NEWS MEDIA AND PRESIDENTIAL AGENDAS IN TWITTER AND HOW THEY

RELATE TO PUBLIC PRIORITES

by

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THESIS ABSTRACT

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    This study explores the extent to which news media agendas relate to each other
in a microblogging environment, how the Obama administration's agenda relates to them
in this realm, and how these agendas align with the public's list of top policy issues in the
real world. A content analysis of more than 4,600 tweets from six accounts in 2013 were
ranked and compared to a list of 20 public policy priorities. Findings support previous
research that found a significant relationship among traditional media agendas in print.
Measures of association between news media and administration agendas show some
consistency and some discrepancy. This study did not find as significant a correlation
between news media and administration agendas and the public's list of top priorities.
These findings suggest a substantial disconnect in Twitter between news coverage and
federal-level political leadership focus in relation to the issues that matter most to citizens
of the United States.

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I dedicate this research to my friend Tab Wurster.

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Retweet if you agree: We must do more to respond to the threat of #climate change.
—Barack Obama @BarackObama

These tweets from *The New York Times* and U.S. President Barack Obama illustrate

one of the more recent ways that news organizations and political administrations use

social media to broadcast information. Twitter may seem an unlikely place to engage the

public, but active membership has grown to such a degree—an impressive 500 million

worldwide since Twitter's inception in 2006—that most media organizations and

politicians have opened accounts in an effort to reach this growing audience.

The advent of social media has challenged the gatekeeping role of mass media by

allowing anyone to "go public" through social networks. Political groups, for example,

now post what they feel is most relevant to multiple online platforms in an effort to

present ideas directly to anyone who will read them.

Twitter is an online social networking website and microblogging service that allows

users to post and read text-based messages of up to 140 characters, known as "tweets." In

little more than a decade, Twitter has become one of the top 10 most visited Internet sites.

Recent statistics from Twitter show that 43% of its members use their cell phones to read

and send out tweets, making this one of the quickest venues for direct contact with voters

and their networks. The average number of tweets per day is 58 million, about 135,000

new members join each day, and 40% don't tweet, but watch what others tweet.

Although creators of social media platforms did not originally conceive of their

networking tools for political or mass media use, government administrations and news outlets have readily adopted them. Government officials from across the globe have embraced Twitter's short messaging platform. Reuters recently reported that 80% of world leaders are on Twitter, including such diverse leadership as the Soviet Union's Vladimir Putin, Argentine President Christina Fernandez de Kirchner, and Indonesian President Susilo Bambang Yudhoyono (a recent Twitter user who skyrocketed to the number 2 spot for most followers behind Obama) (PR Newswire, 2014).

Mass media appear to be aware of these statistics and understand that broadcasting the news requires them to meet the public where they are—checking Twitter alerts on their cell phones. A quick search online shows that the top 10 U.S. newspapers, from *The Wall Street Journal* to the *Chicago Tribune*, post to Twitter multiple times per day. The newspapers primarily post headlines that link to full articles. Some offer Twitter feeds tailored to specific interests, such as business news or sports, but all offer a main news feed. This general feed has the most followers. At the onset of this study, the author performed a quick count and found that the top 10 newspapers had a combined audience of more than 15.5 million followers on Twitter (see Appendix). This is an impressive readership, but Obama has a following of more than 40 million at this writing**.** This calls into question the function of agenda-setting—traditionally the domain of the mass media—and invites the question: Who sets the news agenda now that the media landscape has changed?

In light of these statistics, Twitter becomes increasingly important in what Lasswell (1948) described as the communication process of human society. The millions of followers and thousands of tweets posted by newspapers and the Obama administration

are evidence of this phenomenon. Politicians who use social media perform many of the same media functions as traditional members of Lasswell's communication stream. This media task is "the correlation of the parts of the society in responding to its environment."

McCombs and Shaw's (1972) heavily cited Chapel Hill study compared the focus of attention by the news media on key public issues, such as aspects of political communication, with the public's focus of attention. The study found evidence that suggests the transfer of salience from news media to the public. This foundational study strongly suggests an agenda-setting function by mass media. Voters tend to share the media's composite definition of what is important. As Lang and Lang (1966) observed, mass media force attention to certain issues. They are constantly presenting public issues suggesting what individuals in the mass should think about, know about, and have feelings about. And, as noted by Cohen (1963), the press "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about."

Social Media in Politics

The success of the 2008 Obama campaign is notable in part because of how effectively it leveraged a variety of Web 2.0 tools, such as Facebook, YouTube, and Twitter (Miller, 2008). The campaign raised $91 million in the first two months of 2008 alone, most of it in small amounts over the Internet. Obama's camp also used social media as no campaign had before to organize volunteers, inform voters, counter negative campaign ads, and generate voter support (Miller, 2008).

U.S. politicians today use new media to interact with the public as a matter of course.

Now in its second term, the Obama administration uses networking tools (primarily

Facebook, Twitter, YouTube, and blogging) regularly to circumvent traditional news

outlets and communicate directly with the public. Recent presidential campaigns have

shown how effectively they can use social networking to reinforce the salience of issues,

fundraise, organize volunteers, and check the pulse of the electorate. Within a week of

the 2012 election, Obama had posted more than 7,500 tweets to a following of nearly 22

million on Twitter—and the public was listening. According to Twitter.com, there were

more than 10 million tweets on the evening of the first presidential debate of 2012,

making it the most tweeted-about event in U.S. political history (Mashable.com, 2012).

With the advent of the Internet, members of the public have many new opportunities

to seek their own interests. Because of this, some have suggested that the Internet is

shifting the power of agenda-setting away from mass media. Surveys show that both

Democratic and Republican supporters are more active in politics because of social

networking tools (Pew Research Center, 2008). However, the five largest U.S

newspapers account for 21.5% of circulation among the top 100 dailies across the

country, and the top 5 newspaper websites account for 41.4% of the total links found on

the Internet that trace back to the top 100 newspapers (Hamilton, 2004). This suggests

that attention on the Web is even more concentrated than in the print world. Has the

Internet shifted the power of agenda-setting away from mass media, or have new Web-

based tools, such as Twitter, strengthened its hold?

The purpose of this research is to compare the agenda of major media outlets (two

major newspapers and a public broadcasting network) and the Obama administration on

issues the public identifies as most relevant. When Shaw & McCombs (1972) conducted

their study, the mainstream news media were the dominant source of campaign news. Given the fragmentation of the media today and the advent of the read-write Web, that position has eroded. This suggests that agenda-setting may have less of an effect than before, or it has shifted along with the expanding media landscape.

This study uses Twitter as a gauge for agenda-setting in part because of the proliferation of cell phone use in the United States. According to a 2013 survey conducted by the Pew Research Internet Project, nearly two-thirds of adult cell phone users (63%) now use their phone to go online. If this survey had included cell users under age 18, the proportion would likely be much higher. Because 91% of all Americans now own a cell phone, this means that 57% of U.S. adults are cell Internet users. The proportion of adult cell owners who use their phone to go online has doubled since 2009 (Pew, 2013).

In reference to Twitter's 140-character limit, the organization that created the social networking tool says that it designed its text-messaging platform with mobility in mind. According to a recent study by Twitter, 60% of its 200 million active users log in by mobile devices at least once every month to read, write, and share tweets (Twitter, 2013).

A similar Pew study found that a core function of Twitter is passing along pieces of information as a story develops (Pew, 2013b), suggesting that the agenda-setting effect of Twitter could be exponential as members comment or retweet about a trending issue to their network of followers. These studies and statistics suggest that Twitter could be an ideal 21th century site for measures of agenda-setting. If so, do the media and the Obama administration reflect similar agendas in tweets? How do they compare to the public's agenda?

