we can also consider how these trends play out in specific geographic areas. In the case of the oil spill, for instance, we might expect that a city on the Gulf of Mexico might be more concerned about the event and therefore engage in more searching for it (in the case of Google News) or sharing information about it (in the case of Twitter). To test this, I compare between a city thusly situated—Houston—and one less directly involved with the event—Philadelphia.³⁶ As can be seen in Table 1.2, this seems to be the case but to varying degrees. In terms of Google News searches, Houstonians are statistically more likely to search for oil spill-related terms than are Philadelphians (68 trend appearances in Houston versus 45 in Philadelphia). This difference, while substantial, pales in comparison to the difference seen on Twitter. In that venue, references to the oil spill trend in the top 10 only five times in Philadelphia, whereas in Houston, they do so an astounding

Table 1.2**Comparison of Oil Spill Attention on Google News and Twitter in Philadelphia and Houston**

	Houston	Philadelphia	t-test Statistic
Google News	68 (0.06)	45 (0.16)	-4.97*
Twitter	100 (0.04)	5 (0.12)	-10.35*
t-test Statistic	5.77*	-6.39*	

* $p < 0.01$

Note: Numbers in each cell are counts followed parenthetically by percentage of content mentioning the oil spill.

100 times. This indicates the diversity of information sharing that goes on around the country, particularly depending on to what extent the community is invested in a particular event.

TIMING OF A TREND

As a second effort to determine how the timing of trends occurs in traditional versus social media, I employed an alternative technique. Using the word-based data from Facebook status updates and wall posts described earlier and Google web and Google News searches, I created a database in which numbers reflect normalized counts of the frequency with which people were posting about, or searching for, the four candidates for president and vice president in the 2008 election.

I used these data to perform a Vector AutoRegression (VAR) time series analysis. VAR models allow modeling of endogenous variables over time. For each variable, an equation is created making the variable a function of its past values and the values (both present and past) of all other modeled variables. After estimating the VAR and testing for the appropriate number of lags, I then perform a series of Granger causality tests, which allow speculation into which trend follows which. This is particularly useful for this study, in that it would be helpful to have more information as to where political information tends to be picked up—or tends to fade—first. I specify separate models for each of the four candidates, with variables reflecting weekly Facebook wall posts,³⁷ status updates, Google web searches, and Google News searches.

Table 1.3 shows the Granger causality tests associated with these data. Generally speaking, there is no clear trend in terms of Obama “catching on” in one medium or the other, as web searches predict wall posts and status updates, but status updates predict news and web searches. This suggests that neither social media nor traditional media has dominance over “getting there first” when it comes to political information: stories may surface in or fade away from either place. Similar analyses were performed for Biden and McCain, with almost identical results.³⁸

Table 1.3
Granger Causality Test for Mentions of “Obama”

Equation	Excluded	Chi-square	P value
Wall	Status	3.51	0.06*
Wall	News	3.59	0.06*
Wall	Web	6.86	0.01**
Wall	All	22.58	0.01**
Status	Wall	0.66	0.42
Status	News	2.98	0.08*
Status	Web	5.64	0.02**
Status	All	11.81	0.01**
News	Wall	1.13	0.29
News	Status	11.31	0.01**
News	Web	4.73	0.03**
News	All	26.46	0.01**
Web	Wall	0.22	0.88
Web	Status	8.00	0.01**
Web	News	6.71	0.01**
Web	All	31.14	0.01**

* $p < 0.10$

** $p < 0.05$

However, the same analysis for occurrences of Palin was quite a different story. As can be seen in Table 1.4, wall postings regarding Palin significantly predict future Google web and Google News searches, but the reverse is not true. For the case of Palin, it seems that information surfaced in social media like Facebook and was then picked up by or searched for in the mainstream media. It is unclear why this case is so different from the others, but it is possible that Palin’s novelty as a new and relatively unknown candidate contributes to this difference. Future research should test this as a possibility.

CONCLUSIONS

The overall story that seems to emerge from the data is twofold. First, as expected, there tends to be less political information on Twitter than what people are searching for on Google News. On a national scale, the difference is consistently significant, with Twitter demonstrating less attention to political information.

However, the second part of the story is equally important. While there tends to be less political information on Twitter, there *is* such information—enough to regularly occur in the top 10 trends nationally as well as in specific cities in America. Moreover, in some circumstances attention to a political trend achieves parity on Twitter, as in the case of

Table 1.4
Granger Causality Test for Mentions of “Palin”

Equation	Excluded	Chi-square	P value
Status	Wall	3.45	0.06*
Status	News	1.10	0.29
Status	Web	0.28	0.60
Status	All	8.40	0.04**
Wall	Status	3.71	0.05*
Wall	News	0.50	0.48
Wall	Web	0.01	0.94
Wall	All	11.00	0.01**
News	Status	2.85	0.09*
News	Wall	7.19	0.01**
News	Web	1.08	0.30
News	All	8.85	0.03**
Web	Status	2.72	0.10*
Web	Wall	7.24	0.01**
Web	News	0.02	0.89
Web	All	10.66	0.01**

* $p < 0.10$

** $p < 0.05$

the nomination of Elena Kagan to the Supreme Court. Future research should consider under what circumstances such parity is achieved, and which sorts of events are treated most similarly and most differently in social media as compared to legacy media.

The simple existence of political information on Twitter has important consequences, in that the politically uninterested may not be as successful at opting out of politics entirely as some scholars have feared they would. Online consumers who use Facebook or Twitter for entertainment purposes or to stay in touch with friends may very well be exposed to political content they did not seek out. This fundamentally changes the portion of the population exposed to political information, with important democratic consequences of such exposure.³⁹ Whereas in a high choice media environment, prior to the advent of social media, users were able to opt out of politics almost entirely, creating a large information gap among the most and least interested;⁴⁰ evidence presented in this chapter shows that is no longer the state of the world. Political information is consistently present in social media and across social media platforms, suggesting that users of such media are similarly exposed to political information. Moreover, some expectations we might have of how information is spread on Twitter and similar media may be misguided. While it was anticipated that Twitter would pay only immediate attention to a particular topic before moving on, in each of the case studies that was

not found to be the case. Content on Twitter paid similar attention (as compared to legacy media) to the issue of Kagan's nomination and relatively similar attention to the oil spill in the Gulf of Mexico. It is possible that these cases are unusual in some way, but they at least suggest that certain topics can capture the attention of a less interested sector of the population for extended periods of time. Future research might consider whether factors like national attention via legacy media, niche public attention in the form of a particular issue or issue area, other news occurring over the relevant period, and the type of story itself affect attention to a topic on social media.

Similarly, data from Facebook suggest that there is not a clear agenda-setting trend between the mainstream media and social media. Generally speaking, they pick up trends from one another, but there is no clear relationship of one consistently following the other. Of particular note here is that in some cases social media may actually lead legacy media in attention to a particular media topic. In the case of the emergence of Sarah Palin as a national figure during the 2008 election, this was the case, suggesting that under certain unknown circumstances, legacy media may actually follow public opinion as expressed via social media.⁴¹ Indeed, we see evidence of this as legacy media has recently made it commonplace to comment on social media⁴² as well as analyze it.⁴³

Obviously this is not the whole story when it comes to the existence of and exposure to political information via social media. This study is limited by considering only the top 10 trends in only two areas, which could potentially bias the results we see. It is unclear whether a wider universe of information would yield either more or less political information in either of the two venues, but future research should cast the net wider with regard to the informational flows considered. Similarly, this study is limited to a relatively short time period, which could limit the understanding of trends. A wider time range will allow any short-term effects to dissipate, resulting in a clearer picture of the actual differences in the amount and persistence of political information on Twitter and in Google News searches. And social media is an ever-changing media environment, so scholars should continue to study these issues as they evolve. Still, this study represents an important step in understanding how political information is flowing in areas of the Internet, which are yet unstudied from such a perspective.

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36. Houston and Philadelphia are otherwise rather similar cities, with roughly comparable populations (2.3 million versus 1.5 million), large minority populations (Houston is 47.2% white, Philadelphia is 41.6% white), and similar median age (33.5 compared to 35.6).

