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SCHOOL OF MEDIA
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PewResearchCenter

The Project for
Excellence in Journalism

How Mainstream Media Outlets Use Twitter

Content Analysis Shows an Evolving Relationship

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For nearly every news organization, Twitter has become a regular part of the daily news outreach. But there are questions about how those organizations actually use the technology: How often do they tweet? What kind of news do they distribute? To what extent is Twitter used as a new reporting tool or as a mechanism for gathering insights from followers?

To answer some of these questions, the Pew Research Center's Project for Excellence in Journalism and The George Washington University's School of Media and Public Affairs collaborated on a study of Twitter feeds from 13 major news organizations.¹

The research, which examined more than 3,600 tweets over the course of a week, reveals that these news organizations use Twitter in limited ways—primarily as an added means to disseminate their own material. Both the sharing of outside content and engagement with followers are rare. The news content posted, moreover, matches closely the news events given priority on the news organizations' legacy platforms.

Specifically:

- The news outlets studied varied widely in the number of Twitter feeds or channels offered and in how frequently they posted. On average, the news organizations offered 41 different organizational feeds. The Washington Post, at the top of the list, offered 98, more than twice the average. The Daily Caller, on the other hand, offered a single Twitter feed. The level of activity also ranged widely. While as a group the outlets in the sample averaged 33 tweets a day on their main organizational Twitter feed, that number ranged from close to 100 a day to fewer than 10.
- The news organizations were much more similar in the focus of their Twitter activity. The vast majority of the postings promoted the organizations' own work and sent users back to their websites. On the main news feeds studied, fully 93% of the postings over the course of the week offered a link to a news story on the organization's own website.
- News organizations were far less likely to use Twitter as a reporting tool or to curate or recommend information that originated elsewhere. Just 2% of the tweets from the main news feed analyzed were information-gathering in nature—seeking views or first-hand accounts from readers. And only 1% of tweets studied were “retweets” that were reposted from a Twitter feed outside the organization.

¹ The outlets studied come from the five main sectors of mainstream media—print, network TV, cable, online and radio. They were selected based on audience size and for their comparability with the broader sample in PEJ's sample of outlets used in the News Coverage Index. For each outlet, researchers analyzed separately the main organizational Twitter feeds, the feed of the most followed individual reporter at each outlet and, where they existed, the health reporter's Twitter feed.

- The news agenda these organizations promoted on Twitter closely matches that of their legacy platforms. A comparison of the top stories across these Twitter feeds and across the same mix of legacy outlets reveals four out of the top five news stories were the same on Twitter as in the legacy outlets. For the week studied, February 14-20, 2011, unrest in Middle East and the U.S. economy topped both lists.
- Individual reporters were not much more likely than the news institutions to use Twitter as a reporting tool or as a way to share information produced by those outside their own news organization. An examination of the Twitter feeds of 13 individual journalists—the most followed at each outlet studied—found that 3% of the tweets solicited information, a similar rate as the institutions overall. And 6% of their tweets were retweets of postings from outside entities (compared with 1% on the institutional Twitter feeds).
- Researchers also examined the Twitter feeds of one particular news beat—health reporters. These reporters made more use of the reportorial ability of Twitter, though they still produced far more tweets that disseminated their own material. On average, 6% of the health reporters’ postings over the course of the week studied solicited information. That is twice that of the most-followed journalists (3%).

This is not to say that news organizations are not tapping into public sentiment on Twitter through other means. News staff may well be reading, even sometimes doing so on air, the comments posted by their followers. And reporters may have their own list of Twitter feeds that they check regularly. Still, these findings reveal limited use of the institution’s public Twitter identity, one that generally takes less advantage of the interactive and reportorial nature of the Twitter.

This behavior resembles the early days of the web. Initially, news organizations, worried about losing audience, rarely linked to content outside their own web domain. Now, the idea is that being a service—of providing users with what they are looking for even if it comes from someone else—carries more weight. It bears watching whether Twitter use for mainstream news organizations evolves in this same way.

About the Study

Researchers examined the Twitter feeds of 13 major U.S. news sources at three levels, including the main feed representing the news outlet (like @washingtonpost) as well as the feeds of the individual journalists who had the largest number of Twitter followers. (The main Twitter feeds of the outlets studied were, in most cases, among the top followed of each outlet and among most productive. The cable outlets were the main exceptions.) In addition, researchers wanted to see how journalists with a specialty beat might use the social networking tool, and thus health reporters at each outlet were examined. (The health beat was one of the most consistent beat across these news sites—11 of the organizations have a specified health reporter with a Twitter feed.) In all, then, 37 different Twitter feeds were studied. Researchers examined every Twitter post, or tweet, in these feeds over the course of one week—chosen because it resembled a typical news week, as opposed to one absorbed with a major breaking news event. A total of 3,646 tweets were examined from the week of February 14-20, 2011 (2,969 main organizational tweets and 677 journalist tweets.) In addition, that content was compared with 972 stories found on the original platforms of those news outlets from the same week.

Among those who contributed to the study were, from The George Washington University's School of Media and Public Affairs, Dr. Kimberly Gross and Rachel Weisel. At PEJ, that included Amy Mitchell, Jesse Holcomb and Laura Santhanam.

More information about the study and a complete list of contributors can be found in the methodology section of this report.

Who Tweets and How Often

The online social networking and messaging service Twitter (also referred to as a micro-blogging tool) was launched on July 15, 2006. By 2011, it was reported to have around 200 million global users.² And as of June 2011, 13% of online Americans reported using Twitter, according to data from the Pew Internet & American Life Project, up from sharply from 8% in November 2010.³

The confines of the tool, not unlike text messaging (SMS or Short Message Service), are its most distinguishing feature. Individual “tweets” are limited to 140 characters, truncating what any one individual, organization, institution or brand can communicate in a single post. Anyone can

² Shiels, Maggie. “Twitter co-founder Jack Dorsey rejoins company,” BBC. March 28, 2011.

³ Smith, Aaron. “Twitter Update 2011,” Pew Internet & American Life Project. June 1, 2011.

search and find Twitter feeds that might interest them either by searching by name, by topic or by “hashtags,” a designated topic code that users can assign to a topic or event.⁴ Users can also choose to “follow” a Twitter feed, which means they receive all of the posts from that outlet or individual. In the news context, this allows users to curate their own news. If a user “retweets” the post (essentially placing someone else’s post in their own Twitter feed), the ultimate reach of the original post can potentially multiply many times over.