CHAPTER II

LITERATURE REVIEW

Lasswell (1948) provided a conceptual framework for the functionalist sociology of the media with his formula "Who says what in which channel to whom with what effect?" If presidential administrations set the agenda through microblogging, they would fit within this framework and, at least theoretically, be able to perform media tasks. Lasswell's concept of official communication consists of three functions:

1. Surveillance of the environment
2. Correlation of components of society
3. Transmission of the cultural heritage

Examples of the traditional actors within these three respective groups include diplomats and foreign correspondents; editors, journalists, and speakers; and educators in families and schools. Of primary focus here is the middle group of this communication stream: editors, journalists, and speakers. This elite group performs a number of tasks that correlate the parts of society (McQuail, 2005, pp. 97-98). These tasks include:

1. Explaining, interpreting, and commenting
2. Providing support for established authority and norms
3. Socializing
4. Coordinating activities
5. Consensus building
6. Setting orders of priority and signaling relative status

Media that serve Lasswell's sixth function above—setting orders and signaling relative status—take part in the creation of what the public thinks is important. This suggests that news outlets could use social media to influence the salience of topics

within the public's agenda. If media outlets or presidential administrations were to address an issue frequently and prominently on Twitter, voters who use Twitter might regard the issue as more important. If politicians who use social media have the potential to perform many of the same media functions as traditional members of the middle group in Lasswell's communication stream, do they perform them?

Agenda-Setting

In 1922, Walter Lippmann penned a chapter in *Public Opinion* titled "The World Outside and the Pictures in Our Heads." Lippmann argued that the news media determined our mental image of the larger world of public affairs—events that we do not directly experience. The images are incomplete and distorted, yet we come to regard them as true. Not until 1968 did Maxwell McCombs and Donald Shaw, professors of journalism at the University of North Carolina, Chapel Hill, conduct the seminal study that led to the genesis of agenda-setting. Their Chapel Hill study produced a nearly perfect correspondence (.967) between mass media reports on issues by political parties in a presidential race and public salience of those issues. This meant that the degree of importance voters gave to five issues—foreign policy, law and order, fiscal policy, public welfare, and civil rights—paralleled the degree of prominence of these issues in the news during the previous month. As the authors summarized, "The media appear to have exerted a considerable impact on voters' judgments of what they considered the major issues of the campaign."

One could argue that with the popularity of the Internet, agenda-setting is becoming irrelevant. Because the Web routinely exposes the public to a much wider diversity of agendas, mass media now have less agenda-setting effect than ever. This argument hinges

on the assumption that there is a large, fragmented Internet audience and that media agendas are highly dissimilar. As mentioned above, more than 41% of the links found on the Internet trace back to the top five U.S. newspapers (Hamilton, 2004). This suggests that the redundancy among news outlets could be higher than the findings of the Chapel Hill study if there is a strong correlation in topics among news outlets. As McCombs (2005) notes, the norms of professional journalism are a powerful influence on content, and he said that it would not be surprising to find that online sites maintained by various types of news organizations present agendas that largely match the agendas of traditional news media. Many of the popular news sites on the Internet are the online versions of newspapers, magazines, television networks, and cable TV news channels. In this environment, "the business buzzword 'synergy' frequently means amortizing the costs and increasing the profits of news by distributing the same basic content through numerous channels" (McCombs, 2005).

The Chapel Hill study found a median correlation of +0.71 among the nine news media agendas that were voters' dominant sources of news and information. Those news sources, which included newspapers, magazines, and network television stations, had quite similar agendas. When comparing just the newspapers in this study, researchers found that similarity in agenda was even higher (+0.90). Yu (2005) compared three different pairs of news sources (the *New York Times* and the *Washington Post*, CNN and MSNBC, and Yahoo and Google News) and found correlations ranged from +0.51 to +0.94 on the opening pages of their respective websites. This level of homogeneity of the mass media on the Web suggests great potential to influence what the public thinks about.

Agenda Melding

New studies have posited that to understand agenda-setting, researchers must consider how the public "melds" the agenda of multiple media sources together to form a prioritized list of the most important issues (Vargo, Guo, McCombs, & Shaw, 2014). The theory of agenda melding is that distinct audiences, such as Democrats or Republicans, value issues and attributes differently. The result is that "each of these audiences melds agendas from various media into a comfortable, but different, mix of issues and attributes (Shaw, McCombs, Tran, & McKeever, 2010).

Vargo, et al. (2014) conducted an agenda-melding study that used large datasets from Twitter during the 2012 presidential election to demonstrate that distinct groups of media can predict Republican or Democrat agendas. The study used the terms "vertical" and "horizontal" (Shaw & Weaver, 2014) to describe how news flows through audiences, and it used the terms as categories for news sources across the media landscape. Vertical media, such as mainstream newspapers and nightly news networks, are those that transfer information down to a mass audience. Horizontal media are niche outlets that include bloggers, talk show hosts, and celebrities. Horizontal flow is observed when audiences turn to sources closer to their own social status, demographics, interests, and preferences (Weimann, 1991). The study found that vertical media could best explain Obama supporters' agendas while horizontal sources of news (niche media) better aligned with Romney supporters' agendas (Vargo, Guo, McCombs, & Shaw, 2014).

It should be stressed that the media are not the only influences on the public's priority of issues. Communication with family, friends, and coworkers shapes people's opinions on many issues. Also, where the greatest influence comes from varies depending

on the issue (Stacks & Salwen, 2010). Zucker (1978) illustrated this by making a distinction between issues that were obtrusive or unobtrusive. Obtrusive issues, such as unemployment or inflation, are things that people experience in their daily lives. Unobtrusive issues, such as terrorism or the federal budget deficit, are things that people typically encounter only through the news. Zucker (1978) found that the less obtrusive an issue, the more individuals will rely on the news media for information about it and the stronger the agenda-setting effects can be. In other words, media were less likely to set the public agenda on issues that the public experienced themselves (the obtrusive issues).

Stacks and Salwen (2010) cite the failure of the media in setting the agenda and causing a sway in public opinion during the Clinton-Lewinsky sex scandal, despite intensive news coverage that has been described as "All Monica, all the time." This speaks to the limits of media influence. The majority of Americans perceived the sexual scandal as irrelevant to Clinton's role as a president. As Stacks and Salwen (2010) put it, this should not come as a surprise because agenda-setting does not nullify the basic assumption of democracy—the populace at large has sufficient wisdom to determine the course of their nation, their state, and their local communities.

Politics on the Internet

Although politicians have had websites for some time, the use of Web 2.0 tools in politics is a relatively recent development. Politicians have had a presence online since the early 1990s, but their websites were little more than digital yard signs (Casey, 1996). The 1992 Clinton campaign was the first to use the Internet extensively, although it was limited to email and a listserv (Communicator-in-Chief, 2010). Clinton's inauguration coincided with the launch of the first White House website, adding a new dimension to

presidential communication and information sharing. Because the World Wide Web was primarily read-only at that time, Web applications were limited in terms of interactivity and scope of content (Owen & Davis, 2008).

The advent of the read/write Web and its emergence in politics took place during George W. Bush's terms in office, which began in 2001. MySpace emerged in 2003, Facebook in 2004, and YouTube and Twitter in 2006. These Web 2.0 applications began to create cultures of participation through online communities, social networks, and content-sharing sites (O'Reilly, 2005), and these offered many intriguing possibilities for presidential communication. For example, administrations could easily get messages out on their own terms by giving supporters the opportunity to pass along information through social networks (Wilson, 2011).

When Bush took office in 2001, the utility of the Web was apparent, but politicians had yet to thoroughly integrate it into their public relations strategy. By 2002, politicians used the Internet to maintain media relations, seek information about opposing candidates, recruit and mobilize volunteers, and raise funds. Voters used political websites to access past voting records and get information about candidates' positions on issues (Cornfield & Rainie, 2003).

Because of setup costs and staffing needs, campaigns with the most funding—typically those at the top of the ticket—have pioneered the use of digital tools for political purposes. As the first chief executives in the new media era, both Clinton and George W. Bush are noted as trailblazers in the adoption of digital communication for governing. However, with no established methods, their efforts were a combination of cautious trial and error (Owen & Davis, 2008).