37. Facebook “counts” statuses and wall posts differently, which is why these are separated. Wall posts include posting something on someone else’s wall as well as links or pictures posted on one’s own wall.

38. Omitted for space and redundancy. Available upon request from the author.

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Chapter 2

What Campaigns Become as Social Media Become the Infrastructure of Political Communication

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INTRODUCTION

Changing structures of communication become transformations of social institutions. That is a Deutschian point.¹ Others have also pointed out this connection, but Deutsch started with this observation in the early 1950s, and it was an important focus for his entire distinguished career.² His primary focus was on the development and reconstruction of nation-states. That is not the focus here. Our focus is on changing communication and the practice of elections—especially elections in the United States.

Harry Truman campaigned in 1948 with a whistle-stop tour. Railroad was the infrastructure for reaching the people of the nation. The year 1950 was the first tentative step in what was to become the television age. The first campaign ad was broadcast in 1950 by William Benton, who was a candidate for the Senate in Connecticut. By 1952 both presidential campaigns were broadcasting political ads, and that has been much of the story of American elections since.

There is a revolution in the infrastructure of communication that is equal to the shift from railroad to television. What we call social media are ubiquitous. They grow atop the Internet, and they have become the next step in human communication. Facebook is the leader in number of users. In August 2015, for the first time, a billion users logged onto Facebook in a single day.³ Twitter has fewer users, but it is the infrastructure for more than 500 million messages a day.⁴ By examining the use made of Twitter we will trace the transformation this new stream of communication is bringing to elections.

There is a growing interest in social media and elections. Much of the work by political scientists has been related to the changing campaign practices of candidates, as they more and more successfully target groups with messages of interest and then use social media to encourage turnout. There is other research designed to identify the impact of social media on voting decisions.

Our focus is somewhat different from these programs of research. We are interested in the flow of communication during the election and how that flow is both independent of the media that have been paramount and how the two are intertwined. Communication via Twitter is the focus because, like the traditional mainstream media, it is public communication. There is a limited ability to post messages that will be seen only by the users to whom they are directed, but it is used quite infrequently. Our focus is on public communication—specifically public communication in an election.

After describing the data used in the analysis, there is a brief review of the current state of television viewership. That is followed by a section which is a case study of the spread of communication from one individual to millions. The point is to provide an example of how the flows work that will be summarized at a high level of aggregation in the rest of the report. The volume of communication is first examined. That is followed by how the flow is structured. The last piece of the analysis examines what the communication is that is flowing through these networks. And we conclude with what we think is an important policy consideration arising from this analysis.

METHODS

The data were collected from the Streaming API of Twitter, with the first and last names of each candidate serving as the search terms. The Streaming API is a sample of the total stream of messages. One percent is the general understanding of the size of the sample, though Twitter does not make an official statement about size.

The data collection began in February. We have collections for Bush and Clinton and some other candidates beginning at that point. Early in the campaign, one of the questions was who is going to run; there was no

definitive list. We began data collections as candidates seemed to be close to entering the race. The period covered in this report is March 23 through June 27. The 14 weeks were chosen because this was the period during which most of the expected political candidates announced. Bernie Sanders and Donald Trump, who were unexpected candidates, announced later in the summer, and their entry into the race will be covered in future reports.

The data are aggregated at the week level to smooth out temporary fluctuations. The day a candidate announces that he or she is going to run generally has a large spike in messages. We will examine those spikes in another chapter. There are other daily fluctuations, though few are as large as the announcement day. For this chapter, we are interested in the overall flow of messages, and aggregating by weeks smooths out daily fluctuations.

CURRENT STATUS OF TELEVISION NEWS

The infrastructure that made television what it was from 1950 to present is disintegrating. Landlines that are expensive and owned by a few corporations are no longer necessary for video entertainment or video news. One result is fewer people getting their news from cable news programs as they can now go elsewhere.⁵ Between 2009 and 2014, the viewers getting news from cable news dropped by 20 percent. At the same time, trust in the fairness and accuracy of mainstream media fell to a new low. Gallup found that only 40 percent of respondents felt they could trust mainstream news.⁶

Where are people getting their news from if television is a declining source? Almost two-thirds of Facebook and Twitter users say they are getting news from these social media.⁷ And just as it has been the youngest generations adopting social media earlier than other generations, the same is true for accessing news via social media.⁸ More than older generations they are using social media to “keep up” with the world. And there is no reason to believe this will change as they age. Use of social media started with the young. That generation continued using social media as they aged, and the next generation is more active than the first generation of the social media age.

For over 50 years, what was called mainstream media was the dominant flow of public communication about politics. It was not quite monopoly control, but it was the dominant flow of public political communication. That dominance is now declining, and social media are arising as an independent flow of communication about politics. So the task is to understand what this new stream of communication is, how it works, and with what impact.

ONE INDIVIDUAL WHO REACHES MILLIONS

Subsequent sections present highly aggregated counts of communication about the early campaign in the presidential election of 2016. This section is about a single individual. Every general point to be made can be seen in this case. It is a personal version of the general patterns we have found. How individual action produces the general patterns is the story to be told here.

Bernie Sanders has had two primary groups of followers. One group is liberals who have been liberals since the sixties and seventies and who are people of his age. The other is young people. We know how the liberals find out about politics. They are avid consumers of news: television, news websites, books, and other sources. But we know the youngest generation do not watch television, and especially they do not watch commercials. They do not read the news, whether the paper version or the electronic version. So, how do they learn about Bernie Sanders? If not mainstream media, what?

Ms. Z illustrates how they are learning. She tells us she is 17 years old. Twitter reports she has had an account since December 2011. Twitter also reports she has 40,000 followers and has posted 22,400 messages to Twitter since opening her account. Twenty-two thousand tweets and 40,000 followers seem remarkable. It also seems more likely to be the activity of a bot than a human being. Her profile page makes it abundantly clear that this is a person and not a bot. There are many, many selfies as well as photos with friends posted to Twitter. The location and the poses are so different that they could not have been extracted from a professional collection of photographs. The interaction in the stream of messages as they respond to each other and retweet what others have written makes it clear that the 40,000 number for followers is about interaction rather than simply others reading whatever she posts. She and her friends write about feminism, each other, sex, and politics. The politics is embedded in their multifaceted stream of communication.

On July 1, 2015, she posted: “Bernie Sanders: <http://t.co/9ekKbf5FAB>.” Table 2.1 indicates that on that day 5,159 retweets were found. Then 631, and 154, and on for a total of 6,681 retweets found in the search for Twitter messages mentioning Sanders.

In addition to being a substantial number of retweets, it is important to notice the number of days covered. Most retweets die in seconds. A string

Table 2.1
Retweets for Bernie Sanders: <http://t.co/9ekKbf5FAB>

Date	July 1	July 2	July 3	July 4	July 5	July 6	July 7	July 8	July 9
Tweets	5,159	631	154	80	46	168	250	188	5

of retweets that covers more than two minutes is in the top 99th percentile. But this retweeting extended for nine days. It is a pattern of interaction in ongoing communication that is quite different from the normal pattern.

The tweet was not important because of his name. It was important because of the URL. She took a tweet from the Sanders campaign that explains in modest detail what he stands for and made it her own. How are you going to find out about Bernie Sanders? Click on this URL. Since without clicking one has no idea what the URL references, it must have been clicked at least 6,681 times.

Then on July 6, she posted another tweet about Sanders, “Bernie Sanders calling out the GOP’s extremism <http://t.co/Gin7rMsdF5>,” that led to a 30-second video of Sanders doing just that.

Table 2.2 indicates that it was retweeted 330 times, then 2,280, then 157, and then 31, for a total of 2,798. And on July 9 she posted, “YAAAS FUCK IT UPPPP #Bernie2016 <http://t.co/cvMb1zdGi1>,” that links to a one-minute thirty-second video. It features these themes: “Why? He’s maintained consistent convictions on income inequality, women’s and LGBT issues, student loans, and a host of other issues for thirty years.” It was retweeted 2,146 times.