Among the outlets that were studied, Twitter activity varied widely.

One way they differed was in the overall number of separate organizational Twitter feeds or channels offered.⁵ On average, the outlets studied offered 41 organizational Twitter feeds, ranging from the general—such as politics—to the narrow—such as Civil War or cycling. The Washington Post offered the largest number of separate feeds, at 98. The Daily Caller, a conservative web-only news operation led by former cable personality Tucker Carlson, offered the fewest, a single feed.⁶

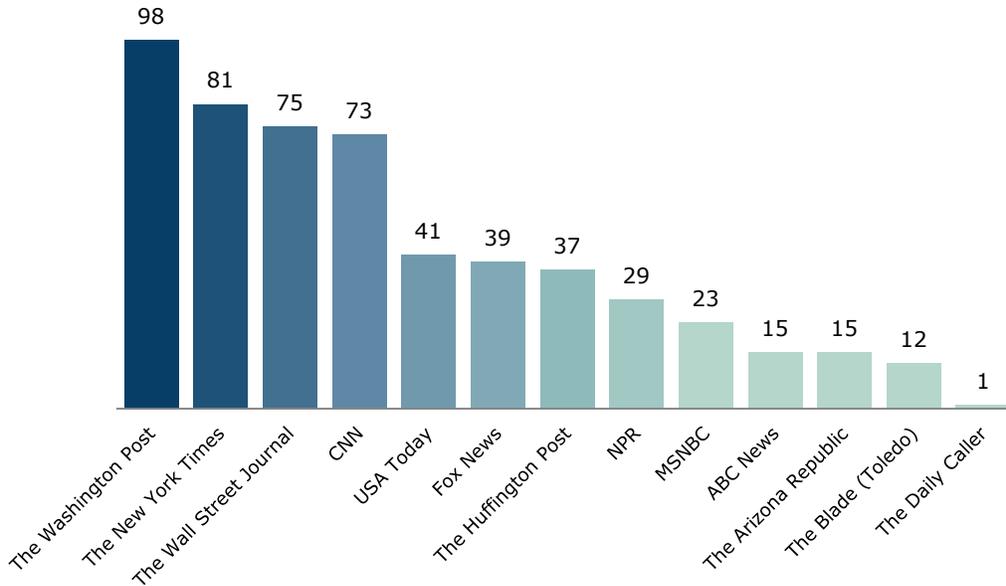
⁴ The hashtag symbol (#) is used before key words to categorize tweets and helps facilitate searches within Twitter.

⁵ This list of feeds does not include individual journalists from these outlets on Twitter, rather, only organizational level news feeds that all share the same brand. Individual journalists are another way in which these news organizations further their presence on Twitter.

⁶ The Daily Caller is a young web-only news site, launched in 2010, and is still building up its presence online.

Major Newspapers Led in Total Twitter Feeds

Number of identified organizational Twitter feeds belonging to each news outlet studied



Note: Twitter feeds were identified by researchers on October 6, 2011
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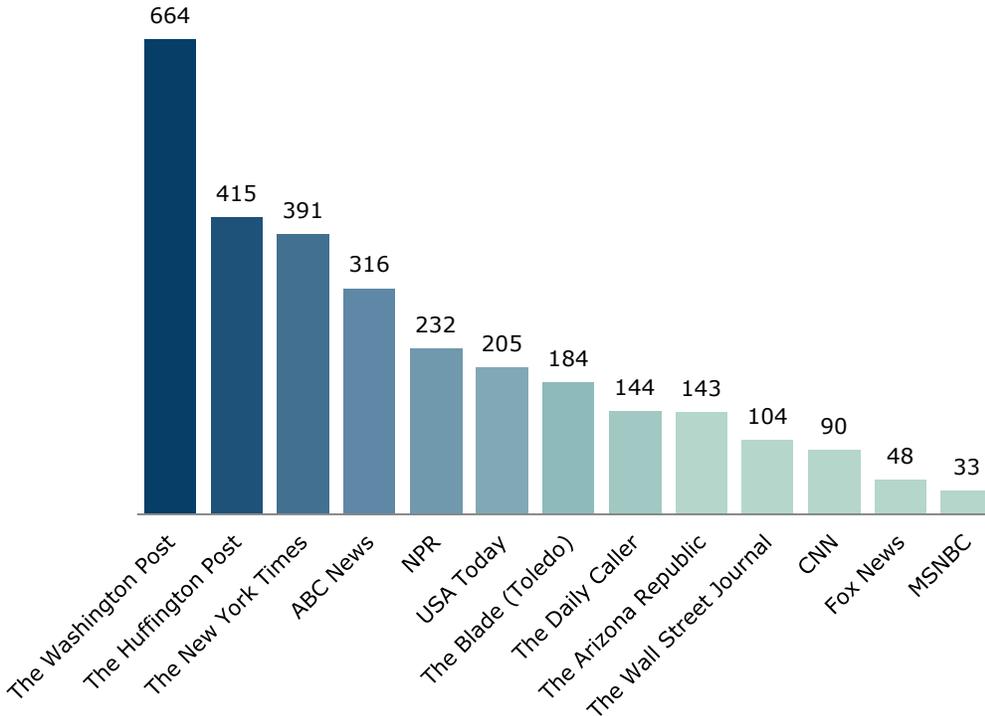
Major national newspapers tend to offer the most: As a group the four papers studied average 74. The three cable news channels average 45. The rest of the outlets studied—broadcast television, audio, online-only and local newspapers—average 18 Twitter feeds per outlet.

The other point of variation was how many tweets outlets offered. The level of daily activity ranged widely.

When it came to the main organizational Twitter feed, The Washington Post tweeted most, with 664 different tweets over the course of the week studied (February 14-20, 2011). That was followed by The Huffington Post (415 tweets) and The New York Times (391).

A Wide Range of Activity on the Main Twitter Feed

Number of tweets produced by an outlet's main news feed during a sample week



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The three cable news channels, meanwhile, tweeted the least in the general Twitter feed. MSNBC offered just 33 tweets during the week, Fox 48 and CNN 90.