For example, Bush was the first U.S. president to open a Twitter account as part of a White House website redesign in 2007. The administration used Twitter to give the public a running account of the president's daily activities. It also offered information about the president's travels, addresses, speeches, letters, and nominations. The Bush White House did not use Twitter to share personalized messages or link to blog entries (All, 2008).

The 2008 presidential race was the first time politicians used Web 2.0 tools extensively and with great effect. This was also a seminal time when new media technologies and the Internet challenged traditional media, such as radio, television, and newspapers (Hendricks & Denton, 2010). Many attribute Obama's successful bid for the White House in part to his savvy Internet campaign. The Obama website organized more than 150,000 events, created more than 35,000 groups, collected 1.5 million accounts, and raised more than $600 million from three million donors (Communicator-in-Chief, 2010).

Internet use in the 2008 election marked a shift in campaign strategy (Nagourney, 2008) that led to greater integration of social media in 2012 by both the Democratic and Republican frontrunners. The 2012 presidential campaigns broke records in fundraising and volunteer recruitment online. As both the Obama and Mitt Romney campaigns looked for new ways to reach voters, both camps harnessed social networking tools in creative ways to draw voters in and create a personal, more human image of their candidates. Obama, for example, used Twitter to tweet out his campaign's Spotify song list, which included popular artists such as U2, Aretha Franklin, No Doubt, and Earth, Wind and Fire.

While studies show that politicians have successfully used web-based tools for fundraising and volunteer organization, little research focuses on other ways they have used these new tools to set agendas successfully. Also, no studies compare the use of Twitter by news organizations and politicians.

As mentioned above, presidential campaigns are particularly important because they set trends in campaign strategy that politicians down the ticket tend to follow. Twitter is among the social networking tools that politicians in higher office have adopted before their colleagues in lower posts (Owen & Davis, 2008) have done so. As of this study, no fewer than 86 members of the U.S. Senate have official Twitter accounts, and 10 use private or campaign accounts. Former presidential candidate John McCain was the Senate's top tweeter in 2011 (Wilson, 2011).

Nearly one in 10 U.S. adults gets news through Twitter (Pew, 2013b). Twitter news consumers stand out for being younger and more educated than both the population overall and Facebook news consumers. Close to half (45%) of Twitter news consumers are 18-29 years old, and 40% have at least a bachelor's degree compared with 29% of the total population with an advanced degree. However, 52% are between the ages of 30-49. Twitter news consumers divide equally by sex (50/50) and they distribute relatively evenly by race, with 57% white and 43% non-white (Pew, 2013b).

One could argue that Twitter posts simply reflect an issue, such as income disparity, crime, or global warming, and that this brief mention does not have the same agenda-setting effect as a 2,000-word newspaper article on the same topic might have. In fact, Twitter posts from major media organizations are typically the full headline used in an organization's primary publication with a link to the full story. In terms of agenda-setting

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effects, headline tweets and newspaper headlines are essentially identical.

This study contributes to the field of research that seeks to understand how the use of microblogging fits into agenda-setting. The researcher uses content analysis to categorize, count, and rank tweets generated by two major newspaper outlets, National Public Radio, and three accounts affiliated with the Obama administration, and then compares the data to a Pew Research Center survey that ranks the most relevant policy issues among the public. This quantitative analysis systematically identifies the primary focus of these messages based on explicit coding. Here are the questions this study will answer:

RQ1: Are news media organizations' Twitter agendas the same or different from one other and from those posted by the Obama administration?

RQ2: Do these agendas align with the public's perception of the most important issues?

CHAPTER III

METHOD

This study uses categories developed by the Pew Research Center for the People & the Press as a basis for content-analyzing Twitter posts. The Pew annually conducts this survey to rank the U.S. public's top policy priorities. Respondents rate a list of 20 priorities the Pew has identified as most relevant from previous research, polls, and data it has established over time (see Table 1). The organization conducted the survey used here (its 13th annual) from January 15–19, 2014, among 1,504 adults. This study used the Pew survey because it is more representative of the public than a survey limited to Twitter users would be.

Table 1

Public's Ranked Domestic Policy Priorities

1. Economy	11. Poor & Needy
2. Jobs	12. Environment
3. Terrorism	13. Energy
4. Education	14. U.S. Military
5. Social Security	15. Lobbying
6. Budget	16. Immigration
7. Medicare	17. Moral Breakdown
8. Health Care	18. Infrastructure
9. Taxes	19. Global Warming
10. Crime	20. Global Trade

List from Pew Research Center for the People & the Press (2014).

The researcher operationalized these 20 priorities as categories and used them in a

content analysis of media and Obama administration Twitter accounts. This study coded

all 20 categories because Pew (2014) suggests that they represent the top issues that

resonate with the public. Two coders categorized more than 4,500 tweets and ranked

them by frequency for comparison with the ranked priorities identified by the Pew

survey. The survey also ranked top policy priorities among Republican, Democrat, and

Independent survey participants, which this study uses for additional comparative

analysis.

The researcher took subsamples of tweets from each Twitter account and used them

in preliminary rounds of categorization to establish intercoder reliability. Each tweet

served as a unit of analysis, with the goal of an intercoder reliability of at least 0.7. The

subsample totaled 212 posts drawn from all accounts during the second constructed week

in 2013. The intercoder reliability test resulted in .77 reliability using the Holsti method.

Preliminary coding resulted in minor revisions to category definitions. Coding tests

confirmed the need for an "Other" category for posts that did not fit into one of the 20

topics outlined in Table 1. Examples of tweets that fell into the Other category included

posts about sports, obituaries, cooking, movie and book reviews, and tweets about foreign

wars or political revolutions where the U.S. military was not involved.

Both the media and presidential content analyses involved coding tweets and placing

them into categories for each account. Once frequency distributions were known for each

account, the researcher put the distributions in ranked order.

Sample

This study explores twitter feeds from three major news outlets: *The New York*

Times, The Washington Post, and NPR News. The newspaper outlets were selected

because of their circulation sizes and the variety of content they publish and because they have an influence on the national news agenda. They serve as sources of news that many other outlets look to in making their own programming and editorial decisions (McCombs, 2005; Pew, 2014). In addition, the selected newspapers have two of the largest Twitter followings among the top 10 daily newspapers in the U.S. At 11.7 million, the *NYT* has far and away the most Twitter followers among newspapers, cable networks (such as CNN and Fox News), and network broadcasting outlets (such as CNBC or MSNBC). *The Washington Post* has the third-largest Twitter following among major newspapers at 2.7 million behind the *The Wall Street Journal* (4.3 million). After preliminary sampling, this study did not include the *WSJ* because its Twitter feed leaned heavily toward financial news. *NYT* and *The Washington Post* tweeted a greater variety of news that fell within the 20 Pew categories.

This study chose to sample NPR News because it posts about a variety of domestic news, it tends to post less sports and celebrity news than CNN, for example, and it tends to be less conservative or liberal in its coverage compared to organizations such as Fox News or MSNBC (Bercovici, 2011). NPR also has a comparable Twitter following (2.4 million) in relation to other news outlets, such as Fox News (3.8 million), MSNBC (598,000), and CBS News (3 million).

This content analysis is based on a sample from one year's worth of tweets in 2013. The one-year boundary was chosen to align with Pew's annual survey of the public domestic agenda and to better correlate with issues that may be timebound. Pew's original list of categories (2002) has remained relatively consistent since the inception of the survey. The survey did add categories midway (2007), which included reforming the

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nation's tax system, reducing the influence of lobbyists, dealing with immigration, improving infrastructure, and dealing with global warming.

Riffe, Aust, & Lacy (1993) found that constructed week sampling is more efficient than simple random or consecutive day sampling. They found that for a population of six months of newspaper editions, one constructed week was efficient. Based on this logic, collecting a representative sample from a year's worth of tweets requires at least two constructed weeks.