The number of retweets, at 11,625, is impressive, but that is only the beginning. Each of the retweets is available to the followers of the individuals retweeting. How many individuals is that? The first step is reducing the retweeters to unique retweeters. When you reduce it to unique individuals, the number of followers with access to the messages are: (1) Bernie Sanders 3,563,007, (2) GOP extremism 2,153,760, and (3) YAAS 1,255,303—millions. There is an overlap in the message stream as some people get two or more messages from the individuals retweeting. But even if you cut the numbers in half to take this into account, there are still millions. This 17-year-old young woman and her friends have a reach equal to the most popular television news programs.

Present in this case is a very active user of Twitter. There are many active users. But 22,400 tweets need some explanation. For Ms. Z and the 7,499 individuals who retweeted her messages, Twitter reported they had posted 134,575,233 messages. The penchant for text messaging is well

Table 2.2
Retweets for Three Tweets

Date	July 1	July 2	July 3	July 4	July 5	July 6	July 7	July 8	July 9	July 10	July 11	July 12
Bernie Sanders		5,159	631	154	80	46	168	250	188	5		
GOP extremism						330	2,280	157	31			
YAAS									659	604	598	191

known, and part of text messaging is many messages per day. These Twitter users have taken text messaging public. Are they going to change some time in the future? Probably. But just as the young first adopt new communication technologies and are now more frequently using social media for news, therefore, what has been private communication becomes much more public. Activity is what one first notices.

Second, the use of the primary technique for organizing communication on Twitter, which is following, stands out. It is a tool for reaching out, but it is also a tool for interacting. The messages back and forth on the profile page make that clear. The mutual relationships produce trusted communication. When one of the followers encounters a tweet that is a name and a URL, if it is trusted communication, you click on the URL. Having read what the URL led to then it becomes retweeting as the individual passes it along to followers as important communication. The flow of messages through the network they have constituted for themselves moves as trusted communication. Note how different this is from the reaction to mass media communication.

Third, there were three URLs in the communication. None came from mass media. That does not mean they never use URLs to pass along news from mass media. It does mean that this is a stream of communication that is only partially related to the communication called mass media.

VOICE

Broadcast and audience were the structure of public communication in the age of mass media. Broadcast can reach large numbers of people. The audience members could talk with their friends, but that was the limit of their reach. Social media, and particularly Twitter, changed this structure. What the audience now has is a voice with a reach that can be as wide as that of mass media. A user writes a message and posts the message to Twitter. Twitter potentially broadcasts it to the entire population of users. Most of the users will not find the message, but some will because they follow someone who posts or reposts it or they engage in search. Often the number of users who find the post is very large as was the case for Ms. Z.

One way to examine their use of voice is to look at what they write. In this election they support the candidate of their choice.

Yes!! Chris Christie is running for president! 2012 Jaime predicted this election! I just hope he gets enough backing from those

@KPRC2 Rick Perry is going to jump in the race but I hope he is ready

Both are interactions. Yes!! is a response to another, and the second is a personal statement in reference to a Houston TV news report from @KPRC2. They oppose candidates.

Scott Walker is a national disgrace

don't want ted cruz to become prez for many reasons but mostly because i can't stand seeing his face every day on my twitter feed

They become persuaders by offering reasons for supporting and opposing candidates

reason to oppose: Jeb Bush Isn't a Moderate—He's a Neocon Extremist

reason to oppose: @SenJohnHoeven why is Hillary Clinton not brought up on charges? Campaign fraud, lying under oath Benghazi. Justice for all?

reason to support: Mike Huckabee takes a stand on the Constitution-by showing us the Declaration of Independence. Well done Governor.

reason to support: Jeb Bush vows to stay true to beliefs in launching presidential bid

They share news. They also take the stance of an expert.

Great profile on @JohnKasich written by the talented @ellencarmichael. Kasich will be a formidable candidate for GOP.

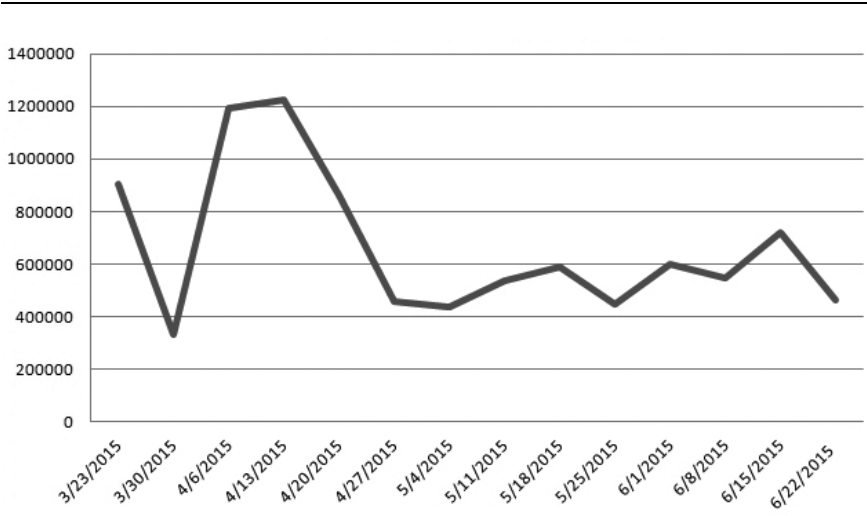
Marco Rubio will try to find way in early GOP primary states

Both are predictions—the kind of predictions one expects to come from experts.

The potential for examining how people are characterizing the candidates and the election and how that changes through time is great, but that is not the objective here. The objective is to examine the volume of messages flowing as a contrast with mainstream media. The total collection for the 14 weeks was 9,320,444. The 9 million is messages being posted. It is not individuals receiving messages. It is only a sample of the total number of tweets mentioning one or another of the candidates. Figure 2.1 shows the week-by-week variation in the flow of tweets.

Aside from three spikes, the range of messages posted to Twitter mentioning one of the candidates was between just over 600,000 and down to just under 400,000. The three weeks of March 23, April 6, and April 13 were far out of that range. There were just over 900,000 tweets in the week

Figure 2.1
Tweets Per Week for 13 Candidates



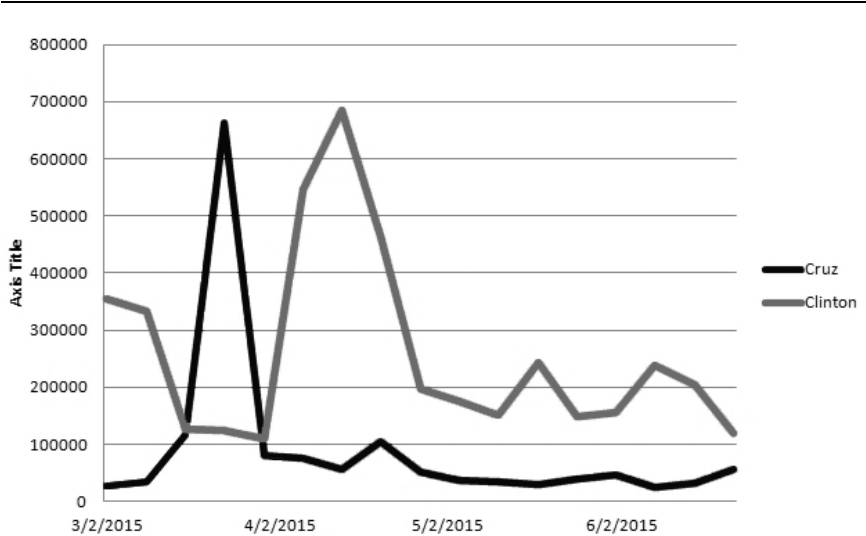
of March 23 and approximately 1.2 million in the two April weeks. The three weeks illustrate how a single occurrence can activate Twitter users on a large scale. What happened is clear when the tweets for Cruz and Clinton are examined.

The blue line in Figure 2.2 is tweets mentioning Cruz. It spikes on the first week of the 14 weeks in Figure 2.1 when he announces he will run for the nomination. There are almost 700,000 tweets mentioning him that week. There is a week without much going on and then Clinton announced her intention to get the Democratic nomination. The attention to her announcement is about 550,000 the first week and almost 700,000 tweets the second week. These are the two largest announcement spikes, but there was a spike in the messages mentioning the candidate each time one announced the intention to run.

