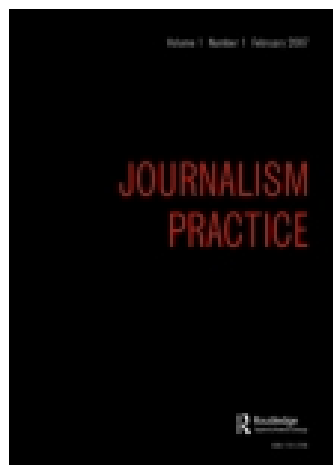


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## Journalism Practice

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rjop20>

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Published online: 30 Apr 2013.



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To cite this article: Alice Ju, Sun Ho Jeong & Hsiang Iris Chyi (2014) Will Social Media Save Newspapers?, Journalism Practice, 8:1, 1-17, DOI: [10.1080/17512786.2013.794022](https://doi.org/10.1080/17512786.2013.794022)

To link to this article: <http://dx.doi.org/10.1080/17512786.2013.794022>

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# WILL SOCIAL MEDIA SAVE NEWSPAPERS?

## Examining the effectiveness of Facebook and Twitter as news platforms

Alice Ju, Sun Ho Jeong, and Hsiang Iris Chyi

*In response to the popularity of social networking sites, newspapers are distributing content through Facebook and Twitter. Yet the role of social media in these newspapers' overall business model remains unclear at best. Are they repeating the same "mistake" seen in their Web experiment by seeking eyeballs before locating a revenue stream, giving content away for free, and granting audience access to aggregators? Analyzing the top 66 US newspapers' social media presence, this study empirically examines the effectiveness of Facebook and Twitter as news platforms. As of 2012, the distribution of newspaper content through social networking sites has become a common practice. Twitter is more effective than Facebook in terms of audience reach. While the results indicate a positive relationship among newspapers' Facebook, Twitter, Web, and print readerships, social media subscribers continue to represent a small fraction of print and Web users. Despite the hype about the potential of social media sites as news delivery channels, the magnitude of their contribution to Web traffic and advertising revenue seems underwhelming.*

**KEYWORDS** business model; Facebook; multiplatform newspapers; readership; social media; Twitter

### Introduction

The trend toward digitalization has propelled most US newspapers to experiment with multiple online channels. Such experiments started with the Web in the mid-1990s. In recent years, the growing popularity of social networking sites (SNSs) has extended newspapers' online experiments further to include platforms such as Facebook and Twitter.

An obvious motivator is the volume of traffic to SNSs. Facebook, for example, is the world's most visited website in terms of pages viewed and time spent (Google 2012; Alexa 2012a, 2012b). Eyeing the potential of SNSs, most news organizations have established their own social media presence on Facebook and Twitter (Kiesler and Eaton 2009; Chew 2007; Seward 2008). Through social media channels, newspapers deliver news or weather updates, promote specific events, and collect user-generated content (Treadaway 2010; Lewis 2009; Martire 2008). The most common practice is to share hyperlinks to stories hosted on the newspaper's website—the goal is to drive traffic from SNSs to the newspaper site. Many newspapers have devoted substantial resources and hired social media specialists to cultivate their social media audience (Parr 2009).

From the media economics perspective, the effectiveness of newspapers' social media strategy remains unclear. First, since not all social media users are interested in consuming news on social media sites, how many users can newspapers reach through their social media endeavors? Second, as different SNSs feature different functionalities, which site—Facebook or Twitter—is more successful as a news platform? In addition, to

what extent do SNSs drive traffic to newspaper websites? Most importantly, is the current social media strategy an integrated part of the overall business model?

While newspapers are actively cultivating readerships on SNSs, it is important not to forget their experiment with the Web. In the recent discussion about online paywalls, a growing number of publishers have pointed out that the collective decision to give away content online for free is problematic. However, their latest social media experiment resembles a similar strategy—i.e., seeking eyeballs before locating a revenue stream, giving content away for free, and granting audience access to aggregators. Are newspapers walking down the same path on a new platform? To address these crucial questions, this study, through an analysis of 66 major newspapers' print, Web, Facebook, and Twitter readership, offers a timely examination on the effectiveness of US newspapers' social media strategy.

## Literature Review

### *Social Networking Sites*

The Pew Research Center reported that 83 percent of American internet users aged 18–29 are using SNSs, and 61 percent of them did so the previous day (Madden and Zickuhr 2011). With the growing popularity, SNSs have become an emerging focus of scholarly research and are conceptualized in different ways.

Some scholars defined SNSs as websites where users keep their profiles and connect or get connected with others (Lenhart and Madden 2007). Some suggested SNSs are based on traditional social networks; others emphasized that SNSs help establish new relationships (Snyder, Carpenter, and Slauson 2006; Ridings and Gefen 2004). Boyd and Ellison incorporated these definitions and defined a SNS as a:

Web-based service that allows individuals to 1) construct a public or semi-public profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site. (2007, 210)

Among a number of SNSs, this study focuses on two of the most popular ones—Facebook and Twitter—because they are being utilized by newspapers as alternative publishing platforms.

### *Facebook*

Facebook is the largest SNS on earth (Holahan 2008). It was launched in 2004 as a college student directory before evolving into a commercial website (Markoff 2007). As of December 2011, Facebook had 845 million monthly active users, who visited the site at least once a month, and 483 million daily active users, who visited the site on a daily basis (Facebook 2012). On Facebook, one must register an account to create a profile. If a registered user adds another user as a Facebook friend by sending a request and the other confirms, their “friendship” is established (Boyd 2006). Users may post status updates, notes, and upload photos and videos. In addition, Facebook offers more than 500,000 applications that are mainly games (Facebook 2012).