One potential problem with using two constructed weeks is that some organizations post significantly fewer tweets per day than others. For example, a quick survey conducted by the author found that NPR posts 25 to 50 tweets per day, but Obama may post nothing on a given day (see Table 2). For this reason, this study sampled tweets from three Obama administration accounts and combined them (@BarackObama, @WhiteHouse, and @PressSec) to ensure that a large sample would be collected. Also, the tweet ranges (see Table 2) are somewhat high estimates because an organization's tweets do not always correspond to the specific policy issues that count in this study. Obama, for example, often tweeted words of encouragement, such as "Together we can achieve anything," which does not fit into one of Pew's categories. Tweets about celebrity news, music reviews, and sports events were common and did not qualify for this study because they fell into the Other category. To address these issues, four constructed weeks were used to generate enough relevant data.

Constructed week sampling assumes cyclic variation of content for different days of the week and requires that all the different days of the week be represented. The researcher used a random calendar date generator (www.random.org/calendar-dates) to

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select one week of days from each quarter of the year, resulting in a sample of 28 days spread across 2013. One could argue that tweets don't necessarily follow the cyclical pattern, but the amount of newspaper coverage per day does. Because most tweets reference or link to news coverage, it is appropriate to use the constructed week approach. Although NPR may have a different cyclical pattern than newspapers, this study used the same sampling method for consistency.

One could also argue that a Twitter feed is only roughly representative of a news outlet's agenda because news organizations do not post a tweet for every story in a given edition. Previous content analyses have limited sampling to a newspaper's Page A1 or the first 30 minutes of a TV news program for practical and other reasons. Coding the interior pages of a newspaper or an entire TV program would be an enormous amount of work for relatively minimal gain (Pew, 2014). The decision to code a newspaper's front page or the first 30 minutes of a news program exclusively has to do with the focus of a study, for example, news prominence. In such a case, the assumption is that news organizations make the decision to feature what they deem to be the top stories first. By comparison, this study, which also seeks to measure what organizations emphasize, is more holistic because it samples and codes everything posted in a given day rather than limiting the study to articles on a front page or the first 30 minutes of a news program.

Table 2

Administration and Media Presence on Twitter

News outlet	Username	Total tweets	Followers	Tweets/day
Obama	@barackobama	11K	42 million	0–15
White House	@whitehouse	14K	4.7 million	5–20
Press Secretary	@presssec	2,500	492K	0–8
NPR News	@nprnews	65K	2.3 million	25–50
Washington Post	@washingtonpost	102K	2.6 million	50–60
NYT	@nytimes	128K	11 million	40–75

Note: The total tweets column represents all posts since the user opened the account. Tweets/day data are estimated ranges that do not include retweets.

Statistical Analysis

After coding news media and administration posts, this study ranked the data by frequency to determine measures of association between each account. This allowed for comparisons between the public's ranked agenda from the Pew survey and ranked tweets from *The New York Times*, NPR News, *The Washington Post*, and the Obama administration.

This study uses Kendall's tau b rank correlation analyses using SPSS software to determine relationships between the ranked agendas of each organization and the public's list of top domestic policy priorities. Kendall's tau was used because it is a rank-order correlation that takes ties into account, which occurred in the rankings.

The researcher also combined ranked accounts for further correlation analyses. The *NYT,* NPR, and *The Washington Post* were combined into a "media combined" group for

comparison with the three administration accounts combined (@BarackObama, @WhiteHouse, and @PressSec).

The researcher also performed Chi-square tests on the media/administration combinations for the top five categories by frequency (Economy, Terrorism, Health Care, Moral Breakdown, and Crime) and then collapsed the 20 Pew categories into four general categories for additional Chi-square analysis between the media and the administration accounts combined (see Table 3). These analyses provide more information about the differences and similarities between agendas than rank-order correlations provide.

Table 3

Pew Categories Collapsed

1. Economics	Budget Deficit, Taxes, Jobs, Economy, Trade
2. Social issues	Poor & Needy, Crime, Immigration, Lobbying, Moral Breakdown
3. Entitlements	Medicare, Health Care, Social Security, Education, Infrastructure
4. Global issues	Terrorism, Global Warming, Energy, Environment, U.S. Military

CHAPTER IV

RESULTS

Four constructed weeks generated a total sample of 4,669 posts. Of that total, 2,032 fell into the Other category (Category 21), yielding 2,637 tweets (or 56.5% of the total sample) that fit the Pew survey categories (Figure 1). The *NYT* posted the most tweets that fell within the survey's categories (918 tweets). *The Washington Post* yielded 810 tweets and NPR had 526 tweets that fit Pew categories. The combined Obama administration accounts produced 383 posts that fit operational definitions.

Of the Pew survey's 20 categories, five emerged as highly tweeted when all Twitter accounts in this study were combined. Economy, Terrorism, Health Care, Crime, and Moral Breakdown were the most tweeted categories overall. Medicare, Social Security, and Taxes were the least tweeted categories. In terms of absolute numbers, the administration accounts for more than half of all posts on global warming (15 of 23), half of all posts in the Global Trade category (13 of 26), and nearly half of all posts on immigration (51 of 104).
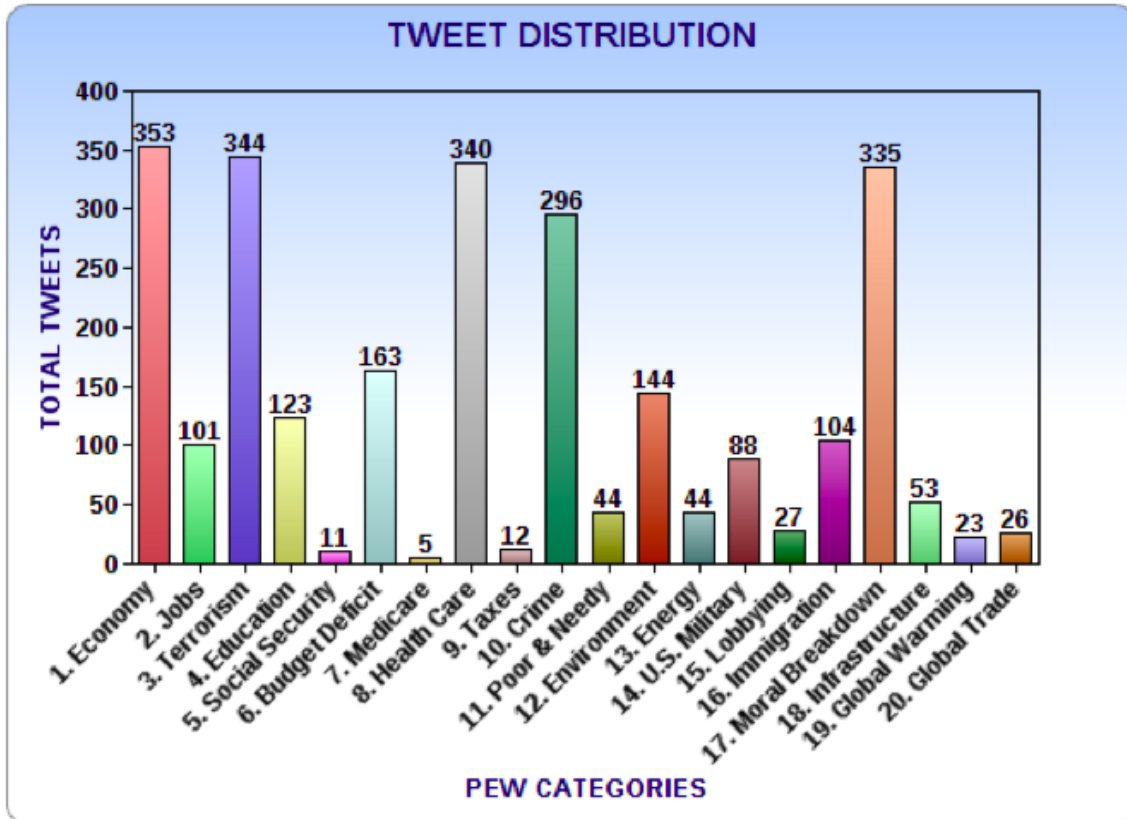
Figure 1. Tweet distribution of all Twitter accounts combined (N = 2,637).