The number of tweets per candidate varied widely. Table 2.3 provides those counts.

Hillary Clinton was mentioned in many more tweets than any other candidate. Three million is impressively more than the next closest, which was Jeb Bush with 1.1 million tweets mentioning him. Many of the messages were not complimentary. The opposition to Ms. Clinton serving as president is very strong in the Republican Party, and many of the 3 million tweets are negative rather than positive. The tweets let both supporters and opponents express their sentiment and make arguments for the candidates they favor or oppose. The number of tweets is parallel to number of individuals supporting the candidates. At the time Bush was leading

Figure 2.2
Cruz and Clinton Announce



in the Republican Party. Rand Paul, Ted Cruz, and Marco Rubio were the candidates closest to Jeb Bush. The rest of the candidates were less frequently mentioned than were the leaders.

The period examined is quite early in the campaign. The standard expectation is that most people will not pay much attention to the election until much later. But 9 million tweets is an impressive volume of messages even if spread over three months. Nine million tweets 7 months before the very first votes in Iowa and 16 months before the election is very early commentary. People using Twitter to comment on the election and the candidates produced a very large stream of messages.

Table 2.3
Number of Tweets for Each Candidate

Candidate	Number Tweets	Candidate	Number Tweets
Hillary Clinton	3,326,822	Chris Christie	388,125
Jeb Bush	1,123,655	Rick Perry	252,454
Rand Paul	825,248	Bobby Jindal	175,382
Ted Cruz	588,092	Mike Huckabee	164,924
Rubio	585,372	Santorum	150,583
Walker	450,224	John Kasich	39,979

VIEWS

Nine million is a very large production of messages. The next question is how many were viewing these messages? Viewing is harder to count than posting messages because there are two primary ways to encounter a message. One is by following a user who posts or retweets a message. The messages posted by a user is becoming the stream of messages that are available for reading. The number of followers of the user posting a tweet is information Twitter makes available as metadata about the tweet. Another way to encounter messages is by searching. Twitter makes it possible to search for messages about something that interests you. If you want to know what Twitter users are writing about one of the candidates, you can search for the candidate by name, and Twitter will add all the messages mentioning him or her to your stream. Twitter does not provide comparable information about the search activity of users who find a tweet through search. A survey of Twitter users showed that 67 percent found news by browsing tweets from people they follow, and 30 percent found news by searching for hashtags and phrases.⁹

Table 2.4 adds the average number of followers per Twitter messages mentioning the candidates. These are very large numbers. Tweets mentioning Ted Cruz have an average of 15,920 followers. That leads all of the candidates. Most are just over 10,000. Walker and Christie have the fewest average followers per tweet at 6,875 and 7,514.

Candidates have many followers, and each tweet they post is available to those many followers. The range of followers of candidates is from 4.22 million for Hillary Clinton to 20.9 thousand for Bobby Jindal. Jindal and Christie are the only candidates who have fewer than 100,000 followers. Bush, Walker, and Santorum have 200,000+ followers. Perry has 300,000+ followers. Cruz and Huckabee have 400,000+ followers. Rand Paul has 680,000 and Rubio has 840,000 followers. However, the tweets posted by the candidates are a tiny fraction of the tweets mentioning them. A broader way to count followers is in a separate analysis covering

Table 2.4
Average Number of Followers of Users Tweeting

Candidate	Number Tweets	Average Followers	Candidate	Number Tweets	Average Followers
Hillary Clinton	3,326,822	10,758	Chris Christi	388,125	7,514
Jeb Bush	1,123,655	11,632	Rick Perry	252,454	9,139
Rand Paul	825,248	12,140	Bobby Jindal	175,382	10,198
Ted Cruz	588,092	15,920	Mike Huckabee	164,924	12,728
Rubio	585,372	13,708	Santorum	150,583	10,013
Walker	450,224	6,875	John Kasich	39,979	9,315

a diverse set of collections. Half of users posting messages about politics had more than 5,000 followers.

Political communication is communication that is highly connected through the follower relationship, and that means the views of messages are very large. For example, if you multiply the 3 million tweets mentioning Clinton by the 10,000 followers, you get an extremely large number. That is spread over a three-month period, but it is still a very large number of views of the campaign-related tweets.

Early in the history of mass media, Lazarsfeld et al.¹⁰ and Katz and Lazarsfeld¹¹ developed the idea of a two-step flow of communication. In that period, the two steps were very personal and had minimal reach. A person particularly interested in politics paid careful attention to news about politics and informed his or her friends who were less interested and thus less likely to follow news about politics. It was not limited to politics; any subject of interest would be likely to find individuals who were more interested than their friends and thus pass along news to their friends. With Twitter, the two-step flow is formalized through the follower relationship. But on average, the reach is much larger than the face-to-face communication traced by Lazarsfeld and Katz. Two steps is an arbitrary stopping point. It is possible to trace follower relationships over long trails. When network analysis is done, the relationships do not stop with two steps. However, the importance of the two steps is trusted communication. One characterization is users follow individuals who are like themselves. That makes a difference in two ways. One, it limits the variety of communication a user receives from those followed. Two, the users to follow are chosen because the individual believes he or she will get communication he or she would be interested in from those he or she follows. Trust is very low for the mainstream media. In general, one wants news you can trust. This is more readily found in the follower relationship than mainstream media.

The message flow is substantial, and the views are even more substantial. How could this have an impact on the practice of election campaigns? One way to answer that question is to look at Bernie Sanders going to Portland.

According to field director Phil Fiermonte, it does little else to promote turnout. "We have not spent any advertising dollars on these events," he said. "It's not like we have lots of staff on the ground making phone calls."

Instead, it's left to Sanders' largely self-organized, grassroots support to deliver the crowds.¹²

"Self-organized, grass-roots support to deliver the crowds." They started planning for 6,000. The responses to news about the rally overwhelmed 6,000, and they moved the rally to the coliseum that could seat

19,000. It was filled, and 9,000 were outside as Sanders spoke. When Sanders held his rally in Portland, it was the largest crowd up to that point with 28,000 in attendance. How did the grassroots deliver the crowds? If you search the collection of messages mentioning Sanders for references to Portland, you find the following distribution by day.

Table 2.5 indicates the number of tweets is not large, at between 282 and 1,089. The 1,089 for August 9, the day of the rally, is a count through 6:00 pm before the rally started at 7:00. However, the average number of followers per tweet ranges between 3,062 and 1,273. That produces a stream of messages with very substantial reach. There were other new media communication messages about the rally. Blogs and Facebook messages were also present. Social media is the way self-organized and grassroots supporters can reach a large number of people about an event such as this rally.

The percentage of messages with a URL is quite striking. The normal range for political communication is between 30 percent and 70 percent.¹³ One could look at those numbers and think this was a Katz and Lazarsfeld two-step flow from mainstream media to active supporters to their followers. That would be a misreading of the situation, however, because the mainstream media is almost nowhere to be found in the citations via URLs. Users posted 11,746 URLs as part of their messages about the Portland rally. The domain names are part of the URL, so one can find that 413 referred to communication on Facebook, for example. Table 2.6 lists the URLs of mainstream media and URLs from other domains that would not be considered mainstream.

There is no definitive list of mainstream. A search for well-known media corporation domains found 7 included in 56 tweets as URLs. The not-mainstream is all domains that were referred to 20 or more times. Facebook leads the way by appearing in 413 tweets. BernieSanders.com is a Sanders website. A few are not well known; Page.is is a system for creating one's own website, Dragplus is a graphics program used for creating images, OYUZ is a "news monitoring and analysis tool." The number of not-mainstream with 1,280 references overwhelm the mainstream references that have a total of 56 references. However, those referenced fewer than 20 are even more overwhelming. Only 1,336 domains are either

Table 2.5
Supporters Announce Portland Rally

Date	Tweets	Followers	Average Followers	% URLs
August 6	452	921,441	2,038	74%
August 7	282	872,023	3,062	84%
August 8	486	880,244	1,811	88%
August 9	1,089	1,386,383	1,273	87%

Table 2.6
Comparison of Mainstream and Not Mainstream Referred To

Mainstream Domain	Number URLs	Not Mainstream	Number URLs
CNN	28	Facebook	413
CBS	9	BernieSanders.org	158
<i>New York Times</i>	7	YouTube	157
<i>Washington Post</i>	5	Page.is	111
Fox News	5	Twitter	110
Bloomberg	1	Dragplus	65
MSNBC	1	OOYUZ	62
		LinkedIn	58
		Reddit	48
		Google	41
		UniteBlue	34
		Medium	23
Total	56	Total	1280

mainstream or appear more than 20 times in the tweets out of 11,746. Diversity is the primary character of the domains referred to in the tweets mentioning Sanders's appearance in Portland. Given these numbers, it is difficult to construct the flow as: mainstream to supporter to followers. Media are coming from everywhere in these tweets.