Many businesses use Facebook for marketing purposes (Rumford 2007; Meadows-Klue 2008). While businesses cannot friend users and vice versa, people can “like” their

pages and follow the content those businesses post. As of December 2011, there were more than 37 million pages such as these with 10 or more likes (United States Securities and Exchange Commission 2012). Businesses can track how many likes are generated from their wall posts using Facebook Insight if more than 30 likes are associated with their account.

### *Twitter*

Another popular SNS is Twitter. Launched in 2006, Twitter is currently the number two SNS in the United States, with about 250 million unique visitors per month (eBizMBA 2012). Internet users can access Twitter without registering, but to post “tweets” one must register. To “tweet” is to post a short, up to 140 characters, status update. Because of the brevity of these posts, Twitter is also classified as a “microblogging” site (Java et al. 2007; Ebner and Schiefner 2008). Posting tweets and reading other people’s tweets are the primary features. Starting in 2011, users could begin to upload photos and videos to Twitter as well.

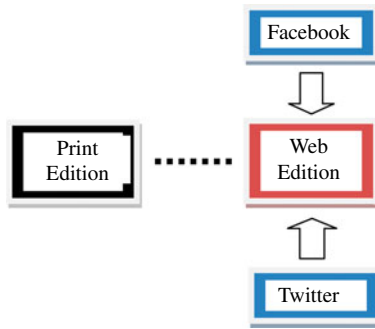
On Twitter, one builds connections with other users through “following.” A user can follow any other user without acquiring approvals if it is not a private account. The one being followed can then block followers if he or she desires. Once a connection is established, a user can see in real time all the tweets from those s/he follows.

At first glance, Twitter—with relatively limited functionalities—might seem unappealing. Yet Twitter’s success lies in its simplicity (Graham 2008). The simplicity was designed for cell phone users,<sup>1</sup> who can access Twitter via text messaging as well as more than one million third-party mobile and internet applications (Twitter 2011). Therefore, Twitter users, through various devices, can “tweet” anytime, anywhere, which makes Twitter a powerful distribution channel for breaking news (Hughes and Palen 2009; Palen et al. 2009; De Longueville, Smith, and Luraschi 2009; France 2009). When Michael Jackson died suddenly in 2009, the first tweet was reported 20 minutes after the initial 911 call, an hour before mainstream news media broke the news (Sankaranarayanan et al. 2009). Similar instances include the 2008 southern California earthquake, India terrorist attacks, and the 2009 election in Iran (Cohen 2009; Connelley 2008; Stelter and Cohen 2008). In 2012, a tweet from the Associated Press regarding Whitney Houston’s death was retweeted more than 10,000 times (Wolford 2012).

### *Multiplatform Newspapers: Print, Web, and Social Media*

As most newspapers have become multiplatform enterprises, their product lines have expanded from the print domain to include the Web and social media platforms. Users may access the newspaper in any of the three formats, which raises questions about the relationship among multiple demand-related products (Chyi et al. 2010). Figure 1 illustrates the plausible relationships among the three newspaper platforms discussed above.

In this multiplatform operation, the print edition remains the core product, which accounts for 86.5 percent of total advertising revenue (Newspaper Association of America 2012) as well as almost all subscription revenue. The role of the Web edition is ambiguous. To date, most local, general-interest newspapers are still offering content online for free, but the volume of online advertising revenue, while growing, has not made up for the loss on the print side (Newspaper Association of America 2012). Empirical evidence also suggests that free Web editions may have eroded print subscriber bases over time



**FIGURE 1**  
Multiplatform newspaper: print, Web, and social media

(Hussman 2007). Some researchers identified time displacement effects of digital newspapers on the use of the print newspaper (Dimmick, Chen, and Li 2004), which provides an explanation for the observed erosion of print circulation (Perez-Pena 2009). Other research has shown, however, that most online readers also read the print edition (Chyi and Lasorsa 1999, 2002; De Waal, Schönbach, and Lauf 2005; Gentzkow 2007; Chyi and Huang 2011). Overall, it is not clear how the Web edition has contributed to the overall business model.

As for social media, Facebook and Twitter both offer asymmetric connecting options. When users choose to like or follow a newspaper on social media, they agree to receive its news feeds. Such a relationship can be viewed as a form of subscription, which is how, hereafter, this study will refer to it. Since 2009, many news organizations—large and small—have been hiring social media editors to manage their Facebook and Twitter accounts. They spin existing stories with appropriate text, links and images on their publication’s social media accounts (Belenkaya 2011; Gleason 2010). The primary goal is to drive their social media subscribers to the Web edition (Belicove 2009; Gleason 2010; Noff 2010). Therefore, the effectiveness of such social media presence can be examined by the size of the subscriber base and the capacity of directing traffic to newspaper websites.

An exploratory study conducted in 2009 examined the interrelationship among newspapers’ print, Web, and social media editions. Results showed that most of the top newspapers attained only an insignificant subscriber base through SNSs (i.e., an average of 1320 Facebook fans and 5798 Twitter followers). In addition, there was no significant relationship between website visitors and SNS subscribers, suggesting newspapers’ social media presence did not contribute to Web traffic (Ju 2010). Noting that newspaper’s social media presence and audience correspondence have grown significantly since 2009, this study re-examines the effectiveness of Facebook and Twitter as alternative platforms for newspapers.