One question raised by the researchers was whether some of these outlets might use other organizational Twitter feeds to a greater extent than the main one studied here. To test that, researchers tallied all the Twitter posts across all the feeds at each of these outlets. They found that, for most sites, the main Twitter feed either led or ranked near the top in terms of daily activity, and thereby aptly reflects the ranking. The one exception came in cable news. For these outlets, which in many ways pioneered the concept of 24-hour news, their “breaking news” feed was the most active. On the day captured, for instance, CNN’s breaking news feed produced 29 tweets (its main news feed produced 13); Fox News’ breaking news feed produced 113 (its main news feed produced 24); and MSNBC’s breaking news feed produced 68 tweets (its main news feed produced 13).

The Twitter Community

On Twitter, the main public measure of audience reach available is number of “followers”—individuals that have signed up to have all posts from a Twitter feed sent to their own Twitter

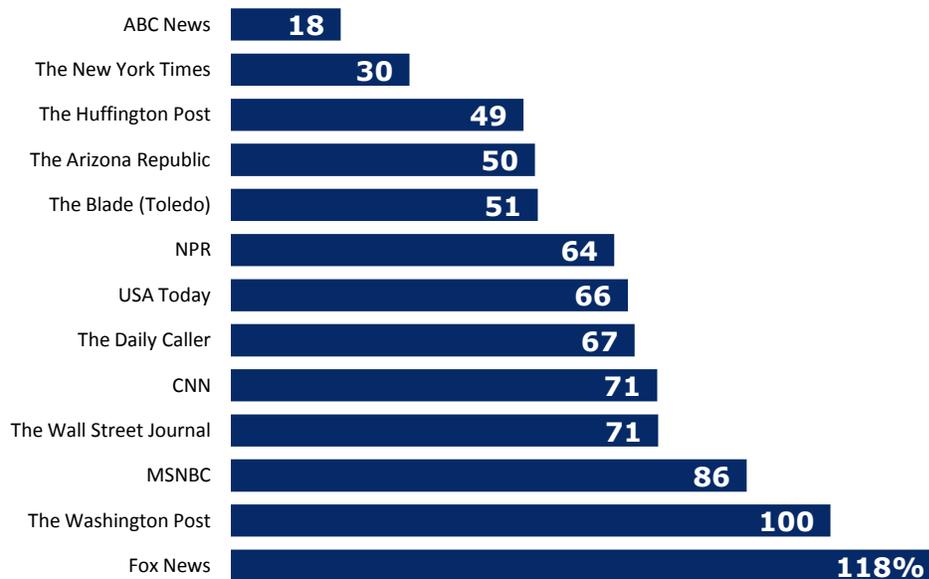
newsfeed. Following is simple to do—it consists of simply clicking on the “follow” button next to an account. What is not known, though, is whether people ever look at the posts that get sent their way, or whether they actively use their own Twitter account. Thus, the value of a follower is unclear. Nonetheless, having more followers is generally regarded as one sign of success in this realm.

Across the news organizations studied, the number of followers varied dramatically, though that number was not necessarily tied directly to the outlet’s audience size in other platforms (i.e. television ratings or print circulation). CNN had more than twice the number of followers for its main news feed as Fox News did, yet Fox programs have higher ratings on television. The New York Times, which led among national newspapers in number of followers on Twitter, falls behind The Wall Street Journal and USA Today in print circulation.

What emerges more clearly across the board is the degree of growth in followers in just a short period of time. Researchers initially catalogued followers to the main Twitter feeds in February 2011 and then checked them again in October 2011. In that eight-month time period, the main Twitter feeds studied grew their followers an average of 65%.

Rapid Growth in Followers

Percentage change in number of followers between February 2011 and October 2011



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The amount of growth ranged across the outlets that were studied. Several institutional Twitter feeds doubled or nearly doubled in followers, including Fox News (118%), The Washington Post

(100%) and MSNBC (86%). Others had more modest growth, including ABC News (18%) and The New York Times (30%).

Overall, the number of online adults who use Twitter grew 63% in the period between November 2010 and June 2011, according to the Pew Internet & American Life Project.

The News Agenda on Twitter vs. Traditional Platforms

The news agendas of the mainstream media and that of their analog presence on Twitter were strikingly similar during the week in which both were studied.

News Agenda in Twitter and Legacy Media

Percent of content dedicated to top stories of the week

	<u>Twitter</u>		<u>Legacy Media</u>	
1	Middle East unrest	12%	Economy	31%
2	Economy	10	Middle East unrest	22
3	Obama administration	3	Iran	4
4	Iran	2	Obama administration	2
5	Education	1	2012 presidential election	2

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In all, during the week of February 14-20, 2011, four of the top five stories covered by traditional media were also the stories these outlets tweeted about most.

In the legacy platforms, the troubled U.S. economy and unrest in the Middle East filled most of the newshole—the time on television and radio and the space in print and online—studied by PEJ in its weekly News Coverage Index.⁷ The economy filled 31% of the newshole PEJ studied, the Middle East 22% of the coverage. Attention to Iran came in at No. 3 (4%), and news about the Obama administration was No. 4 that week at 2%.

Those same stories also received the most attention on these outlets' Twitter platforms, though the order varied. The Mid-East situation accounted for 12% of the tweets studied. The economy made up another 10%. Those were followed by relatively heavy interest in stories about the Obama administration (3% of tweets) and stories about the U.S.'s strained relationship with Iran (2%).⁸

⁷ The legacy media sample is based on the front pages of newspapers, the home pages of websites, and the first 30 minutes of broadcast television, radio and cable programs.

⁸ The two samples of outlets, both mainstream original platforms and Twitter accounts, were altered and made equivalent for the sake of comparison by removing The Daily Caller and Saturday content.

Even with a similar emphasis on top stories, one difference in the way news functions in the legacy platforms versus on Twitter is priority. While the total number of posts on Twitter may be more about one subject than another, there is no structural hierarchy to posts. No one post is given higher priority, or “front-page status,” other than in how much they are shared. In 140 characters, everything is fairly equal.