Grassroots supporters reached out to hundreds of thousands via Twitter and other social media. The result was a rally of 28,000 in Portland that overwhelmed any site they could find to hold the crowd. As the campaign progresses, they are able to hire staff to assist organizing with the money they have received in small donations. However, they also expect to continue working with grassroots supporters to spread the enthusiasm for the campaign and its message.¹⁴

INTERDEPENDENCE

As was true for local supporters organizing the rally for Bernie Sanders, it is also the case that most of the tweets posted mentioning a candidate included a URL. A URL generally refers to information that is not available on Twitter. It is a reference that one can follow to learn more than can be included in the 140 characters of a Twitter message. It is also part of the trusted communication that generally characterizes the follower relationship. The user who is including the URL is suggesting that there is something of interest here for followers. Followers who trust the user posting the URL are likely to click to see what it is. That is certainly what happened when Ms. Z was posting very brief tweets and was including a URL.

Table 2.7
Comparison of Mainstream and Not Mainstream Referred To

Candidate	% Messages with URL	Candidate	% Messages with URL
Bush	80.2	Kasich	89.4
Christie	81.4	Paul	74.8
Clinton	74.8	Perry	62.5
Cruz	67.3	Rubio	93.5
Huckabee	67.8	Santorum	75.2
Jindal	79.6	Walker	83.3

The percentage of tweets mentioning the candidates that also included a URL are presented in Table 2.7.

The extremes are 93.5 percent for messages mentioning Rubio and 62.5 percent mentioning Perry. Eight are in the range of 70 to 80 percent. As already noted, this is very high by standard practice in political communication. What does that mean? It means that the candidates are not well known, and searching and sharing are important to become informed. There is an additional way to understand this activity. If one assumed that all the information available came from mainstream media, then there would be little reason to pass along URLs. Everyone would be reading and watching the same mainstream. In that construction, mainstream is all that is available. If it is not all that is available, then finding the information becomes a challenge. Users who are particularly interested seek out the not-mainstream and are anxious to share what they have found that others would not necessarily encounter.

An analysis of URLs included in Twitter messages about Jeb Bush and Hillary Clinton illustrates the diversity of the sources being cited in URLs.

Eighty percent of tweets mentioning Bush and Clinton contained a URL. The number of domains included in the tweets is given in Table 2.8. In the 14 weeks, 19,089 domains were cited in the messages mentioning Jeb Bush and 44,948 were cited in messages mentioning Clinton. There are three times as many messages mentioning Clinton as mentioning Bush, and the difference in domains mentioned is parallel to the difference in the number of tweets. These are not unique domains. They are the cumulative total of

Table 2.8
Domains Cited in Tweets Mentioning Bush and Clinton

	Total		Mean per Week	
	Bush	Clinton	Bush	Clinton
Domains cited	19,089	44,948	1,363	3,211

domains unique to each week that appeared in tweets. That was a mean of 1,363 unique domains a week for Bush and 3,211 domains for Clinton. The mean is a mean of unique domains cited each of the 14 weeks. These are very large numbers. There were 1,363 and 3,211 different sources cited in the tweets mentioning the candidates every week. That goes well beyond anything one might consider mainstream media. This is diversity on a large scale.

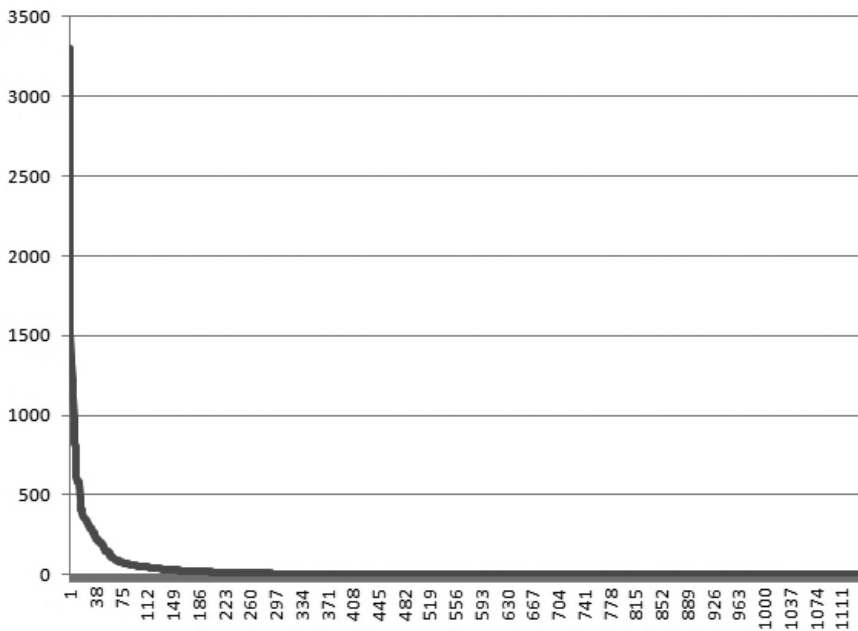
This picture of diversity is modified when the number of tweets in which a domain appears is examined. The distribution of the number of times a domain is mentioned is shown in Figure 2.3.

The figure is for one week of Twitter messages mentioning Bush. There is almost no variation from week to week or between the candidates. Each week for each candidate the distribution is heavily skewed toward the top. There are a few domains that appear in many tweets and many domains that appear in only a few tweets. The domains appearing most frequently are included in 1,000–3,000 tweets. The Gini index for this week is 36, and it is very similar for all the other weeks. This is the picture of concentration. A few domains dominate the distribution.

To bring diversity and concentration together, the top 10 most frequently cited URLs are compared with the rest. Since the distributions

Figure 2.3

Bush: Number of Times Domains Were Cited Week of April 20, 2015



are skewed, taking the top 10 to compare with the rest is a way to examine diversity and concentration simultaneously. For tweets mentioning Bush, 35.5 percent of the tweets containing a URL are top 10 domains. That is the concentration. The diversity is 64.5 percent of the tweets cite domains that are not in the top 10. For Clinton, the diversity is a bit greater. Thirty percent of the tweets including a URL are from the top 10 most frequently mentioned domains, and 70 percent are in tweets mentioning domains that are not found among the top 10.

Table 2.9 shows the number of weeks a domain appeared in the top 10. The distribution of the top 10 are remarkably similar. There is no surprise at the top. It is the *New York Times*, Google, Facebook, and Twitter. The *New York Times* is mainstream media and the others are not. The rest is a mix of pre-Internet news sources and Internet-based news sources. The *Washington Post*, CNN, the *Wall Street Journal*, and others have a long history. But the news sources that have come into being with the Internet outnumber the older sources. *Huffington Post* is in the top 10 eight times in Bush tweets and five times in Clinton tweets. *Politico* is in the top 10 for 11 weeks in messages mentioning Clinton and 5 weeks for Bush tweets. This may be mainstream media as we know it now, but it is not what was considered mainstream in the past.