**Research Questions**

*Adoption of Facebook and Twitter*

The vast number of social media users has lured newspapers to manage their social network audiences. As of 2009, according to the Bivings Group, all the top 100 US

newspapers operated at least one Twitter account (Rindfuss 2009). This study first seeks to examine the latest status of newspapers' social media presence, addressing the following research question:

**RQ1:** How many major US newspapers are using Facebook and Twitter to reach social media users?

### *Audience Size on Multiple Platforms*

Different SNSs come with different feature sets and different user bases. That is why most newspapers are pursuing users on both Facebook and Twitter. Research should thus examine which platform works the best for newspapers. For example, do SNSs with a larger user base attain more subscribers? This study compares Facebook and Twitter in their capacity in attracting subscribers, addressing the following research question:

**RQ2:** Which social media platform—Facebook or Twitter—is more effective in attaining subscribers?

In addition, of the four products of multiplatform newspapers (print, Web, Facebook, and Twitter), which reaches the most users? SNSs seem to be soaring in popularity, yet, according to the latest Pew report (Mitchell, Rosenstiel, and Christian 2012), as of early 2012, only 7 percent of US adults got news on Facebook very often, compared with 3 percent on Twitter. (In comparison, 36 percent very often go directly to news organizations' websites or apps.) Moreover, among those who followed Facebook recommendations for news, 70 percent got most of the recommendations from friends and family; only 13 percent from news organizations or journalists. Among Twitter news followers, 27 percent got most of the links from news media accounts. These findings raised questions about the size of newspapers' social media audiences. Therefore, this study addresses the following research question:

**RQ3:** How does the audience size on SNSs (i.e., the number of subscribers) compare to that of the print edition (i.e., circulation) and the Web edition (i.e., the number of unique visitors)?

### *Facebook and Twitter as Pathways to the Web Edition*

Since SNS users may follow shared hyperlinks to newspapers' websites, social media serve as referrals directing traffic to news and information sites. As of 2010, Facebook accounted for 3.52 percent of referred traffic to news media websites, behind Google (17 percent), Yahoo (8 percent), and MSN (4 percent) (Hopkins 2010). In 2011, it accounted for 8 percent of the unique visitors to *The Huffington Post* and 6 percent to *The New York Times* (Kessler 2011).

When newspapers' Facebook or Twitter subscribers click on news links to visit the newspaper's website, traffic to the website increases. Hence, the more SNS subscribers, the more traffic to its website. Additionally, previous research has reported strong correlations between print circulation and the number of website visitors (Sylvie and Chyi 2007; Chyi 2011), but the relation between the print edition and the social media presence remains unclear. Therefore, this study addresses the following research question:

**RQ4:** What is the relationship among newspapers' social media subscribers, website visitors, and print circulation?

Regarding the effectiveness of social media as traffic drivers to news sites, reports indicated Facebook directs more audience to businesses websites, while others suggested Twitter is a better news-sharing tool (Zeigler 2009; Phillips 2010). Yet, since the audience size of the print edition (i.e., circulation) might influence the audience size of the Web edition and that on SNSs simultaneously, to investigate the real relationship between the audience size on SNSs and that of the Web edition, the influence of the print edition needs to be excluded. Therefore, this study addresses the following research question:

**RQ5:** After controlling for print circulation, what is the relationship between newspapers' social media subscribers and website visitors?

## Methods

In the United States, the total weekday circulation of daily newspapers is 48.6 million, and the top 15 newspapers account for one-fifth of that circulation (Pew 2010). To include major daily newspapers in the analysis, the study selected all newspapers with weekday (Monday to Friday) circulations of more than 100,000. This sample, although not representative of the overall structure of the US newspaper industry,<sup>2</sup> includes almost all of the largest newspapers (based on circulation) operating in the United States.<sup>3</sup>

### *Data Collection*

*Print circulation and Web traffic.* Print circulation and Web traffic data used in this study were gathered from the Audience-FAX database, a database made accessible by the Audit Bureau of Circulations, the Newspaper Association of America, and Scarborough Research. Newspaper circulation was measured by the weekday circulation data in the Audience-FAX database collected over a six-month period ending in September 30, 2011, making it the most recent data available at the time of the study. Newspapers file their circulation statements to the Audience-FAX database, and the Audit Bureau of Circulations audits the statements and releases the data.

The audience size of the Web edition was measured by the number of monthly unique visitors, defined as "unique individuals or browsers" that visit the website within a month (Audit Bureau of Circulations 2012). The data were collected by third-party website research vendors including Adobe Sitecatalyst (Omniure), comScore, Yahoo! Web Analytics, Google Analytics, and Nielsen NetRatings. Newspapers choose which Web metrics vendors to use. While these services measure website activities with various methods, the data released by the Audit Bureau of Circulations all follow the same guideline (Perry 2009; Interactive Advertising Bureau 2009). The Audit Bureau of Circulations also audits Web metrics data.

*Facebook and Twitter subscribers.* The audience size on Facebook was measured by the number of "likes," i.e., the number of subscribers receiving news feeds from the newspaper's Facebook page. The audience size on Twitter was measured by the number of "followers," who subscribe to the news feeds from the newspaper's Twitter account.

Each newspaper's social media presence was tracked through links available on the main page of the newspaper website. The numbers of their SNS subscribers were thus collected. When a newspaper had multiple Twitter or Facebook accounts, the one with the main identity of the paper (which usually had most likes/followers) was selected. These data were collected from February 29 to March 13, 2012.



**TABLE 1**

Outliers removed from the dataset

	Weekday circulation	Unique website visitors	Facebook likes	Twitter followers
<i>The New York Times</i>	1,150,589	33,566,000	2,057,625	4,573,133
New York <i>Daily News</i>	605,677	25,608,970	24,940	56,273
Mean <sup>a</sup>	229,706	4,659,117	54,168	106,671
Mean + 3 × SD	726,788	21,522,108	819,177	1,812,975
N	66	65	66	66

<sup>a</sup>Average of all 66 newspapers in the sample.