Sharing and Gathering Information

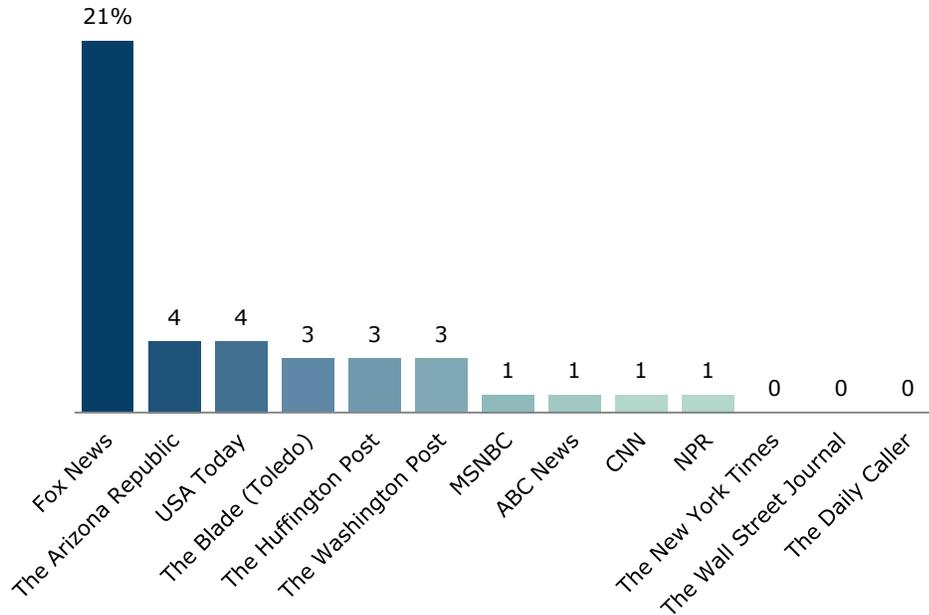
How do these news outlets use Twitter? What function does it serve? Is Twitter another form of marketing and distribution? Or is it a new tool for news gathering? Is it a means of two-way communication with the audience? Or is it a way of adding a new service for users—curation—helping followers know what content elsewhere on the web might interest them?

In general, the major news organizations studied used Twitter to direct audiences to web content that the news organization had produced and posted online. But by and large, news outlets were not using Twitter in more interactive ways, or as a reporting tool.

Just 2% of the tweets examined from the main organizational Twitter feeds asked followers for information—either to help inform a story or to provide feedback. Even the most active outlets rarely or never solicited information from their followers. Less than 1% of the tweets from The New York Times, 3% from The Washington Post and 3% from The Huffington Post (one of two online-only news outlets studied) solicited information.

Little Use of Main Twitter Feed as a Reporting Tool

Percentage of tweets studied that were information-gathering in nature



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One notable exception to this was Fox News. Although the main Fox News feed had light activity on Twitter, fully one-fifth of its limited tweets (10 of the 48 tweets in the period examined) directly solicited information from followers. For instance, the Fox account solicited input on topics ranging from foreign policy, “Are you tweeting in Iran? Tell us!” and “...follow Bahrain uprising @foxnews/Bahrain – let us know who you are following, we’ll add to the list #Bahrain #Egypt11,” to consumer interest topics, “After 16 states banned phosphorus in dishwasher detergent how are YOU getting dishes clean? #cleandishers or email foxnewstips@foxnews.com.” While it is unknown how much feedback is actually received from these tweets, engagement with those followers appears to be a bigger part of the Fox News Twitter strategy.

Linking To Drive Traffic and Promote Content

With only 140 characters, Twitter itself can provide only a brief amount of information in a tweet, so the inclusion of links allows followers to easily access the full story for further reading, listening or viewing. But, just as it took news organizations years to link to outside websites that were not part of their own news entity, they now almost solely post links to their own material on Twitter. Mainstream news organizations primarily use Twitter to move information and push content to readers. For these organizations, Twitter functions as an RSS feed or headline service

for news consumers, with links ideally driving traffic to the organization's website. Ninety-three percent (93%) of tweets on mainstream Twitter feeds contained a link that drove traffic back to its home site.

More than 98% of the tweets studied from The New York Times, The Washington Post, USA Today, The Huffington Post, The Daily Caller and NPR included links. The two local papers in the sample, the Toledo Blade and The Arizona Republic, were somewhat less likely to include links in their tweets (70% and 85% respectfully). Fox News was once again an exception. Only 65% of its tweets contained a link, as more of its tweets were conversational and soliciting interaction.

Little Use of the Retweet Function

One common practice on Twitter is retweeting—or passing along an interesting tweet that originated elsewhere. Retweeting, in theory, would allow news organizations to forward another user's tweet to their news audience; it also has the potential to introduce new voices and new ideas from outside the news organization. In addition, it can expand the reporting on a given topic through the inclusion of other sources. On Twitter, retweeting is a form of curation and recommendation, and it can move very quickly. NPR's Andy Carvin, who has become known as a leader in the use of Twitter for journalism, has spoken about the value of sharing other peoples' content, especially when they are on the ground in hard-to-reach places. "I think it's important to tell the world this footage is available, and you can bear witness," said Carvin in reference to sharing the work of citizen journalists in a war zone.⁹

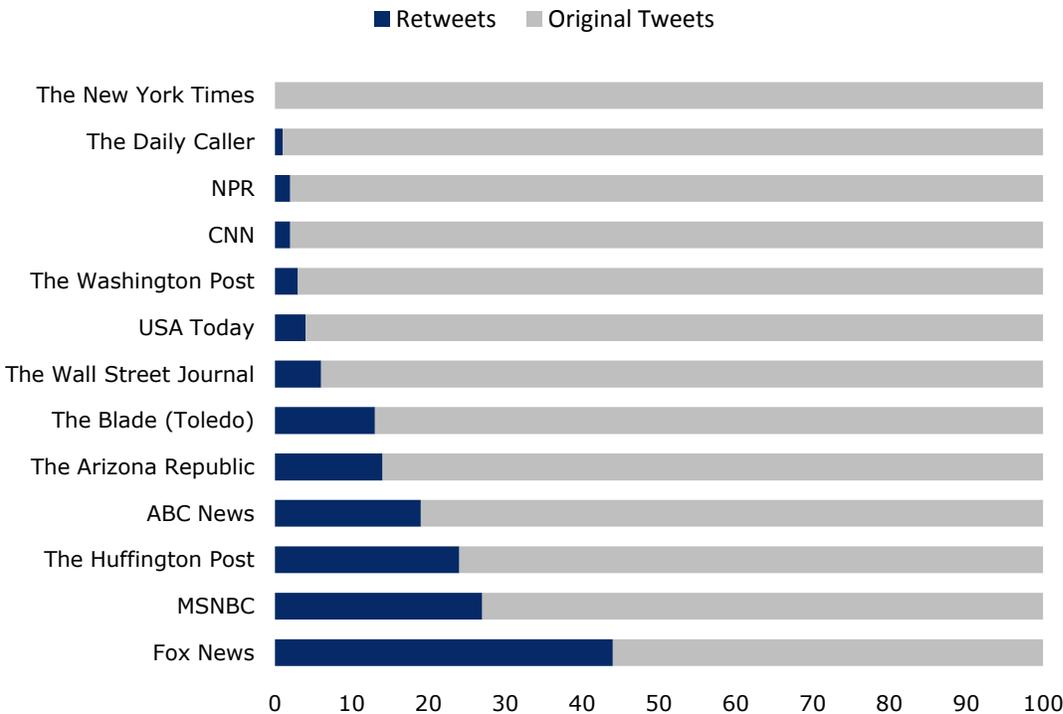
In general, the news operations studied did not engage in much retweeting.