Tweet distribution of the media alone shows the same five categories emerging as most tweeted. Health Care remained in the top five, but moved from the third-most-tweeted topic to the fifth. Medicare was the least tweeted category, behind Global Warming, Social Security and Taxes.

The Washington Post tweeted twice as many times about the budget deficit as the other media organizations combined (71 of 123) and accounted for nearly half of all posts in the Poor & Needy category (19 of 42). NPR accounted for all posts about Medicare and it had a relatively even share of posts about the environment despite having posted fewer tweets overall (see Figure 2).
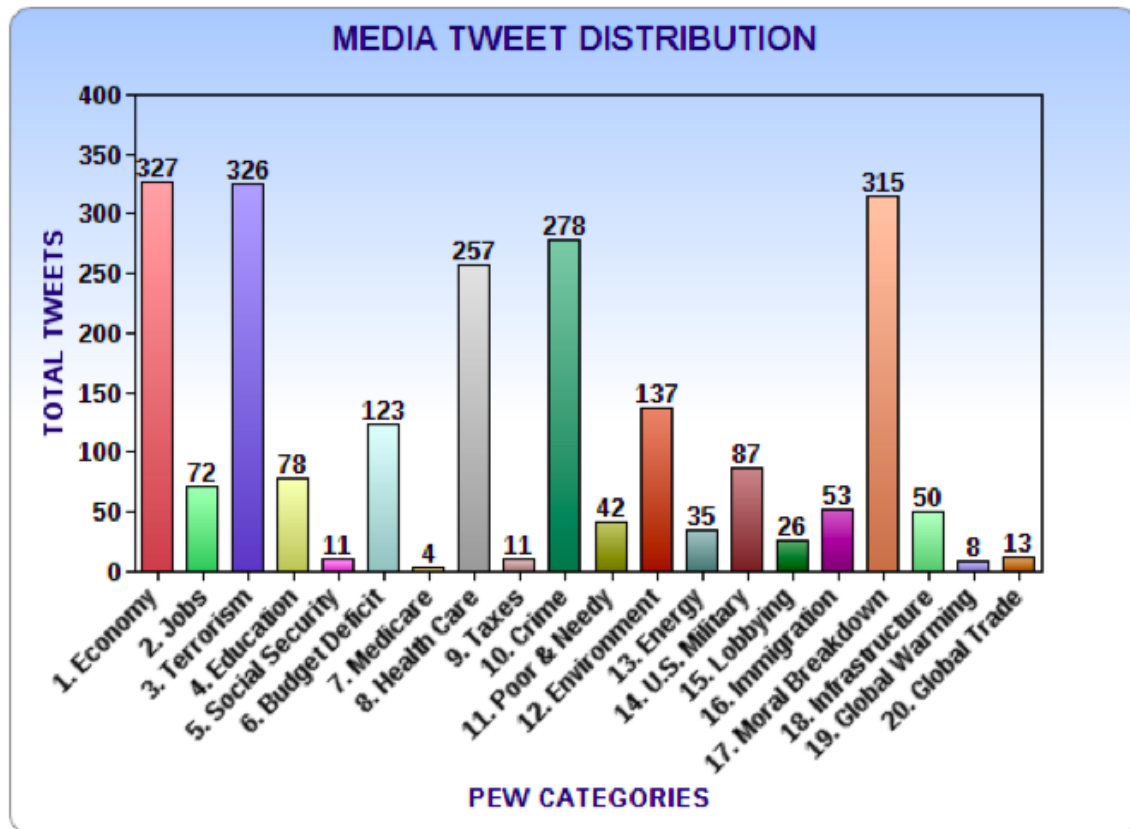
Figure 2. Media tweets combined and distributed by frequency (N = 1,971).

Health Care was the Obama administration's most tweeted category (83 posts), followed by Immigration (51), Education (45), Budget Deficit (40), and Jobs (29). The administration posted no tweets about Social Security and just once each about Medicare, taxes, the U.S. military, and lobbying (see Figure 3).
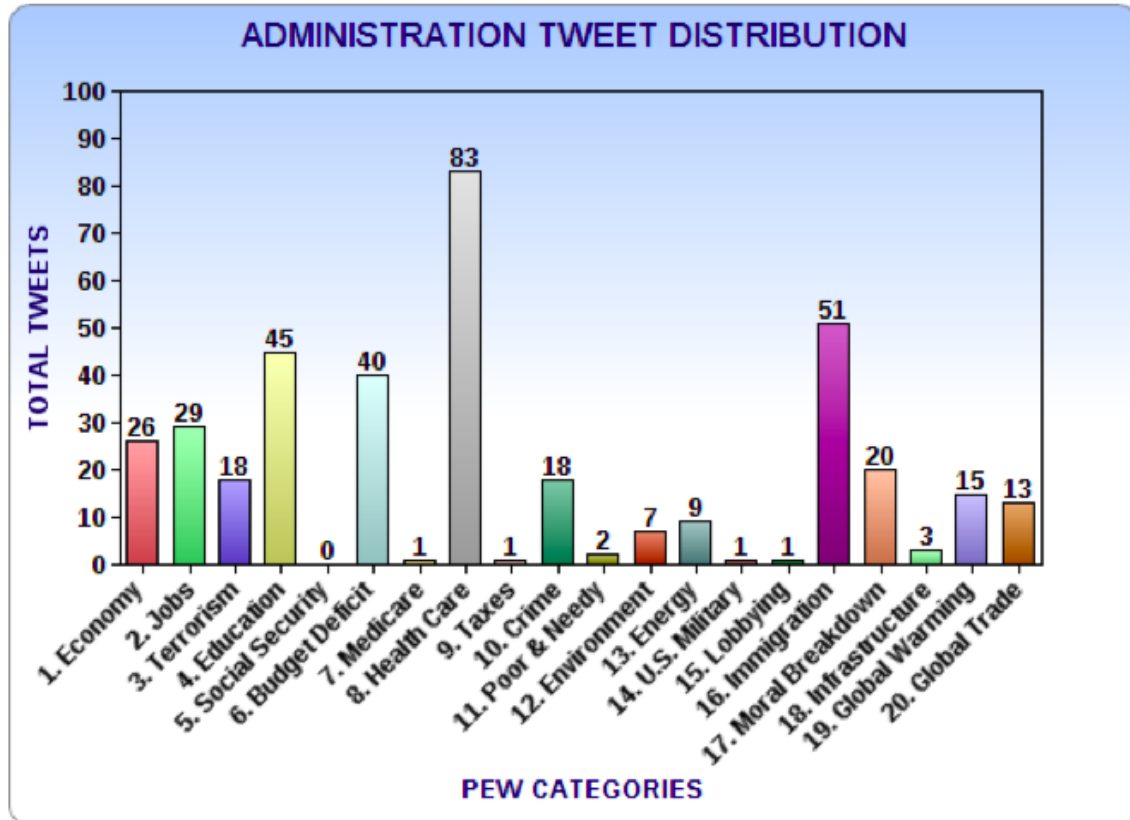
Figure 3. Distribution of Obama administration tweets (N = 383).

A nonparametric correlation between ranks of administration tweets and the combined media tweets was r=.398, p=.016. As mentioned above, Kendall's tau was used for all correlations in this study because of the existence of tied ranks.

Correlations between ranked tweets by media outlets were stronger, and they were roughly the same (r=.720 to .780, p<.001). The Obama administration's ranked agenda correlated more closely with the *NYT* than with NPR and the *Washington Post*, though all were significant (see Table 4).