### Statistical Outliers

Preliminary analysis found *The New York Times* had 33,566,000 monthly Web visitors, 2,057,625 Facebook likes, and 4,573,133 Twitter followers. Its print circulation was 1,150,589. Additionally, the New York *Daily News* had 25,608,970 monthly Web visitors. Since these figures are larger than three standard deviations from the mean, *The New York Times* and *Daily News* were classified as outliers and removed from the following analysis for statistical reasons (Table 1).

### Data Analysis

RQ1 (SNS adoption) and RQ2 (which platform is more effective in terms of audience reach) are addressed using descriptive statistics such as frequencies.

RQ3 asks how the audience size on SNSs compares to that of the print/Web editions. Ratio statistics reveal the size of SNS audiences in relation to print circulation and Web visitors.

RQ4 asks about the relationship among the four products (print, Web, Facebook, and Twitter). Bivariate correlation analysis reveals the correlation between the weekday circulation, the number of unique website visitors, the number of Twitter followers, and the number of Facebook likes. RQ5 asks about the correlation between the Web edition and the SNS edition, excluding the influence of the print edition. To address RQ5, a partial correlation analysis was conducted, controlling for weekday print circulation.

## Results

RQ1 asks how many newspapers are using SNS. Results showed that all 66 newspapers in the sample use Facebook and Twitter to reach social media users.

RQ2 asks which SNS—Facebook or Twitter—is more effective in terms of audience reach. After excluding the two statistical outliers (*The New York Times* and *Daily News*), the number of Facebook likes for the 64 newspapers ranged from 0 to 330,441 (mean = 23,321; SD = 48,976), and the number of Twitter followers ranged from 29 to 872,826 (mean = 37,670; SD = 110,611). Among the 64 newspapers, 49 reached more subscribers on Twitter; 15 reached more on Facebook (Tables 2 and 3). In other words, Twitter is more effective than Facebook in terms of audience reach.

RQ3 asks how the audience size on SNSs compares to that of the print/Web editions. To compare the number of the SNS subscribers to the print and Web editions, the ratio of

**TABLE 2**  
Print circulation, unique website visitors, Facebook likes, and Twitter followers

	Mean	Minimum	Maximum	SD	Sample size
Weekday circulation	209,443	102,991	572,998	110,474	64
Monthly unique website visitors	3,867,740	453,000	17,350,000	3,379,634	63
Facebook likes	23,321	0	330,441	48,976	64
Twitter followers	37,670	29	872,826	110,611	64

social media subscribers to newspaper circulation/website unique visitors was calculated. Table 3 lists the results for each of the newspapers in the sample, and Table 4 presents the averages. Other than a few exceptional cases, the number of SNS subscribers on average is only a fraction of print circulation (9 percent for Facebook and 14 percent for Twitter) and of website visitors (less than 1 percent for both Facebook and Twitter).

RQ4 asks about the relationship among the four products (print, Web, Facebook, and Twitter). Bivariate correlation analysis was conducted on the four variables: (1) weekday circulation, (2) number of monthly unique website visitors, (3) number of Facebook likes, and (4) number of Twitter followers. Table 5 presents the results. The Pearson’s  $r$  ranges from 0.477 to 0.906 ( $p < 0.001$ ), suggesting strong positive correlations among all the four platforms. In other words, newspapers with higher print circulation tend to have more Web visitors and social media subscribers.

RQ5 asks about the relationship between newspapers’ social media subscribers and website visitors, after controlling for the influence of the print edition. Partial correlation analysis was conducted. Table 6 indicates the number of Facebook likes and the number of Twitter followers are both positively associated with the number of website visitors ( $r = 0.526$ ,  $p < 0.001$  for Facebook;  $r = 0.517$ ,  $p < 0.001$  for Twitter), after controlling for circulation. The results suggest a symbiotic relationship between newspapers’ Web and social media platforms.

**Discussion**

*High Adoption, Small Audiences*

This study shows that all of the US newspapers with weekday circulation of more than 100,000 are using SNSs to deliver content, suggesting that distribution of newspaper content through SNSs has become a common practice. However, the subscriber base on SNSs represents only a small fraction of the audience size in print (9 percent for Facebook and 14 percent for Twitter) and on the Web (less than 1 percent for both Facebook and Twitter). In other words, while many newspapers have been cultivating their social media subscribers for years, most have not reached a subscriber base nearly as large as that of the existing platforms.

Admittedly, the number of social media subscribers documented in this study did not consider scenarios such as retweets, discussions, further sharing, or stale accounts. But, given such a small social media subscriber base, the magnitude of SNSs’ contributions (to Web traffic and to advertising revenue) is underwhelming at best, despite all the media hype about the potential of SNSs as news delivery channels.