Table 2.9
Weeks Each Domain Appears in the Top 10

Bush		Clinton	
<i>New York Times</i>	14	14	<i>New York Times</i>
Google	14	14	Google
Facebook	14	13	Facebook
Twitter	12	11	Twitter
<i>Huffington Post</i>	8	11	<i>Politico</i>
<i>Washington Post</i>	7	10	Linkis
Linkis	6	5	<i>Huffington Post</i>
<i>Politico</i>	5	4	<i>Washington Post</i>
Elluni	5	4	YouTube
PoliticusUSA	4	3	CNN
CNN	4	3	The Blaze
Breitbart	3	3	Breitbart
Daily Kos	3	2	Eluni
Buffer	2	2	WordPress
<i>International Business Times</i>	2	2	PoliticusUSA
<i>Wall Street Journal</i>	1	1	ABC News
Klout	1	1	<i>Wall Street Journal</i>
BBC	1	1	Vox
Think Progress	1	1	The Hill

The picture is one of concentration and diversity. At the top there is diversity of mainstream media and new media. But the rest is large-scale diversity, which is a very large number of sources that are cited infrequently.

CONCLUSION

The starting point for this report is that changes in the institutional structure of communication are intimately connected to transforming the structure of societal organization. This is particularly true for politics, which once past guns rule, is largely communication about the kind of society in which we want to live. Politics was different when the railroad was the infrastructure for reaching the people. It was different when television became the infrastructure for reaching the people. It will be different as social media give voice to citizens that is unmatched in our history. With the advent of social media, the voice of citizens can have the same reach as was available through mass media.

In *Citizens United* and subsequent decisions, the Supreme Court has ruled that “political campaign speech” includes the ability to spend close to unlimited money in political campaigns. It is first amendment speech and it is protected by the First Amendment. In the age of mass media, there is an obvious rationale for this construction of campaign spending. Mass media was the only structure in the society with a national reach. Television became available to very close to all citizens. But money is a barrier to utilizing mass media. If you want that reach, you have to pay. Hence, campaign spending becomes political speech for reaching the entire citizenry.

This report demonstrates that the reach once available only through mass media is now available widely through social media. In following the news through the structure provided by Twitter or in a communication network like Ms. Z and her friends have built for themselves that audience finds voice with reach that may be as wide as the reach of mass media. When politicians come to understand how important the new social media can be, the dominance of television will fade. That does not mean video communication will completely go away nor does it mean that campaigns will be contested with no money. It does mean mobilizing your supporters becomes as or more important than television advertising. The Sanders campaign illustrates what this can mean as a candidate with almost no financial backing is able to energize supporters. One might call it citizen democracy instead of campaign democracy. And it will drive down the cost of campaigns.

The obvious policy point resulting from this analysis is to keep the system open. The infrastructure on which social media is built is the Internet.

What was originally a decentralized system held together by agreement on protocols is becoming much more a system of large corporations with an interest in making as much money as possible. Net neutrality is the current policy up for grabs. The corporations lost at the FCC, so they have turned to the courts to gain greater control over “their property.” They would transform the Internet into private property. That would let them control what is “free speech” and what becomes so costly that speech is back to the television age.

If democracy is the people having voice, we are right on the edge of realizing that. It is important that the institutions making that possible remain open to all.

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Chapter 3

Facebook in Presidential Elections: Status of Effects

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HELLO WORLD: MEDIA IN PRESIDENTIAL ELECTIONS

Both John Adams's and Thomas Jefferson's parties used newspapers (particularly in the mid-Atlantic states) to sway public sentiment and drum up support for their candidates in the 1796 presidential election.¹ Presidential candidates' voices could first be heard by the geographically disparate masses in 1924, as Coolidge and Davis campaigned, in part, via radio.² The Kennedy-Nixon debates of 1960 were the first to be televised and have been widely reputed to be a critical factor in Nixon's loss. Clinton and Dole were the first, in 1996, to develop static web pages to explicate political platforms.³ Mass media have a long history of quick integration into American presidential politics, with wide ranging effects, both in election results and in the public's communication. Senators Obama's and McCain's 2008 campaigns heralded a similar shift in the landscape of available media, following the rise of social media.

The 2008 presidential election and its primaries saw the active adoption of social media platforms, particularly by the Obama and McCain campaigns, as well as the news media, with many Americans utilizing the

then-new social media tools Facebook and MySpace to learn more about candidates.⁴ Amassing about 3 million Facebook supporters,⁵ Obama and McCain sought ways to disseminate information and connect with (particularly young) voters via channels not previously available. Indeed, 65 percent of users—40 percent of those between 18 and 29—engaged in a political activity through Facebook in the 2008 election.⁶

The subsequent election saw a marked change in how both campaigns and individuals utilized social media. Though Facebook remained the dominant social medium in 2012, MySpace's use had declined, replaced by Twitter and Instagram in both general use and as platforms for political communication. President Obama's and Governor Romney's campaigns extensively used Facebook, Twitter, and YouTube to connect with and energize potential voters. Combined, the candidates posted content to Facebook multiple times a day, reaching 48 million Facebook "Likes"—representing approximately 37.2 percent of the 129 million voting Americans.⁷ Social media were so thoroughly integrated as campaign tools that news media began to use candidates' social network site (SNS) accounts as official information sources.⁸

Given the growth in use and normalization of Facebook, evolving technological affordances, and overall importance of presidential elections to American politics, it is important to study emerging trends as part of a continuing effort to understand the impact of Facebook on young voters' political participation. This chapter does so by untangling complex and sometimes contradictory scholarship from the 2008 and 2012 elections and by reporting results of original research conducted in 2012. Findings from this original research are also compared to similar data collected in 2008, identifying trends in uses and effects across the two presidential elections that have taken place since the launch of Facebook and its integration into national politics.

YOUR TOP FRIENDS: WHY FOCUS ON PRESIDENTS AND YOUNG VOTERS?

Presidential elections occur every four years in the United States, affording a democratic opportunity for every eligible voter 18 years of age or older. Presidential campaigns have long been used to understand how mass media affect our communication about and engagement in politics.⁹

In addition to serving as an opportunity to explore nationwide political variables, presidential elections also afford a particularly unique chance to explore the behaviors of *young voters*—typically those aged 18 to 24—who, ineligible to vote in the previous presidential election and not likely to participate in midterm elections,¹⁰ are casting their votes on the national stage for the first time. Without established individual voting behaviors

and habits, college students have long-represented a population of interest in politics as an impressionable and predictively valid population.¹¹ Yet this population has become increasingly difficult to research, as American young adults increasingly disinvest themselves of politics.¹² However, recent presidential elections have seen an uptick in young voter turnout, with about 45 percent and 38 percent of eligible young adults voting in the 2008 and 2012 elections, respectively,¹³ up from the barely 30 percent turnout in both the prior 1996 and 2000 elections. Thus, the 2008 and 2012 elections provide a glimpse of young voters' political communication and attitudes to further assess the effects of the integration of tools like Facebook into politics.

IN PROFILE: SOCIAL MEDIA AND ELECTIONS

Carr and Hayes¹⁴ defined *social media* as “internet-based, disentrained, and persistent channels of masspersonal communication facilitating perceptions of interactions among users, deriving value primarily from user-generated content.”¹⁵ Social media are distinct from, but superordinate to, SNSs, which are web-based services that allow individuals to develop a (semi-) public profile, connect with others, and allow others to view those social connections,¹⁶ and represent one of the largest segments of social media.¹⁷ SNSs were initially heralded as an antidote to the growing apathy of voters in America, particularly young voters,¹⁸ as their technical and social infrastructures enable publically accessible interactions that span social and geographic boundaries.

Brundidge's¹⁹ *inadvertency thesis* posits the weakened social boundaries of SNSs, and limited ability of SNS users to selectively filter their exposure leads individuals to inadvertently encounter disparate political opinions while online. As apolitical spaces, SNSs have the potential to facilitate exposure to more diverse political exchanges than politically themed spaces, as users are less likely to segment and silo themselves.²⁰ Some research has generally supported the inadvertency thesis, indicating that SNS users are typically exposed to diverse political viewpoints,²¹ though evidence is emerging that, as they become savvier, users are learning to manage and limit their exposure to dissonant viewpoints.²²

Though social media had been used in prior elections, particularly the 2006 midterm congressional elections,²³ the 2008 presidential elections and their primaries represented the first foray of politicians into social media on a national scale. As SNSs' abilities to facilitate interaction and engagement with and among constituents affected how the campaigns were managed,²⁴ social media use—particularly of the most dominant, Facebook—in presidential elections presents an opportunity to probe and understand how emerging media tools are affecting not only political communication but also politics and voter engagement as a whole.