Table 4

Correlations (Kendall's tau b) Between Ranks of Administration and Media Tweets

	1	2	3	4
(1) Administration		R=.423, p=.011	.372, p=.024	.452, p=.006*
(2) NPR			.770, p<.001*	.720, p<.001*
(3) Washington Post				.780, p<.001*
(4) NYT				–

*Note: N=20. *Correlation is significant at the .01 level (2-tailed).*

Nonparametric correlations between ranked tweets from the media outlets and the administration with Pew's ranked categories found little in the way of a relationship. NPR's correlation with Pew rankings was almost significant (p=.051). The administration's measure of association with the Pew ranking was the least significant (p=.536).

The Pew survey also ranked categories based on political affiliation: Republican, Democrat, and independent. This study correlated these three additional ranked orders with the media and administration rankings to explore relationships with specific political groups. Table 5 shows that NPR had the strongest relationship with all three political affiliations, including a significant correlation with independents (p=.034).

Table 5

Correlations (Kendall's tau b) Between Ranks by political affiliation

	Republicans	Democrats	Independents
Obama Administration	.102, p=.535	.130, p=.433	.118, p=.473
NPR	.310, p=.059	.295, p=.073	.347, p=.034*
Washington Post	.277, p=.091	.144, p=.380	.239, p=.144
NYT	.228, p=.162	.245, p=.135	.254, p=.119

*Note: N=20. *Correlation is significant at the .05 level (2-tailed).*

A Chi-square analysis was done to explore the difference between the administration tweets and the combined media tweets using the top five categories overall. The results (X^2=149.9, p<.001) indicate significant difference between the administration and the media. The main difference appears in the category of Health Care, which represented 50.3% of the administration tweets, but a range of 14.2% to 23.2% of the three media organizations' tweets. The administration tweeted least about terrorism and moral breakdown, posting nearly 50% less than the media on these topics (see Table 6).

Among news media, the *NYT* posted the most about economics (27.7%), *The Washington Post* led in crime coverage (26.2%), and NPR posted the most about health care (23.2%). The top five accounted for more than 63% (1,668) of the total sample that fell into categories 1-20 (2,637 total tweets).

Table 6

Cross Tabulation of Top 5 Categories

	Categories				
	(1) Economy	(2) Terrorism	(3) Health Care	(4) Moral Breakdown	(5) Crime
Admin	15.8% (26)	10.9% (18)	50.3% (83)	10.9% (18)	12.1% (20)
NPR	20.7% (74)	17.9% (64)	23.2% (83)	19.6% (70)	18.7% (67)
Wash Post	14.4% (70)	24.9% (121)	16.5% (80)	17.9% (87)	26.2% (127)
NYT	27.7% (183)	21.4% (141)	14.2% (94)	18.3% (121)	18.3% (121)

Note: N=1,668. Frequencies appear in parentheses.

This study also performed a Chi-square analysis after collapsing Pew's 20 categories into four general categories. The results (X^2=96.0, p<.001) indicate that the media and the administration focus on different groups of topics, but there is more consistency in tweeting within the collapsed categories than was found in cross tabulation of the top five

categories. For example, Table 7 shows relatively consistent posting by the media and the administration about economic and social issues. While the administration posted least about global issues (Terrorism, Global Warming, Energy, Environment, U.S. Military), news media posted relatively consistently about these topics. The biggest disparities are in the Entitlements category. The administration tweeted most about issues in this category (Medicare, Health Care, Social Security, Education, Infrastructure), and the media posted the least about them (see Table 7).

Table *7*

Cross Tabulation of Categories Collapsed

	Categories			
	Economics	Social Issues	Entitlements	Global Issues
Admin	28.5%	24.0%	34.5%	13.1%
NPR	22.4%	30.0%	21.7%	25.9%
Wash Post	22.0%	33.5%	15.3%	29.3%
NYT	27.3%	31.1%	17.7%	24.0%

Note: N=2,636.

CHAPTER V

DISCUSSION

One of the main goals of this study was to determine whether media and presidential agendas in Twitter are the same or different. While not all of the results were significant, they do provide evidence that agendas were similar among news media. Findings were mixed between media and administration agendas—some consistency, some discrepancy. This study also aimed to determine which of these agendas align better with the public's perception of the most important issues. Findings show that there is little relationship between the public's agenda and the media or the public and administration agendas.

The finding that news media share similar agendas on Twitter supports previous research that found mass media agendas in other landscapes, such as print and television broadcasting, were largely homogeneous. McCombs and Shaw (1972) found a median correlation of +0.71 among media outlets in their Chapel Hill study using Spearman's rho. The present study found a correlation of .72 to .78 using Kendall's tau.

Similarities between the agendas of the media and the administration were mixed. Cross tabulation of Pew categories collapsed (see tables 3 and 7) showed that the administration and the media generally focus on different groups of topics. Health care, however, ranked among the top five most frequently tweeted issues for both the media and the administration. More than 50% of the administration's posts focused on this issue, making it the top priority for the White House. While health care ranked fifth for media, news organizations posted significantly more about it than they did for the remaining 15 other topics—87% more than their sixth-ranked category, Budget Deficit.

This suggests that if the administration does influence the media in Twitter (or the

reverse), this influence may be limited to only a few key issues. While this study did not measure effects, additional research should explore agenda-setting relationships between media organizations and governing bodies. Based on the frequency of posts about health care by both the news media and the administration in this study, an agenda-setting effect may exit. As Baumgartner and Jones (1993) note, "Media attention sometimes precedes and sometimes follows changes in attention by government agencies. . . . Each can affect the other, reinforcing the pattern of positive feedback and punctuated equilibrium" (p. 125). In their model, media coverage is part of a system that influences and is influenced by public attention, elite focus, and policymaking commitment. Punctuated equilibrium, as Baumgartner and Jones (1993) define it, is a process in which "issue advocates," in this case Obama and his administration, seek to enlist the media as a key player in expanding the scope of a policy issue. The ultimate goal is to change policy by relying on the media to mobilize public interest and aid in transforming an issue from a private problem to a public problem (Wolfe, Jones, & Baumgartner, 2013). A study that measured health care tweets by the media across time, for example, before and after the Obama administration focused its attention on the Affordable Care Act, could provide valuable evidence of agenda-setting effects on media by government bodies

It should also be noted that media agendas on Twitter were found to align, at least to some degree, with the news agenda identified by the landmark Chapel Hill study mentioned earlier in this report. Both studies found that news outlets frequently offer economic and crime-related news (called fiscal policy and law and order in their study). Economy and Crime were among the top five most frequently tweeted categories in this study, which suggests that media agenda has remained at least to some extent consistent

across print, broadcast, and microblogging platforms.

Public Agendas

A significant difference between the findings of this study and the Chapel Hill study centers on the public agenda. McCombs and Shaw (1972) found evidence that mass media reports and public salience of issues resonated to a high degree. In the present study, economics and terrorism made the top three in both the media and the public's agendas, but distribution of the media's other 18 ranked issues were very different from the public's. At the time of the Chapel Hill study, a handful of organizations were the dominant sources of news. Today, there are a greater number of news outlets with the reach of traditional mass media, and many of these organizations appeal to neutral, conservative, or liberal audiences.

Politics and public agenda. One might argue that political polarization is a primary factor in shaping the public agenda, but this study found only trace evidence to support the argument. Political affiliation accounted marginally for associations between media and public agendas when correlating the media ranks and Pew's ranked orders for Republican, Democratic, and Independent party membership (see table 5).

Interestingly, this analysis found no significant relationship between Democrat and the Obama administration agendas. This finding could, however, be useful to future research that explores the relationship between agendas and public approval rates for a candidate over time. Pew (2014) reports that Obama's job approval rating declined from 79% in 2009 to 43% in 2014. Comparing the administration's agenda in Twitter across that time with public priorities could reveal valuable information about how or if these variables relate. It should be noted that this study intentionally excluded news media that

had a reputation for liberal or conservative coverage, and that including them might have produced stronger relationships between, for example, Republicans and conservative media or Democrats and liberal media.

Fragmentation of media. Media fragmentation may also have contributed to differences in the media and public agendas examined in this study. Audiences today have a greater number of news channels to choose from, and they have the freedom to combine or "meld" media as they choose. Research shows that audiences meld agenda from various media into a comfortable, but different, mix of issues and attributes (Shaw, McCombes, Tran, & McKeever, 2010).