**TABLE 3**

Print circulation, unique website visitors and social media subscribers

Newspaper (state/newspaper)	Weekday circulation	Unique visitors	No. of Facebook likes	Facebook/ circulation (%)	No. of Twitter followers	Twitter/ circulation (%)
<i>The New York Times</i> <sup>a</sup>	1,150,589	33,566,000	2,057,625	179	4,573,133	397
New York/ <i>Daily News</i> <sup>a</sup>	605,677	25,608,970	24,940	4	56,273	9
California/ <i>Los Angeles Times</i>	572,998	17,335,000	202,722	35	239,982	42
California/ <i>San Jose Mercury News</i>	527,568	3,672,000	23,109	4	11,361	2
District of Columbia/ <i>Washington Post</i>	507,465	17,350,000	330,441	65	872,826	172
Illinois/ <i>Chicago Tribune</i>	425,370	3,363,000	45,465	11	75,147	18
Texas/ <i>Dallas Morning News</i>	409,642	1,875,000	16,235	4	49,078	12
New York/ <i>Long Island Newsday</i>	404,542	1,547,000	25,493	6	12,075	3
Illinois/ <i>Chicago Sun-Times</i>	389,353	4,588,000	11,125	3	37,176	10
Texas/ <i>Houston Chronicle</i>	369,710	8,830,153	13,607	4	32,341	9
Colorado/ <i>Denver Post</i>	353,115	5,197,439	136,506	39	51,894	15
Pennsylvania/ <i>Philadelphia Inquirer</i>	331,134	6,884,206	4,525	1	28,373	9
Minnesota/ <i>Minneapolis-St. Paul Star Tribune</i>	298,147	7,642,455	7,963	3	25,479	9
Arizona/ <i>Republic</i>	292,838	6,724,945	38,888	13	6,165	2
California/ <i>Orange Co. Register</i>	270,809	3,621,862	11,128	4	8,396	3
Ohio/ <i>Cleveland Plain Dealer</i>	243,299	2,366,000	10,636	4	15,890	7
Washington/ <i>Seattle Times</i>	242,814	6,227,773	13,978	6	45,540	19
Oregon/ <i>Oregonian</i>	242,784	2,163,000	7,732	3	22,312	9
Florida/ <i>St. Petersburg Times</i>	240,024	4,268,939	8,309	3	7,887	3
Michigan/ <i>Detroit Free Press</i>	234,579	5,361,464	19,491	8	39,179	17
California/ <i>San Diego Union-Tribune</i>	224,555	4,322,642	0	0	16,502	7
California/ <i>San Francisco Chronicle</i>	220,515	13,620,630	20,017	9	47,488	22
Nevada/ <i>Las Vegas Review-Journal</i>	213,078	— <sup>b</sup>	8,609	4	13,631	6
New Jersey/ <i>Newark Star-Ledger</i>	210,586	4,986,000	1,365	6	16,876	8
Massachusetts/ <i>Boston Globe</i>	205,939	6,382,000	20,516	10	23,380	11
California/ <i>Sacramento Bee</i>	199,921	3,718,848	8,360	4	19,586	10
Missouri/ <i>Kansas City Star</i>	199,222	3,955,122	8,337	4	20,312	10
Missouri/ <i>St. Louis Post-Dispatch</i>	191,631	4,439,197	32,281	17	15,154	8
Texas/ <i>Fort Worth Star-Telegram</i>	189,795	2,653,521	5,666	3	11,607	6
Wisconsin/ <i>Milwaukee Journal Sentinel</i>	188,819	4,829,209	6,619	4	7,087	4
Minnesota/ <i>St. Paul Pioneer Press</i>	188,081	1,836,691	11,788	6	13,814	7
Pennsylvania/ <i>Pittsburgh Tribune-Review</i>	187,875	3,530,220	13,154	7	15,556	8
Arkansas/ <i>Little Rock Democrat Gazette</i>	179,134	976,945	3,130	2	29	0
Hawaii/ <i>Honolulu Star-Advertiser</i>	178,082	1,255,130	43,439	24	10,266	6
Georgia/ <i>Atlanta Journal-Constitution</i>	173,884	2,148,000	28,562	16	59,205	34
Pennsylvania/ <i>Pittsburgh Post-Gazette</i>	173,160	3,530,220	17,317	10	14,460	8

TABLE 3 (Continued)

Newspaper (state/newspaper)	Weekday circulation	Unique visitors	No. of Facebook likes	Facebook/circulation (%)	No. of Twitter followers	Twitter/circulation (%)
Indiana/ <i>Indianapolis Star</i>	171,662	2,685,797	22,171	13	29,661	17
Florida/ <i>Orlando Sentinel</i>	171,418	8,581,514	15,794	9	27,720	16
Maryland/ <i>Baltimore Sun</i>	170,510	4,031,572	15,995	9	27,232	16
Florida/ <i>Miami Herald</i>	160,505	1,205,326	28,803	18	58,733	37
Florida/ <i>Fort Lauderdale South Florida Sun-Sentinel</i>	147,860	4,144,564	15,207	10	20,532	14
Virginia/ <i>Norfolk-Portsmouth-Virginia Beach-Chesapeake Virginian-Pilot</i>	145,785	1,721,537	9,013	6	6,027	4
North Carolina/ <i>Charlotte Observer</i>	145,595	2,739,992	8,193	6	18,009	12
Kentucky/ <i>Louisville Courier-Journal</i>	142,801	1,536,298	8,737	6	7,428	5
Michigan/ <i>Detroit News</i>	139,128	5,361,464	17,756	13	28,858	21
Florida/ <i>Tampa Tribune</i>	138,172	2,833,700	1,924	1	4,580	3
Texas/ <i>San Antonio Express-News</i>	137,514	2,587,737	15,674	11	12,733	9
Louisiana/ <i>New Orleans Times-Picayune</i>	135,716	1,886,000	21,522	16	30,784	23
Connecticut/ <i>Hartford Courant</i>	135,363	2,702,857	4,213	3	12,184	9
Ohio/ <i>Columbus Dispatch</i>	135,330	453,000	12,414	9	9,768	7
Nebraska/ <i>Omaha World-Herald</i>	135,282	1,179,065	6,447	5	7,944	6
Oklahoma/ <i>Oklahoman</i>	132,294	2,314,559	7,965	6	13,067	10
North Carolina/ <i>Raleigh News &amp; Observer</i>	127,138	2,232,258	4,022	3	15,582	12
Rhode Island/ <i>Providence Journal</i>	122,558	1,230,397	1,423	1	8,579	7
Tennessee/ <i>Nashville Tennessean</i>	120,805	1,857,505	16,081	13	18,500	15
Texas/ <i>Austin American-Statesman</i>	119,885	3,530,820	18,272	15	49,251	41
New York/ <i>Rochester Democrat &amp; Chronicle</i>	116,891	1,138,599	3,511	3	9,454	8
Ohio/ <i>Toledo Blade</i>	113,786	2,485,480	9,436	8	12,006	11
California/ <i>Riverside Co. Press-Enterprise</i>	112,084	1,123,847	4,812	4	6,528	6
Tennessee/ <i>Memphis Commercial Appeal</i>	111,618	1,453,732	694	1	14,454	13
Virginia/ <i>Richmond Times-Dispatch</i>	110,732	2,238,901	10,390	9	8,490	8
Utah/ <i>Salt Lake City Tribune</i>	105,746	2,613,910	10,782	10	14,466	14
Iowa/ <i>Des Moines Register</i>	105,151	1,841,482	16,589	16	18,002	17
California/ <i>Fresno Bee</i>	104,991	867,648	4,603	4	7,933	8
New Jersey/ <i>Neptune Asbury Park Press</i>	104,582	1,339,454	7,332	7	8,477	8
Alabama/ <i>Birmingham News</i>	102,991	2,546,000	16,235	16	17,812	17
Average <sup>c</sup>	209,443	3,867,740	23,321	9	37,670	14
N <sup>c</sup>	64	63	64	64	64	64