Researchers found that retweeting is rare, and retweets do not often originate outside the news organization. Only 9% of the tweets examined were retweets. Of these, 90% originally appeared on another Twitter feed connected to the same news organization such as a section feed, reporter's feed or, in the case of television networks, another show on the network. In all, only 1% of tweets studied originated from an entity outside the news organization.

⁹ Harbaugh, Pam. "NPR's social media specialist lives the tweet life," Florida Today. April 22, 2011.

A Wide Range in Sharing Other Information

Percentage of tweets studied that were retweets and original tweets



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There was also considerable variation in retweeting across outlets. Many of the outlets examined almost never retweeted content from their main feeds. Fox and MSNBC tweeted less overall, but they were far more likely than the other outlets to retweet content (44% of Fox's tweets and 27% of MSNBC's tweets were retweets). The Huffington Post (24% of tweets), ABC News (19% of tweets) and the two local papers The Toledo Blade (13%) and The Arizona Republic (14%) were also more likely to retweet content.

How would it benefit journalism if news organizations retweeted content from outsiders? Some argue that Twitter can reveal the process of news creation, forwarding information and checking its veracity. But doing so also raises new questions for those news organizations. If an outlet passes along someone else's reporting, can they truly vouch for its accuracy? Does retweeting amount to an endorsement?¹⁰ For news organizations that treat their main Twitter

¹⁰ In November, the Associated Press issued new social media guidelines in order to address the matter of retweets. From their guidelines, "Retweets, like tweets, should not be written in a way that looks like you're expressing a personal opinion on the issues of the day. A retweet with no comment of your own can easily be seen as a sign of approval of what you're relaying."

feed as an alternative location to distribute the day’s news, forwarding news items that may be unverified or using feeds as part of the reporting process appears inconsistent with the function they assign to the main outlet feed.

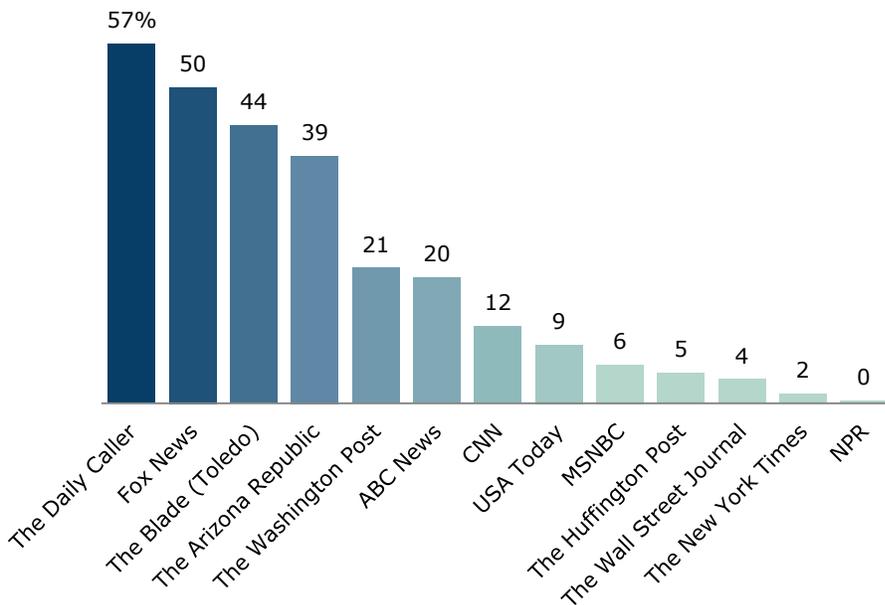
Taken together, the retweet data and the findings with respect to the use of Twitter to solicit information suggest that mainstream news outlets are not generally using Twitter to expand the conversation or include alternative perspectives and voices.

The Use of Hashtags

There is also wide variation in the use of hashtags by the news organizations studied. The hashtag symbol (#) is used before key words to categorize tweets and helps facilitate searches within Twitter. Clicking on a hashtag will show all the tweets in a category. There was significant variation in the use of hashtags across the news organizations examined, suggesting significant variation in the extent to which these organizations utilize the unique aspects of this tool.

Use of Hashtags

Percentage of tweets studied that contained hashtags



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The Washington Post, one of the most active news organizations studied on Twitter, regularly used hashtags (21% of tweets studied included at least one hashtag) to categorize tweets. Fox News and the two local newspapers, The Toledo Blade and The Arizona Republic, used hashtags even more. By contrast, some outlets, including those that had a high volume of tweets like The New York Times and NPR, almost never used hashtags. In the news context, hashtags signal

that a tweet (and by extension the linked story) are related to a particular ongoing news story or topic. Given the promotional function that Twitter appears to serve for news outlets, the lack of hashtag usage is perhaps surprising as hashtags would enhance the chance that a news organization's stories will be read by individuals who are not already following their feed.

A closer look at the nature of hashtag use signals variation as well. Sometimes hashtags themselves are used in promotional ways, such as when CNN uses the #CNN hashtag within tweets. The data show, however, that many hashtags were used to connect a single tweet to an ongoing news story.

For example, there was considerable use of country-based hashtags (#Bahrain, #Egypt, #Yemen) to connect tweets to the ongoing events of the Arab spring in February 2011. For news organizations using hashtags in this way, they are linking their content into a larger conversation about the topic on Twitter. The Daily Caller—an outlet with a high proportion of conservative content—had the highest proportion of tweets with a hashtag of all the organizations examined.¹¹ A closer look at these tweets shows repeated use of #TCOT and #GOP—hashtags which might help link information from the Daily Caller into politically conservative social networks.