Comparing outcomes and effects, evidenced in scholarship, between 2008 and 2012 will provide a comprehensive overview of findings across elections, demonstrating the trends and evolution of effects of this emergent medium.

A STATUS UPDATE OF THE EFFECTS OF FACEBOOK ON PRESIDENTIAL ELECTIONS

2008

The 2008 presidential election and campaign cycle were a watershed of integrating emergent, online media as candidates sought to communicate with and engage new audiences—particularly young voters. Researchers—particularly in political science, sociology, and communication—quickly moved to investigate how nascent social media, especially Facebook, were affecting the political process. With studies still being published eight years and nearly two election cycles later, findings from the 2008 election are inexplicably mixed, and the effects of Facebook on the 2008 presidential elections remain unclear.

Political Exposure

Brundidge's²⁵ inadvertency thesis received some initial support in 2008, with studies revealing Facebook use led to increased exposure to diverse political messages, different from a user's own political viewpoint.²⁶ Yet, other studies indicated the discourse taking place on Facebook in 2008 did not reflect the expected melting pot of disparate ideas, comprised of civil discussion typically segmented into (and dominated by) homophilous political groups.²⁷ It was perhaps due to the novelty of the 2008 election,²⁸ but support for the inadvertency thesis and exposure to diverse political views from 2008 was mixed. Beyond exposure to discrepant political messages, Facebook appears to have also had ill-defined and unreliable effects on other political variables, including behavioral, knowledge, and attitudinal.

Political Participation

Some research concluded young voters' use of Facebook in 2008 was positively correlated with their political participation and expression.²⁹ However, other research found young voters' use of Facebook had little to no effect on their online and offline political participation.³⁰ Even more perplexing are findings that provided contradictory results, indicating active Facebook use was positively related to *civic* participation but not *political* participation.³¹ In the 2008 presidential primary, Baumgartner and Morris³² found no increased political participation from exposure to

political activity on Facebook. However, one stable finding that emerged regarding political participation and Facebook use in the 2008 election was the positive correlation of online and offline political participation,³³ though the directionality of the online-offline relationship remained unclear.

Other Political Variables

Beyond exposure to and participation in politics and commensurate communication, the rapid ascent of Facebook leading to the 2008 election led scholars to explore the relationship between Facebook use and additional political variables, both cognitive and attitudinal, although findings were nearly as mixed as those for political exposure and activity. While two general surveys found no relationship between Facebook use and *political knowledge*,³⁴ a similar survey of college students³⁵ demonstrated a positive correlation between the same. Survey results indicated Facebook use was positively related to *political interest*,³⁶ but focus groups suggested interaction with political content on Facebook was unrelated to *political interest*.³⁷ Facebook use was positively related to political *apathy* and *cynicism*,³⁸ unless Facebook use was instead negatively related to political cynicism.³⁹ Results were similarly conflicted regarding the effect of Facebook use and political *self-efficacy*, indicating a positive relationship,⁴⁰ a negative relationship,⁴¹ and no relationship⁴² between the two variables.

Some findings were at least not inconsistent, though perhaps because they were only explored in one study and thus did not have the opportunity of a dissenting data set. Yamamoto and Kushin⁴³ identified a negative relationship between Facebook use and political *skepticism*. Attention to Facebook and other social media appeared to be unrelated to political *involvement*.

*Summarizing 2008*⁴⁴

So what does the research regarding Facebook in the 2008 election tell us? To quote Vitak et al.,⁴⁵ "It's complicated." The sheer number of inconsistent results either make the 2008 election a dream or a nightmare for a meta-analysis. Either way, the current data surely make for a complex interpretation of the role of Facebook and political communication within social media during the 2008 election. The diverse results, often evidencing contrary relationships among the same variables, suggest that the 2008 election really was a time of acculturation for Facebook use, as voters and politicians alike struggled to both understand a relatively new channel and integrate that channel into one of the oldest political processes in the United States. The novelty of Facebook in politics was reflected in voters' attitudes, as they generally deemed political activity inappropriate

on Facebook in 2008.⁴⁶ The mixed reception of Facebook as an acceptable political tool likely impacted the nature of Facebook's role in the 2008 election, stymieing strong, consistent results. Despite mixed results for electorate participation, Cogburn and Espinoza-Vasquez⁴⁷ argued that it was through the ability to mobilize via web tools such as Facebook that candidate Obama was able to win the election in 2008. The interaction facilitated by Facebook-like tools increased fund-raising opportunities while also broadening the campaign's ability to mobilize previously disenfranchised individuals who were ready to be politically active. The results the Obama campaign saw from their digital efforts, and likely the positive press that the candidate received as a result, solidified Facebook as a valuable asset for future presidential campaigns.

2012

Despite weak evidence from the scholarly community of their effectiveness, the 2012 presidential candidates made extensive use of social media, especially Facebook, for mobilization, fund-raising, and issue awareness; so much so that, compared to prior elections, adoption of Facebook reached a late-adoption stage in a diffusion of innovation curve for all national campaigns, not just presidential. Candidates, whether in primaries, congressional races, or the presidential race, not present on Facebook were minimal, and they tended to be incumbents in noncompetitive races.⁴⁸ In addition, the previously reported adoption gap between Democrats and Republicans was closing to the point of irrelevance.⁴⁹ Facebook and digital campaigning were now embedded in the fabric of American politics as additional platforms, such as Instagram, Twitter, and the proprietary organizing platform My.BarackObama.com, were added. Nonetheless, as in the 2008 campaigns, presidential campaigns in the 2012 election utilized Facebook extensively to communicate with and energize voters, particularly those newly eligible to vote,⁵⁰ and this brought continued interest from researchers. However, researchers in 2012 sought not just to replicate 2008 studies, revisiting the complex relationships among political, social, and technical variables, but also asked new questions and addressed whether the role of social media in the lives of young voters had changed as SNS platforms evolved in the years since the 2008 election.

Political Exposure

The use of Facebook as a means of exposure to alternate political views by accessing heterophilous networks in the 2012 election provided more consistent results but counter to the inadvertency thesis. Facebook groups, formal and stable associations of individuals within Facebook around particular issues, were increasingly adopted following the 2008

elections⁵¹ and serve as walled gardens enabling isolated intragroup communication while minimizing opportunities for exposure to discrepant or dissonant views. Even when not interacting in groups, general Facebook activity reflected political silos, with surveys revealing Facebook use is positively correlated to exposure to consonant political messages but unrelated to selective avoidance of dissonant political views,⁵² suggesting users are clustering both communicatively and socially based on homophilous political attitudes. System analyses bore out this pattern, identifying tight clusters of politically similar messages within Facebook and other social media.⁵³ Unlike data from the 2008 election, data regarding exposure to heterophilous political communication via Facebook in the 2012 elections were relatively internally consistent, albeit counter to the inadvertency thesis, with clusters of politically homogenous networks common, enabled partially by the use of available SNS tools, such as groups and the ability to limit particular voices.

One reason for the increased homogeneity of general Facebook networks may be that users, weary of an overpoliticized social network environment, were actively managing their networks and political communication in 2012. Leading up to the 2012 elections, young adult users noted that they sought to avoid disagreement on Facebook, particularly regarding political issues.⁵⁴ Exploring how Facebook users managed their identities and networks on Facebook leading up to the 2012 elections, Hayes, Smock, and Carr⁵⁵ found many users reported utilizing system features to minimize their exposure to and disclosure of political content across political boundaries. By defriending or hiding Facebook connections, users managed their identities and networks to create political echo chambers, interacting with politically homophilous others while avoiding the potential cognitive dissonance of exposure to or debate with politically heterophilous network connections. In effect, while the inadvertency thesis states that selective exposure limitations and weakened social boundaries online will lead to people encountering political difference, even if it is only inadvertently, Facebook users in 2012 were actively employing system tools to manage and, to a degree, limit exposure to those different viewpoints.