<sup>a</sup>Outliers removed for statistical reasons.<sup>b</sup>No data.<sup>c</sup>Statistics after removing the two outliers.

**TABLE 4**

Ratios of social media subscribers to print circulation and Web users

	%
No. of Facebook likes/circulation ( $N = 64$ )	9.0
No. of Twitter followers/circulation ( $N = 64$ )	14.0
No. of Facebook likes/No. of monthly unique Web visitors ( $N = 63$ )	0.6
No. of Twitter followers/No. of monthly unique Web visitors ( $N = 63$ )	0.9

**TABLE 5**

Correlation among print circulation, Web visitors, and social media subscribers

	Print circulation	Unique website visitors	Facebook likes	Twitter followers
Print circulation	1	0.610***	0.585***	0.477***
Unique website visitors		1	0.695***	0.651***
Facebook likes			1	0.906***
Twitter followers				1

\*\*\* $p < 0.001$  (one-tailed).**TABLE 6**

Partial correlation between Web visitors and social media subscribers, controlling for print circulation

	Unique website visitors	Facebook likes	Twitter followers
Unique website visitors	1	0.526***	0.517***
Facebook likes		1	0.879***
Twitter followers			1

\*\*\* $p < 0.001$  (one-tailed).

Further evidence came from an industry report comparing various types of referral sites' capacity to drive traffic to news sites. Search engines were found to direct 37 percent of referrals to news websites, while SNSs accounted for only 7 percent of referred traffic to news sites (Sonderman 2011).

### *Economic Value of SNS Subscribers*

SNS subscribers may add page views and ad impressions to the Web edition. But visitors from SNSs are not as engaged—measured by higher bounce rates and lower page views—as those referred from other content sites (Sonderman 2011). Moreover, the industry's decade-long search for a working business model for the Web edition itself has not been successful. While the number of newspapers' Web visitors has been growing during the past decade, the relationship between the Web edition and its print counterpart has become ambiguous. More and more empirical evidence has suggested that free Web offerings may have eroded print subscriber bases over time (Roberts 2009; Hussman 2007). Therefore, an important question to ask becomes: Are newspapers

repeating the same “mistake” by giving content away for free to SNS users and by granting audience access to aggregators?

The recent movement toward the fee-based model further complicates the issue. As many newspapers are considering erecting paywalls around their Web content (Jenner and Fleming 2011), they must re-conceptualize the role of their SNS subscribers—who enjoyed free access to Web content previously.

Overall, from the media economics perspective, the effectiveness of newspapers’ social media strategy remains questionable. Just like what they did with their Web operations, newspapers seem eager to seek “eyeballs” through Facebook and Twitter before locating a viable business model. Such social media endeavors run the risk of misallocating resources and generating undesirable outcomes.

### *Twitter is More Newsful*

When the two SNSs are compared, this study found more users follow newspapers through Twitter as opposed to Facebook, suggesting larger SNSs do not necessarily generate more subscribers for newspapers. This also confirms findings from an industry report suggesting that Twitter drives more traffic than Facebook to news sites (Sonderman 2011). The different characteristics of the two SNSs may explain the difference. While Twitter is highly focused on reading and posting tweets, Facebook has various functions that users can choose from, which include playing games, posting/viewing photos or videos, etc. It is likely that Facebook users are not as interested in following the news while they are on Facebook. In other words, Facebook is a social *network* while Twitter is more of social *media*—more news-oriented, or more “newsful”<sup>4</sup> (Chyi and Chadha 2011, 437).