Individual Reporters' Use of Twitter

If the organizational Twitter feed is mainly a way of disseminating their content, might individual journalists exploit the social nature of the tool more—using it to gather information and build connections with their readers? To answer this, at least in part, researchers examined the Twitter feeds of the most-followed individuals on Twitter from each news organization studied. In addition, in order to examine how reporters on a specialty beat use Twitter, Twitter feeds of health reporters from among the news organizations studied were added to this mix.

Certainly, there are reporters who are heavy and innovative users of the tool yet were not included in the study. These include, but are no means limited to, reporters such as Brian Stelter of the New York Times, who gained attention for his Twitter reporting from Joplin, Mo., during the aftermath of a tornado there. Researchers determined that examining the most-followed users offered the most consistent method across the news sites in the study.

As with news organizations, individual journalists use Twitter in widely divergent ways.

Among those studied, some used the tool heavily. The Washington Post's Steve Goff, a sports reporter, tweeted 101 times during the February week studied.

¹¹ "Non-Profit News: Assessing a New Landscape in Journalism." Project for Excellence in Journalism. July 18, 2011.

Others hardly used Twitter. Rachel Maddow, the MSNBC cable prime-time host, tweeted only three times during the week studied. George Stephanopoulos, ABC's Good Morning America anchor, tweeted 13 times. The popularity of these individuals, though, is still quite robust. At the time of study, Maddow was followed by 1.9 million Twitter users.¹² Stephanopolous was followed by 1.7 million. They, along with other well-known media figures such as NPR's Scott Simon and New York Times columnist David Pogue, were the most-followed journalists among those that were studied.

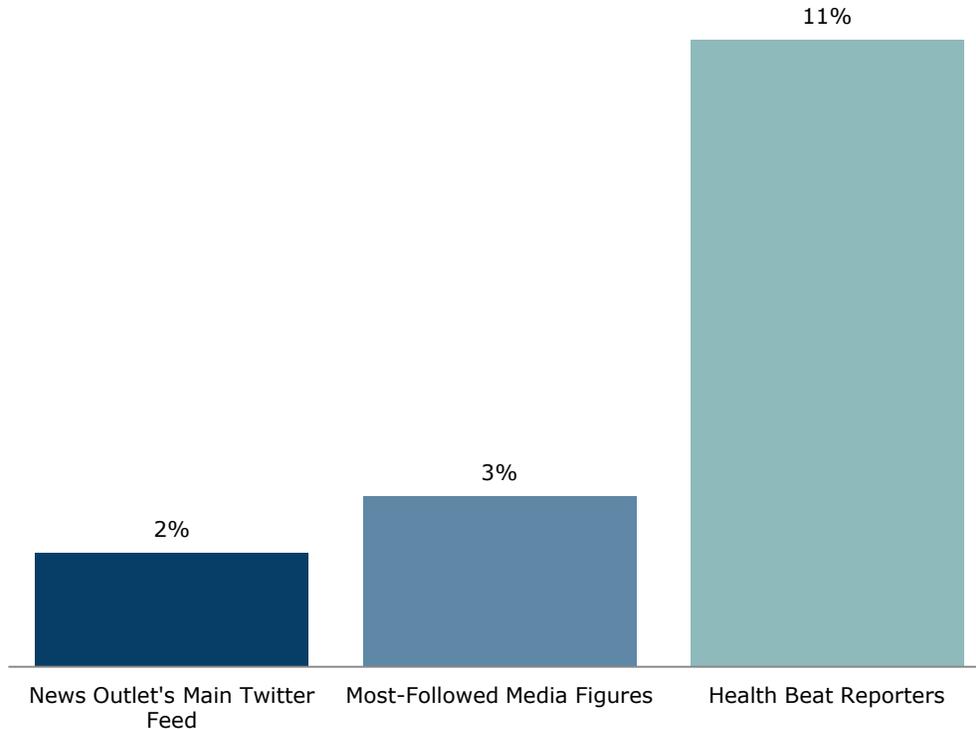
Of the 13 most heavily followed individuals at the news organizations in the study, the average number of tweets in a week was 32, or five times per day.

When these journalists did tweet, very little of that material was information-gathering in nature. Eight of the 13 reporters examined never asked followers to help provide information. On average, only 3% of individual reporters' tweets did so. There were exceptions, among them NPR's Simon, who took the opportunity on three different occasions to solicit information from his audience in a week where he tweeted 29 times. USA Today's Whitney Matheson also did so three times in a week with 19 tweets.

¹² These tallies were updated from those taken during the original period of data collection. The number of followers in this report was recorded on August 25, 2011.

Use of Twitter for Information Gathering

Percent of tweets focused on obtaining information from audience



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One question is the degree to which individuals use Twitter in a more personal way. The idea that Twitter is the venue where professionals share details of their personal lives was true to some degree among the reporters studied. On average, reporters included personal anecdotes in 39% of the week's tweets. As with other findings, there was a wide range when it came to how casual those reporters were in their Twitter persona. Some, like Arianna Huffington, included personal anecdotes fully 62% of the time. Others, such as Goff, did so only 2% of the time.

Those personal anecdotes were sometimes not particularly informational "Comparing notes with David Brooks backstage before our Intelligence Squared debate at NYU tonight #2partydebate" —Arianna Huffington); other instances were more clearly light-hearted ("just wiped out on some ice. both feet in the air, landing on my back. my dog could not have been more amused." —Jack Gray).

Individual reporters did not retweet other content often during the week studied. The average portion of tweets that were retweets was 11%. And about half of those retweets—6% of all

tweets—were retweets of postings from outside entities (compared with 1% on the institutional Twitter feeds). Some reporters were more likely to retweet, including Goff (19% of tweets) and Huffington (17%). But on the whole, journalists chose instead to simply share their own comments or link to their own stories, making it more of a micro-blogging tool than an interactive social media tool.

Twitter Use on the Health Beat

In addition to studying the most-followed media personalities at major U.S. news organizations, researchers also singled out one specialty beat, analyzing a week’s worth of Twitter use among health reporters at each of the news organizations studied, a total of 11 reporters.¹³

Overall, the findings suggest that when one moves away from the most popular Twitter personalities, usage becomes less personal, but also more interactive.