Political Participation

Likewise, results regarding the effect of Facebook use and political participation were more consistent during the 2012 election, generally supporting increased online political activity but without strong offline effects. As more candidates used Facebook pages to interact with voters masspersonally, panel data indicated political participation increased alongside interacting with candidates' pages.⁵⁶ However, while such interaction could influence users' attributions of a candidate,⁵⁷ survey

results indicated the actual voting behaviors of politically minded young voters were not affected.⁵⁸ Experimental results further supported this relationship, noting the use of Facebook to directly connect with candidates by Liking⁵⁹ their pages was not related to increased political engagement offline.⁶⁰ A notable exception to this theme is Zhang et al.'s⁶¹ finding that Facebook use was positively correlated with both offline and online political participation. However, findings from the 2012 election generally supported the positive relationship between Facebook use and *online* political participation but rejected the relationship between Facebook use and *offline* political participation, suggesting an impermeable online-offline barrier of political activity.

Other Political Variables

The stabilization of Facebook use's relationship with political exposure and political participation has thus far been the focus of published research regarding the 2012 election; but surely data regarding Facebook use's relationships with additional variables is still forthcoming albeit diluted among the research emphasizing Twitter in the 2012 cycle. Of extant and available findings, a few relationships are worth noting. First, political advertisements were common and targeted during the 2012 election, and young voters took note of their presence but revealed they only felt influenced by ads in limited ways and only if they found its message desirable.⁶² The second finding of interest was the effects of channel choice. Consistent with Vitak et al.,⁶³ Zhang et al.⁶⁴ found a positive correlation between Facebook use and *political interest*. However, Zhang et al.⁶⁵ further noted that the relationship surprisingly did not hold for Twitter and YouTube use, suggesting not all social media may be used similarly or have equitable effects in politics.

Summarizing 2012

Research regarding the 2012 election is still emerging, but the extant results suggest the continued integration of Facebook into the political landscape remains complicated. Candidates in 2012 increased their presence in social media and their use of tools like Facebook to inform and interact with young voters.⁶⁶ However, data generally refuted some of the optimism scholars initially showed for the promise of social media as tools of democratization and for reinvigorating disenfranchised youth.⁶⁷ Though findings regarding the effects of this integration remain complicated and complex, they do suggest some normalization of use and outcomes. This normalization raises a different question though: What caused the different results between 2008 and 2012 that resulted in discrepant findings: differences in research methods and samples across

studies, or differences in the media environment and users between 2008 and 2012?

A More Formal Comparison

As social media use and norms continue to normalize,⁶⁸ do the findings of 2008 stand the test of time or are they a result of a historical moment—the novelty of social media integrated in a historic presidential election? Given the four years of social and technological evolution and stabilization between the Obama-McCain and Obama-Romney elections, the 2012 election may reflect a stabilization of the use of social media in presidential elections and warrant not only continued study but also comparison against 2008.

The comparison of findings from disparate studies of the 2008 and 2012 presidential elections and Facebook use is not as straightforward as it may seem. Merely comparing broad, descriptive national voter data (i.e., such as those typically reported by the national news, U.S. Census bureau, or Pew data) may be misleading, as such national samples fall victim to the challenges previously mentioned. This same challenge makes meta-analyses or other *post hoc* comparisons problematic as well. One potentially effective means of making sense of young voters' Facebook use and political effects during presidential elections would be to utilize a trend study.

Trend studies are a type of longitudinal analysis utilizing data collected at regular intervals from an immutable population to establish when changes in variables occur⁶⁹ and have recently demonstrated high utility in understanding the evolution and stability of social media use in political communication.⁷⁰ Unlike panel studies, trend studies rely on new respondents from the same population at each time point to study change at the aggregate, rather than individual, level and thus may be more robust against history effects. As Facebook has existed for two presidential elections, trend analysis can now be used to study emerging trends in political Facebook use. Taking into account the problematic nature of meta-analysis using existing data from disparate sources and the somewhat contradictory results in the extant scholarship concerning Facebook use in presidential elections, the following new study uses trend analysis to compare data collected in 2008 to data collected in 2012 from the same population.

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Guiding Research Questions

Given the complex findings from presidential elections from both 2008 and 2012—particularly during 2008—we sought to explore the

relationships among Facebook use and online and offline political activities to enable direct comparisons between the 2008 and 2012 elections. To address this, we posed several research questions. First, we sought to replicate data collection and extend findings from the 2008 election within the same population, thus providing a comprehensive understanding of how young voters used Facebook in the 2012 election, their attitudes regarding its appropriateness for political activity, and the mutual relationships between online and offline political activity, and then to allow comparison to 2008 data, establishing trends. We therefore asked:

- RQ1: In what political activities on Facebook do college students engage during the 2012 presidential elections?
- RQ2: Among college students in 2012, does (a) political activity on Facebook influence political participation offline and (b) political activity offline influence political activity on Facebook?
- RQ3: Do college students perceive Facebook as an appropriate venue for political activity?

After assessing these initial relationships for 2012, we further sought to make direct comparisons with available data from the 2008 election. As trend analyses allow analysis of changes in effects within a population over time, our final research question sought to directly contrast the specific effects identified in 2008 to data from the subsequent 2012 election. Thus:

- RQ4: How have relationships between Facebook use, online political engagement, and offline political engagement among college students changed between 2008 and 2012?

Method

The present research utilized trend analysis to examine the state of young voters' Facebook use, effects on political engagement, attitudes, and activities, as well as to identify changes in the four years since the previous presidential election. Data for the present study were collected immediately before the 2012 election and compared against similar data from the same population collected immediately before the 2008 election⁷¹ provided by the original authors. Given the consistency of timing, population, and measures, this method enables direct comparisons of findings.

Participants

During the last two weeks of October 2012, a random sample of 2,000 undergraduate students was obtained from the registrar's office of two midsized midwestern universities from a total population of 28,882.

University e-mail addresses were used to invite students to participate in an online survey. Respondents were entered into a raffle for 1 of 10 gift cards for a popular retailer. A total N of 167 respondents (an 8.35% response rate), typically female (74.3%) Euro-Americans (85%), ranged from 18 to 57 ($M = 21.43$, $SD = 4.44$) years of age. All respondents had a Facebook account (100%) and most were registered voters (73.5%).

Measures

Several established scales—particularly those used in the study of the 2008 election—were used to assess variables of interest. Ellison, Steinfield, and Lampe's⁷² 8-item *Facebook Intensity* (FBI) scale assessed respondents' Facebook use and included items such as, "Facebook has become part of my daily routine," $\alpha = 0.87$. *Political knowledge* was measured using Pasek, more, and Romer's⁷³ 5-item index, including the item, "How much of a majority is required for the U.S. Senate and House to override a presidential veto," and could be answered either correctly or incorrectly, $KR-20 = 0.43$.⁷⁴ *Political self-efficacy* was measured using Verba, Schlozman, and Brady's⁷⁵ 4-item scale, including the item, "How much influence do you think someone like you can have over local government decisions," $\alpha = 0.78$. *Political interest* was measured using Verba et al.'s⁷⁶ 5-item scale, including the item, "I am interested in political issues," $\alpha = 0.74$. *Political participation* was measured with Vitak et al.'s⁷⁷ adapted 12-item index, which included political activities such as watching a debate on television or online and signing an offline or online petition. Values range from 0 to 12 with higher values indicating respondent participation in more activities. *Facebook political participation* was measured using Vitak et al.'s⁷⁸ 14-item index of personal SNS use to engage in various political activities or observation of social networks doing the same, such as a post mentioning politics or becoming a "fan" of a political page. Finally, *appropriateness of using Facebook for political purposes* was measured using Hayes et al.'s⁷⁹ 5-item, 5-point Likert-type scale, including items such as "Facebook is an appropriate place for people to express their politics," $\alpha = 0.73$.

Nonresponse Bias Tests

To address possible nonresponse bias, we followed Bose's⁸⁰ recommendation to conduct an analysis to identify possible sources of bias between survey respondents and nonrespondents. Given sampling frames were randomly selected from the population and unavailable to the researchers, the demographic characteristics of the sample most likely to vary were compared to available information from the population ($N = 28,882$): gender and age. Compared to the population, as indicated in Table 3.1, our sample was slightly older ($M_{\text{age}} = 21.43$, $SD_{\text{age}} = 4.44$) than the population