### *Unique Case: The New York Times*

This study excluded *The New York Times* from analysis because it was a statistical outlier. Yet, the newspaper boasts 2 million Facebook likes and 4.5 million Twitter followers. Such figures are impressive compared with the average number of SNS subscribers attained by other major newspapers. It is fair enough to consider *The New York Times* a success story, but *The New York Times* has always been a unique newspaper in the United States (and perhaps the most recognizable newspaper brand worldwide). In a larger context, among the 100 most followed Twitter accounts, only a couple are operated by news organizations—i.e., CNN (No. 28 and No. 81), *The New York Times* (No. 64), and *The Onion* (No. 98) (Twitaholic 2012). This confirms the aforementioned findings of the Pew survey—only 3 percent of US adults got news on Twitter very often (Mitchell, Rosenstiel, and Christian 2012).

### **Limitations of the Study**

This study retrieved data from the Audience-FAX database. Website usage data in Audience-FAX was reported by different organizations. Hence, not all data were collected at the same time.

In addition, this study addressed the correlation between circulation, the number of website unique visitors, and SNS subscribers. The existence of a correlation, however, does not guarantee a causal relationship.

Finally, this study has not examined at the micro level how each newspaper takes advantage of social network sites. Future studies may analyze individual cases to identify effective strategies applicable for the newspaper industry.

Despite these limitations, this study offers a timely examination on the effectiveness of SNSs as news platforms. The findings suggest the role of newspapers' social media presence in the overall business model (i.e., its contribution to Web traffic and total revenue) remains vague at best. Newspapers should re-evaluate the effectiveness of their social media strategy by clarifying the interrelationships among their multiplatform products.

## ACKNOWLEDGEMENTS

This study is partly funded by the School of Journalism at the University of Texas at Austin. We thank Glenn Frankel, George Sylvie, Avery Holton, Jordan Humphreys, Elizabeth Blancas, and Angela M. Lee for their support and assistance.

## NOTES

1. A text message from a cell phone is limited to 160 characters. Twitter was designed for users to update their status via their cell phones. Reserving 20 characters for user names, Twitter (2009) adopted the limit of 160 characters from Short Message Service (SMS).
2. The average weekday circulation of the US daily newspapers is only 34,541 (Editor & Publisher 2008).
3. *The Wall Street Journal*, *USA Today*, and the *New York Post* were not included in the sample because their audience data were not available in the Audience-FAX database. With weekday circulation of 2,096,169 for *The Wall Street Journal* and 1,784,242 for *USA Today* (for the six months ending in September 30, 2011), even if their data were accessible through the Audience-FAX database, these two newspapers would still be excluded as statistical outliers.
4. "Newsfulness" refers to the extent a multi-purpose device or platform is used for news purposes (Chyi and Chadha 2011).

## REFERENCES

- Alexa. 2012a. "Site Info" for Facebook.com. Accessed March. <http://www.alexa.com/siteinfo/facebook.com>.
- Alexa. 2012b. "Site Info" for Google.com. Accessed March. <http://www.alexa.com/siteinfo/google.com>.
- Audit Bureau of Circulations. 2012. "Audience-FAX FAQs for Tier One Newspapers." [http://164.109.50.192/services/n\\_audiencefaq.htm](http://164.109.50.192/services/n_audiencefaq.htm).
- Belenkaya, Veronika. 2011. "As Editorial Jobs Stagnate, Newsrooms Hire Social Media Experts." International Journalists' Network, June 16. <http://ijnet.org/blog/editorial-jobs-stagnate-newsrooms-hire-social-media-experts>.

- Belicove, Mikal E. 2009. "10 Ways a Facebook Fan Page Helps Your Business—Facebook Fan Pages for Business." *Entrepreneur.com*, December 28. <http://www.entrepreneur.com/microsites/websmarts/article204492.html>.
- Boyd, Danah M. 2006. "Friends, Friendsters, and Myspace Top 8: Writing Community into Being on Social Network Sites." *First Monday* 11 (12). doi:10.5210/fm.v11i12.1418.
- Boyd, Danah M. and Nicole B. Ellison. 2007. "Social Network Sites: Definition, History, and Scholarship". *Journal of Computer Mediated Communication* 13 (1). <http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html>.
- Chew, Jacqui. 2007. "Newspapers Find Gold in "We" Media." *iMediaConnection*, August 29. <http://www.imediaconnection.com/content/16406.imc>.
- Chyi, Hsiang Iris. 2011. "Online Readers Geographically More Dispersed Than Print Readers." *Newspaper Research Journal* 32 (3): 97–111.
- Chyi, Hsiang Iris, and Monica Chadha. 2011. "News on New Devices: Is Multi-platform News Consumption a Reality?" *Journalism Practice* 6 (4): 431–449. doi:10.1080/17512786.2011.629125.
- Chyi, Hsiang Iris, and J. Sonia Huang. 2011. "Demystifying the Demand Relationship between Online and Print Products under One Newspaper Brand: The Case of Taiwan and the Emergence of a Universal Pattern." *Asian Journal of Communication* 21 (3): 243–261. doi:10.1080/01292986.2011.559261.
- Chyi, Hsiang Iris, and Dominic Lasorsa. 1999. "Access, Use and Preferences for Online Newspapers." *Newspaper Research Journal* 20 (4): 2–13.
- Chyi, Hsiang Iris, and Dominic Lasorsa. 2002. "An Explorative Study on the Market Relation between Online and Print Newspapers." *Journal of Media Economics* 15 (2): 91–106. doi:10.1207/S15327736ME1502\_2.
- Chyi, Hsiang Iris, Mengchieh Jacie Yang, Seth C. Lewis, and Nan Zheng. 2010. "Use of and Satisfaction with Newspaper Sites in the Local Market: Exploring Differences Between Hybrid and Online-only Users." *Journalism & Mass Communication Quarterly* 87 (1): 62–83. doi:10.1177/107769901008700104.
- Cohen, Noam. 2009. "Twitter on the Barricades: Six Lessons Learned." *The New York Times*, June 21. <http://www.nytimes.com/2009/06/21/weekinreview/21cohenweb.html>.
- Connelley, Sean. 2008. "Twitter Sees Earth-shaking Activity during SoCal Quake." *The Los Angeles Times*, July 30. <http://latimesblogs.latimes.com/technology/2008/07/twitter-earth-qu.html>.
- De Longueville, Bertrand, Robin S. Smith, and Gianluca Luraschi. 2009. "OMG, from Here, I Can See the Flames!": A Use Case of Mining Location Based Social Networks to Acquire Spatio-temporal Data on Forest Fires." In *Proceedings of the 2009 International Workshop on Location Based Social Networks*, 73–80. New York: ACM Press. doi:10.1145/1629890.1629907.
- De Waal, Ester, Klaus Schönbach, and Edmund Lauf. 2005. "Online Newspapers: A Substitute or Complement for Print Newspapers and Other Information Channels?" *Communications* 30 (1): 55–72. doi:10.1515/comm.2005.30.1.55.
- Dimmick, John, Yan Chen, and Zhan Li. 2004. "Competition between the Internet and Traditional News Media: The Gratification-opportunities Niche Dimension." *Journal of Media Economics* 17 (1): 19–333. doi:10.1207/s15327736me1701\_2.
- EBizMBA. 2012. "Top 15 Most Popular Social Networking Websites." Accessed March. <http://www.ebizmba.com/articles/social-networking-websites>.