On average, the health reporters studied tweeted less frequently throughout the course of the week than the most-followed figures, with a mean of 23 tweets compared with 32. The health reporters were also less likely to introduce personal anecdotes into their Twitter conversations, doing so 28% of the time compared with 39% found among the top-followed personalities.

Yet health reporters were at the same time more engaging than the most-followed users were. On average, they used Twitter to gather information 6% of the time, twice as much as the most-followed personalities did (3%).

The Washington Post’s Jennifer Larue Huget invited her followers to voice their opinions. “What do you think about this Nutella law suit?” she asked on February 14. Or, in a tweet from February 15, “Anyone else worry that your dog’s breed will do so well at Westminster that it will suddenly become very popular?” Huget used Twitter as a reporting tool 21% of the time during the week studied.

ABC News’ Dr. Richard Besser, who tweets about health and medicine, wanted to know what his followers do for exercise. “What Gets You Moving?” Besser tweeted on February 18. Besser used Twitter as an information-gathering tool 12% of the time.

The practice of retweeting also indicated the levels to which health reporters studied were more interactive—on average, 22% of their tweets were retweets, compared with just 11% among the top-followed journalists.

¹³ For two of the outlets studied, the Toledo Blade and The Daily Caller, there was no reporter identified as dedicated to health issues.

Methodology: About This Study

Project for Excellence in Journalism (PEJ) staff and researchers at The George Washington University's School of Media and Public Affairs (SMPA) conducted this study and contributed to the production of this report, "How Mainstream Outlets Use Twitter."

The lead researchers on this project were PEJ Research Associate Jesse Holcomb, Research Analyst Laura Santhanam and Deputy Director Amy Mitchell, in collaboration with The George Washington University's Dr. Kimberly Gross and Research Assistant Rachel Weisel. PEJ Director Tom Rosenstiel and GWU's Dr. Robert Entman and Research Assistant Lauren Martens also participated. Initial coding of the tweets was done by undergraduate political communication students in senior seminar classes at The George Washington University's School of Media and Public Affairs.¹⁴

Sample

"How Mainstream Outlets Use Twitter" analyzed one week of tweets on the main Twitter feed of 13 different news organizations—including national and local newspapers, broadcast, radio and online media. To allow the comparison of the news agenda and nature of coverage on Twitter with legacy media, outlets were selected from the list that PEJ regularly monitors for its weekly News Coverage Index.¹⁵ See the table below for the outlets and their Twitter handles that were included in the study.

The abridged NCI sample included six newspapers—three "tier 1" national newspapers with the highest print circulation, and three high-circulation "tier 2" major metropolitan newspapers that were a part of PEJ's NCI coding rotation.

Each of the three domestic cable outlets entirely devoted to news were included.

In addition, one network news division was included. In order not to over-sample NBC News, given the presence of MSNBC in the sample, researchers selected the news division that, next to NBC, had the largest viewing audience, which is ABC News.

Finally, the web-only outlets in the study included The Huffington Post and The Daily Caller, two online-only outlets that have carved distinct identities with a political point of view. The Daily

¹⁴ The students who participate in the data collection were: Colby Anderson, Molly Anixt, Jennifer Avallon, Christopher Borchert, Andrew Clark, Jamarie Copestick, Tyler J Ducklo, Jonathan Ewing, Andrew Feldman, James Greene, Zachary Hanover, Sarah Hoberman, Owen Hooks Davis, Matthew Ingoglia, Alec Jacobs, Bradley Komar, Thomas Lawrence, Molly Lukash, Sarah Mersky, Evan Miller, Jennifer Nason, Charles Rybak, Carly Schildhaus, Samantha Schneider, Azim Shivji, Emily Smith, Eric Thibault, Brittany Tibbetts, Madeline Twomey and Maria Zisa.

Caller, which is not a part of PEJ’s NCI sample, was not included in the comparisons between legacy media and Twitter for reasons of consistency. (The Daily Caller was included in the study to provide a leading conservative counterpoint to The Huffington Post.)

Outlets Included in Study with Twitter Handles

Newspapers	Broadcast	Radio	Online
The New York Times @nytimes	ABC @abc	NPR @nprnews	The Huffington Post @huffingtonpost
The Washington Post @washingtonpost	CNN @cnn		The Daily Caller @dailycaller
USA Today @usatoday	MSNBC @msnbc		
The Wall Street Journal @wsj	Fox News @foxnews		
The Arizona Republic @azcentral			
The Blade (Toledo) @toledonews			

Researchers captured every tweet during the week of February 14-20, 2011, on the main Twitter account from each outlet, 2,969 tweets in all. The week was chosen because it resembled a typical news week. It is conceivable that in another week, one in which a major breaking news event occurred, the Twitter universe among mainstream media outlets would look different. The goal of this study, however, is to assess the nature of Twitter use during a typical week, not an extraordinary one.

In addition, researchers captured the tweets for this same week from two sets of reporters working for these outlets. These included the reporter from each outlet who had the greatest number of followers on Twitter. To determine the reporters at each organization on Twitter, researchers used a number of strategies. They began by identifying reporters by searching for the outlet on MuckRack.com, a website that lists journalists on Twitter by media outlet and links to their Twitter feeds. In addition, researchers found reporter Twitter accounts by searching for the outlet in Twitter and viewing all of the “people” results. Reporters were added to the list if the Twitter biography identified the person as a reporter for the outlet. Researchers also searched for the outlets in Twello, a website that allows users to search Twitter profiles for key terms such as news organization names. Once again, researchers added any feeds that identified the reporter as working for the outlet in question. Finally, researchers also looked at staff lists (if one was available) on the news organizations’ websites and then searched for the names of staff on Twitter. Here researchers included Twitter feeds for those on staff lists regardless of whether their Twitter profile mentioned the news organization. This combination of searches allowed researchers to build as comprehensive a list as possible of reporters on Twitter from the media organizations of interest in late January/early February 2011. Once

researchers had identified all reporters on Twitter, they selected the reporter who had the greatest number of followers as of the end of January for inclusion in the study.

In addition, researchers examined the Twitter feed from a health reporter at each organization in order to examine how reporters on a specialty beat use Twitter (researchers were unable to identify distinct health specialists at the Toledo Blade or The Daily Caller). In the event that an outlet had more than one health reporter, researchers selected for analysis the reporter who had the greater number of followers.