As mentioned in an earlier chapter, a recent agenda-setting study sought to demonstrate a correlation between Democrat and Republican voters in relation to vertical and horizontal media. The findings showed that vertical media (traditional mass media) best predicted Obama supporters' agendas on Twitter whereas Romney supporters were best explained by Republican horizontal media (niche media) (Vargo, Guo, McCombs, Shaw, 2014). These findings are not consistent with the results of this study, which invites a review of traditional methods for measuring agenda-setting and how their results compare to results by studies that use emerging methods.

As we know, the bulk of agenda-setting studies use individual counts to measure the salience of media messages, and these measurements generally answer how often an issue was mentioned during a period. The new study referenced here used network agenda-setting (NAS), which attempts to go beyond the individual measurement of issue salience. The NAS model asserts that issues can be either implicitly or explicitly linked in the news coverage or the public's mind based on relationships between issues. The

assumption is that meanings can be constructed because of such links. For example, the agenda for a news organization is not just how it covers the issues, but how often issues are mentioned together during the same news period. This is the key to measuring relationships between different news items (Guo, 2013; Guo & McCombs, 2011).

The present study, which sampled Twitter data from vertical media exclusively, found no correlation with Republican or Democrat agendas. It did, however, find a relationship between Independents and NPR, which could have implications for future research. If agenda melding studies that use NAS were to include Independents as a distinct group, this could lead to valuable information about audiences that vote for candidates, measures, etc., without regard to the endorsement or position taken by a specific party.

Need for orientation. As mentioned earlier, the news media is not the only source of orientation to public affairs. Weak relationships between media and public agendas could also be related to traditional media's use of Twitter and what Weaver (1980) calls the public's need for orientation. An individual's need for orientation in regard to public affairs is defined by an issue's relevance to one's life and by a person's level of uncertainty about an issue. Individuals who feel a topic is of high relevance and who also feel a high degree of uncertainty about it have a high need for information. Members of this group are said to be avid news consumers, and according to the theory, are strongly affected by agenda-setting (Stacks & Salwen, 2010). However, in this study, the public ranked several issues, such as jobs (2nd overall) and education (4th), as highly relevant. In comparison, the media emphasized these issues significantly less on their Twitter feeds, suggesting that public agenda is being constructed elsewhere.

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This theory may explain some of the disconnect between media and public agendas found in this study. For example, terrorism (generally unobtrusive) ranked high among both agendas and is most likely experienced by the public through the media only. Moral breakdown, on the other hand, ranked high among the news media, but near the bottom of the list (17th) for the public. The tweets in this category had to do with obtrusive domestic issues, such as gay marriage, abortion, and recreational drug use. If the theory holds, the media and public rank moral breakdown differently because the media have less agenda-setting effect in regard to these types of issues.

Global mass communication. The lack of similarity this study found between media agendas and the public's list of domestic priorities may be related to the internationalization of media ownership. As we have seen, the pace of internationalization among media has accelerated because of advances in technology and economic incentives. These conditions have led to a flurry of media convergence in recent years, both transnationally and with multimedia, creating a world media industry dominated by a small number of large media firms (McQuail, 2005, p. 249). As global media firms absorb smaller news organizations, media networks tend to become similar across the globe. As a result, audiences in different countries see much of the same or very similar news and entertainment offerings produced outside of their country.

While international news and entertainment is not new, decisions to broadcast foreign news tend to ramp up in relation to financial considerations. As regional news organizations look to cut costs and maximize profits, economic imperatives provide the impetus to offer content about the world that has been purchased rather than collected. This alleviates pressures to fill news holes or broadcast time with local content created by

local news teams.

While the Pew categories used in this analysis did not ask respondents to rank the importance of international events, such as foreign wars or revolutions, the news media analyzed in this study tweeted consistently across the sample about world events. Tweets about South African violence, the plight of Syrian refugees, and the Russia-Chechnya conflict serve as a few examples. Posts about general world news were also common. Examples include tweets about the health condition, eventual death, and legacy of former Venezuelan President Hugo Chavez, air quality in China, and the financial crisis in Cyprus. These posts fell into the Other category in this study, but remain a fertile ground for future studies that seek to understand the relationship between domestic and global events that resonate both nationally and internationally.

Twitter and political strategy. As Rogers and Dearing (1996) note, it is not the absolute significance of an issue that counts but the relative strength of forces and people trying to define and promote an issue. Politicians traditionally make the news because anything they do is essentially newsworthy. Outside the news media, public officials represent the most prominent force in agenda-setting, and the president is arguably the nation's top agenda setter (Venezuela & McCombs, 2010). If Obama visits a school and reads a children's book to second graders, it makes the news. Based on this, one might assume that such power of celebrity would translate to the social Web. While Twitter is among a plethora of online tools that offer high-ranking politicians new channels of exposure outside traditionally mediated terms, the effectiveness of socially mediated tools is not absolute. As noted in a previous chapter, political campaigns have had great success using social media for fund raising and organizing followers. This acknowledged,

the tools have been relatively less effective in political efforts to change public opinion about policy issues, cancel opposing messages, or change the ritual character of campaigning as portrayed in the traditional media.

As Graber (1976b) describes it, the triumph of media logic over political logic can be seen in the treatment of elections as more of a horse race than opportunities for learning about issues and policies. This has been described as a tendency among media to concentrate on strategic news, where the ups and downs of a campaign become the news, not the substance of the policy proposals and arguments.

Of course, this has not deterred campaigns from efforts to change public opinion with social media, but positive results may be rare based on the findings of this study. As noted, health care was a top agenda item for Obama in 2013. Health care was also a top agenda issue among the news media, which may indicate an agenda-building event by an elite political group despite a growing centrality of mass media. That noted, the majority of issues emphasized by the Obama administration, which included immigration, education, and the budget deficit, received significantly less attention by the news media overall. While it is impossible to measure the effectiveness of a campaign's strategy in terms of impact on news media, there is support, at least in theory, that independent sources of news (such as the mainstream media analyzed in this study) are characterized by credibility and a lack of propagandist associations. This stands as a stabilizing factor in the reputation of traditional media.

Limitations

There are three important limitations to the present study that may have influenced findings. At any given moment, there are dozens of issues contending for public

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attention, but no society and its institutions can attend to more than a few issues at a time (Valenzuela & McCombs, 2010). The coding process of this study revealed that Twitter is susceptible to this limitation. While this study did sample tweets across all of 2013, unique events occurred and these events often dominated Twitter feeds on specific days. For example, the U.S. government shutdown in 2013 led to many tweets about sequestration. The Boston bombing set off a flurry of posts related to acts of terrorism. Each of these events dominated media and administration activity in Twitter within specific timeframes, which could have affected the ranking of some categories.

Some caution is required when interpreting the findings of this study, because they do not compare tweets to tweets. The results of a survey conducted outside Twitter was used to represent the public for practical and other reasons. First, the amount of information Twitter users generate each day alone is enormous and beyond the resources of this study. Some estimate that users produce 9,100 tweets per second. Data of this magnitude is difficult to collect, manage, and interpret. Only recently have polling firms and online research and analytics companies started working with Twitter to create tools designed to mine this data and make sense of it. Twitter's new political index, Twindex, for example, monitors hundreds of millions of Twitter messages in search of opinions and views about political figures. Designed in partnership with Topsy, the makers of the sampling tool this study used to collect tweet data, Twindex seeks to measure political sentiment by using advanced semantic analysis software to determine if someone is in support of a candidate or not. Developers say Twindex is not meant to replace traditional polls, but the goal is to provide a real-time view of the nation's feelings about candidates as they appear in the news (Bilton, 2012). Until these tools are fully developed, tested,

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and readily available to researchers, the public survey is the best way to gauge public opinion.