The list of specific reporters included in the study along with their Twitter handles can be found in the table below. There were 677 reporter tweets studied in all.

List of Reporters with Twitter Handles That Were Included in Study

News Organization	Most Followed Reporter	Health Reporter
The Washington Post	Steven Goff (Sports reporter focused on soccer) @soccerinsider	Jennifer LaRue Huget @jhuget
The New York Times	David Pogue (Technology columnist) @Pogue	Tara Parker-Pope @nytimeswell
USA Today	Whitney Matheson (Pop culture blogger) @popcandy	Liz Szabo @LizSzabo
The Wall Street Journal	Kara Swisher (Columnist; since initial research has become more associated with All Things Digital) @karaswisher	Katherine Hobson @KatherineHobson
The Arizona Republic	Paul Coro (Sports reporter) @paulcoro	Ken Alltucker @kalltucker
The Blade (Toledo)	Ryan Autullo (Sports reporter) @RyanAutullo	
CNN	Jack Gray @jackgraycnn	Dr. Sanjay Gupta @sanjayguptaCNN
MSNBC	Rachel Maddow @maddow	Melissa Dahl @melissadah
Fox News	Megyn Kelly @megynkelly	Dr. Manny Alvarez @drmannyonFOX
ABC	George Stephanopoulos @gstephanopoulos	Dr. Richard Besser @DrRichardBesser
NPR	Scott Simon @nprscottsimon	Scot Hensley @scotthensley
The Huffington Post	Arianna Huffington @ariannahuff	Dr. Patricia Fitzgerald @DrPatriciaFitz
The Daily Caller	Tucker Carlson @TuckerCarlson	

Audit

In order to understand the broader presence on Twitter, beyond the main news feed of the news outlets in the study, researchers conducted an audit in October 2011.

First, researchers tallied the number of Twitter feeds associated with each outlet. Defunct feeds were not included, nor were reporter feeds. (However, television programs that are branded around an individual were included, for instance, @hannityshow, but not @maddow.)

Because some outlets did not provide a Twitter directory, slightly varying methods were used to tally the number of feeds.

For the following outlets, researchers relied on an official directory posted on their site:

- The New York Times
- The Wall Street Journal
- The Arizona Republic
- ABC News
- USA Today

For the following outlets, researchers relied on a combination of Twitter lists curated by the organization itself, searches on Twitter, and third-party lists such as those provided by Listorious:

- NPR
- The Daily Caller
- The Blade (Toledo)
- CNN
- Fox News Channel
- MSNBC
- The Washington Post

For the Huffington Post, a careful search of each section on the website yielded its universe of Twitter feeds.

The audit yielded a total of 527 feeds.

Next, a snapshot of Twitter activity was taken by analyzing each of those 527 Tweets during the space of a single day. On October 6, 2011, researchers tallied the number of followers listed, and then tallied the number of tweets that were posted on October 4. October 4 was a relatively typical news day.

Researchers had originally recorded the number of followers for each of the outlets' main Twitter news feed on February 21, 2011 (except for The Arizona Republic, whose number of followers was recorded on February 25). This number was used to calculate the percentage growth in followers between February and October 2011.

Coding

In developing coding categories, researchers drew on the methodology used by PEJ for its weekly News Coverage Index coding, adapting and expanding it for an analysis of Twitter.¹⁶ For each tweet, coders recorded the following, based only on looking at the tweet itself: Tweet date, source, date coded, number of people who retweeted the tweet, whether the story focus of the tweet was one of the big stories in the NCI for that week, the geographic focus of the story, and the broad story topic.

In order to better understand how Twitter is used by legacy news organizations, tweets were also coded for whether they sought information, were retweets, contained links and, in the case of individual reporters, contained personal anecdotes. Coders noted if the tweet was a retweet and, if so, whether the source of the original tweet was a reporter or another type of Twitter feed at the same news organization, at another news organization, or some other type of source. To understand how much Twitter is used for promotion and driving site traffic, coders noted if the tweet contained a link and characterized the content the link took a reader to. Specifically, researchers recorded whether the link was to news, editorial or commentary, or some other type of content and whether that content was on the news organization's own website or came from outside the news organization being coded. Every tweet was also coded for whether or not it explicitly sought information from followers. This would include seeking quotes or sources for a story, seeking opinion from followers or asking followers to provide some kind of response or feedback. Finally, in the case of tweets from individual reporters, researchers also coded for whether the tweet contained a personal anecdote. The question here was whether the reporter was relating a personal anecdote about their own life such as discussing what they were doing or commenting on their life.

Every tweet was independently coded by two separate trained undergraduate coders from the School of Media and Public Affairs at The George Washington University. Coders were assigned a set of tweets from one or more news organizations and reporters. Coding was done over one month in late March and April of 2011. If intercoder reliability for a pair of coders on a given variable was 90% or above, the study principals randomly determined which coder's results to use for the final dataset. If intercoder reliability was less than 90% for a given pair on a given variable, a PEJ or SMPA researcher coded the tweets to reconcile differences between coders

¹⁶ PEJ's weekly News Coverage Index examines the news agenda of 52 different outlets from five sectors of the media: print, online, network TV, cable and radio. The weekly study, which includes some 1,000 stories, is designed to provide news consumers, journalists and researchers with hard data about what stories and topics the media are covering, the trajectories of that media narrative and differences among news platforms. The percentages are based on "newshole," or the space devoted to each subject in print and online and time on radio and TV. (See complete methodology.)

and make a final coding decision. Intercoder reliability prior to resolution by the third coder ranged from 77% to 100%.

Variable	Average Intercoder Reliability*
Number people who retweeted (range)	97.0%
Big Story	89.0%
Geographic Focus	79.2%
Personal Anecdote	93.1%
Information Gathering	96.9%
Retweet	98.4%
Retweet Source	97.2%
Tweet Contain Link	99.7%
Driving Site Traffic (characterize link)	77.2%

*Pairwise percent agreement across 15 pairs of coders

In resolving discrepancies, PEJ and SMPA researchers recoded the first 30 tweets where there was disagreement between coders. If, for a given variable, the third coder agreed with one student in the pair 90% or more of the time, that student coder’s data was used. If the third coder did not agree with one student 90% of the time on the first 30 discrepancies, the coder recoded all tweets where the initial pair disagreed to resolve discrepancies.