The second reason this study used a Pew survey instead of a public Twitter survey is because Twitter, at least for the moment, is less representative of the general population. Demographic information referenced earlier in this report shows that users have distinct characteristics, such as age. Twitter users tend to be younger, and traditional news media consumers tend to be older. If Twitter membership continues to grow and access to advanced analytic tools becomes available, a ranked order of public priorities in Twitter would be more generalizable.

A third factor that may have influenced the results of this study is the number of coded categories. The sheer number of categories may have diluted rather than distilled agendas, because some of the Pew categories were related (e.g., Medicare and Health Care). Categories were collapsed to account for this, but collapsed groups were limited to the Pew's survey topics.

Despite this, some useful generalizations can be made from the data in the Other category. For example, the sheer frequency of Other posts offer some gauge for understanding what media outlets consider to be valued content. More than a third of all sampled tweets (43.5%) were *not* about domestic policy issues. Many focused on subjects such as sports, entertainment news, the arts, music, cooking, holiday activities, and other topics of leisure and recreation. This sheds some light on the level of importance news outlets place on stories that have entertainment value compared to those with straight news value. The sample collected for this study suggest that media organizations place a significant value on entertainment news within the Twittersphere.

CHAPTER VI

CONCLUSION

This study aimed to document the extent to which news media agendas relate to one another in a microblogging environment, how the Obama administration's agenda relates to them in this realm, and how these agendas align with the public's list of top policy issues in the real world. The results of this study support previous research that found a significant relationship among traditional media agendas. Findings affirm that significant relationships among agendas in the print and radio world have traversed the bridge to social networking environments. However, this study did not find as significant a correlation between news media agendas and the administration agenda in relation to the public's list of top priorities. In fact, nearly a third of this study's Twitter sample had nothing to do with the public's list of domestic priorities. After filtering out this data (the 2,000+ tweets that fell into the Other category), correlations of the media and administration's agenda with the public's list of concerns were weak.

These findings suggests a substantial disconnect between U.S. news media coverage and federal-level political leadership focus in relation to the issues that matter most to citizens of the United States. There are many possibilities for the cause in Twitter. It could be related to the unique ways that organizations use social media, when they use it, sudden events, or it could be related to something that is unique to Twitter.

As mentioned earlier, the first presidential debate of 2012 was the most tweeted event in U.S. history (Mashable.com, 2012), and perhaps as a result, research about the political use of social media tends to focus on elections (Miller, 2008). This study attempted to gauge the use of microblogging in the middle of a second presidential term,

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which also raises interesting questions about the effective use of social media across a politician's tenure. Does effective political use of social media correlate more with the attention a presidential race receives, or should success be attributed to a campaign's effective use of social media? How did the Obama administration's successes with social media during the 2012 election change over time? What factors change an administration's agenda-setting effects? Answers to these questions could have substantial effect on social media research and campaign strategy.

While attribute agenda-setting or framing was not studied here, the coding process during this research suggested that Twitter is a fertile ground for other levels of agenda-setting research—particularly in regard to political use. This post by Press Secretary Jay Carney is one of numerous posts by the Obama administration that communicate more to the public than basic information about congressional work:

"This week GOP leaders say they are ditching immigration & tax reform to focus on throwing 3m [three million] young people off their parents' insurance."

In addition, coders noticed that administration accounts tended to post erratically. For example, within the 28-day sample in this study, the press secretary posted nothing on 10 of those days. By comparison, news media posted to Twitter more consistently across the sample. While coders noted some cyclic variation of content for different days of the week, media posted regularly overall. What does this mean in terms of agenda-setting in the Twittersphere?

As discussed earlier, Twitter offers the potential to carry out at least some of the media tasks outlined in Lasswell's conceptual framework for communication, such as the "correlation of the parts of the society in responding to its environment." However, a

pivotal factor for performing this media task may relate handily to consistent tweeting

(which this study did not observe when coding administration tweets) and issue focus.

APPENDIX A

TOP 10 U.S. NEWSPAPERS BY CIRCULATION AND TWITTER

FOLLOWING

Newspaper	Circulation	Following
The Wall Street Journal	2,378,827	4.42 million
The New York Times	1,865,318	11.7 million
USA Today	1,674,306	1.07 million
Los Angeles Times	653,868	858K
New York Daily News	516,165	213K
New York Post	500,521	595K
The Washington Post	474,767	2.75 million
Chicago Sun-Times	470,548	109K
The Denver Post	416,676	114K
Chicago Tribune	414,930	201K

Data from the Alliance for Audited Media (March 2013). The author collected Twitter following data in May 2014.

TWITTER POST CODE SHEET INSTRUCTIONS

This coding sheet provides category definitions and basic guidelines for coding Twitter posts in this study.

Read each tweet and assign the appropriate category number (see below) next to the post. Please give each tweet no more than a single code. If a tweet appears to fit two categories, code the the tweet by main thrust of the story/post. If you are unsure how to categorize a post, click any links in the tweets for more information.

RT stands for retweet. Do not code retweets unless the original tweet came from the same organization. For example, when coding @nprnews, code retweets from @nprpolitics and @MarkMemmottNPR because they are affiliated with NPR.

If a tweet is vague, consider any hashtags included in the tweet, such as #climate or #immigration. Also consider references to other Twitter accounts, such as @TheDreamIsNow relates to immigration and @OFA (Organizing for Action) relates to health care.

Be aware that tweets often use "text speak," a type of shorthand to accommodate for the 140 character limit. For example, ICYMI stands for "In case you missed it." "cmpn fin" stands for campaign finance. If you don't know what an acronym represents, perform a quick search online for the definition.

Please limit coding to tweets in English.

Below are the 20 categories with specific details about each topic.

1. **Economy:** Any tweet about gross national product (GNP) and gross domestic product (GDP), business/company expansions/closures, stock market, investing, marketplace.

2. **Jobs:** Tweets about job security, unemployment rates, jobs added/reduced, wages, furloughs, unions.

3. **Terrorism:** News related to national security, news about domestic and global security, NSA, but **not** stories about foreign wars or revolutions (Category 21).

4. **Education:** K-12 and higher ed news - funding, student assessment, teacher evaluation, student loans, education costs.

5. **Social Security:** Posts that specifically mention social security or retirement**.**

6. **Budget Deficit:** Government expenditure, shortfalls, debt, sequester.

7. **Medicare:** Tweets that specifically mention Medicare, Medicaid.

8. **Heath Care:** Costs, coverage, longevity, obesity, general health stories, policy, Obama Care, @OFA, health science, pharmaceuticals.

9. **Taxes:** IRS; city, county, state and federal tax rates; policy

10. **Crime:** Any post about an act of crime, crime rates, gun control, corruption, but **not** terrorism (Category 3).

11. **Poor & Needy:** Social services, general posts about poor, food stamp and welfare programs, homeless, disaster relief.

12. **Environment:** Impact, mitigation, including acts of nature, but **not** global warming (Category 20).

13. **Energy:** Oil, gasoline, natural gas, clean energy, costs, shortages, policy, consumption.

14. **U.S. Military:** Deployments, costs, casualties, funding, policy.

15. **Lobbying:** Regulation, deregulation, public agency in policy making, campaign finance reform.

16. **Immigration:** Border patrol, immigration reform, policy, @TheDreamIsNow.

17. **Moral Breakdown:** Hot button issues and topics, such as gay marriage, abortion, prayer in schools, recreational drug use, domestic abuse, sex trafficking, human rights violations, racial tensions, genetic engineering controversies (GMOs).

18. **Infrastructure:** Roads, bridges, public transit news, policy, conditions of, funding for improvement, costs.

19. **Global Warming:** Tweets specifically related to global warming – sea level rise, melting ice caps, greenhouse gases, carbon emissions.

20. **Global Trade:** Any post about global trade, trade relations, imports, exports, tariffs.

21. **Other:** Any tweet that doesn't fit in one of the other categories. Examples include sports, obits, fashion/style, book/music/movie reviews, features about food/holidays/recreation, and war/revolution abroad. **Please code sports as 21-1 and war/revolution as 21-2.**

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