- Ebner, Martin, and Mandy Schiefner. 2008. "Microblogging—More than Fun." In *Proceedings of the IADIS Mobile Learning Conference*, edited by Inmaculada Arnedillo Sánchez and Pedro Isafas, 155–159, Portugal: Algarve. doi:10.1.1.167.4164.
- Editor & Publisher. 2008. "Circulation of U.S. Daily Newspapers by Circulation Groups." In *Editor & Publisher International Year Book*. New York: Editor & Publisher.
- Facebook. 2012. "Facebook Fact Sheet." *Facebook Newsroom*, March 2. <http://newsroom.fb.com/content/default.aspx?NewsAreaId=22>.
- France, Lisa R. 2009. "Social-networking Sites Share Breaking News." *CNN.com*, January 22. <http://www.cnn.com/2009/TECH/01/22/social.networking.news/index.html>.
- Gentzkow, Matthew. 2007. "Valuing New Goods in a Model with Complementarity: Online Newspapers." *American Economic Review* 97 (3): 713–744. doi:10.1257/aer.97.3.713.
- Gleason, Stephanie. 2010. "Harnessing Social Media." *American Journalism Review*. <http://www.ajr.org/article.asp?id=4860>.
- Google. 2012. "The 1000 Most-visited Sites on the Web." *DoubleClick Ad Planner*. Accessed March. <http://www.google.com/adplanner/static/top1000/index.html>.
- Graham, Jefferson. 2008. "Twitter Took Off from Simple to 'Tweet' Success." *USATODAY.com*, July 21. [http://www.usatoday.com/tech/products/2008-07-20-twitter-tweet-social-network\\_N.htm](http://www.usatoday.com/tech/products/2008-07-20-twitter-tweet-social-network_N.htm).
- Holahan, Catherine. 2008. "Facebook: No. 1 Globally." *Business Week*, August 13. [http://www.businessweek.com/technology/content/aug2008/tc20080812\\_853725.htm](http://www.businessweek.com/technology/content/aug2008/tc20080812_853725.htm).
- Hopkins, Heather. 2010. "Hitwise Intelligence—Heather Hopkins—North America." *Hitwise*, March 1. [http://weblogs.hitwise.com/us-heather-hopkins/2010/02/facebook\\_largest\\_news\\_reader\\_1.html](http://weblogs.hitwise.com/us-heather-hopkins/2010/02/facebook_largest_news_reader_1.html).
- Hughes, Amanda L., and Leysia Palen. 2009. "Twitter Adoption and Use in Mass Convergence and Emergency Events." *International Journal of Emergency Management* 6 (3): 248–260. doi:10.1.1.156.8385-1.
- Hussman, Walter E. Jr. 2007. "How to Sink a Newspaper." *Wall Street Journal*, May 7.
- Interactive Advertising Bureau. 2009. "IAB—Audience Reach Measurement Guidelines." [http://www.iab.net/iab\\_products\\_and\\_industry\\_services/508676/guidelines/audience\\_measurement](http://www.iab.net/iab_products_and_industry_services/508676/guidelines/audience_measurement).
- Java, Akshay, Xiaodan Song, Tim Finin, and Belle Tseng. 2007. "Why We Twitter: Understanding Microblogging Usage and Communities." In *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 Workshop on Web Mining and Social Network Analysis*, 56–65. New York: ACM Press. doi:10.1145/1348549.1348556.
- Jenner, Mike, and Ken Fleming. 2011. "The Push to Paid: Attitudes of Publishers Toward Paid Content." Reynolds Journalism Institute, University of Missouri, April 26. <http://www.niemanlab.org/pdfs/rjipaidcontent.pdf>.
- Ju, Alice. 2010. "Social Network Sites As Another Publishing Platform for Newspapers." Paper presented at the 2010 Association for Education in Journalism and Mass Communication Conference, Denver, CO, August 4–7.
- Kessler, Sarah. 2011. "Facebook More Valuable to Top News Sites Than Twitter." *Mashable*, May 9. <http://mashable.com/2011/05/09/for-top-news-sites-facebook-drives-more-traffic-than-twitter-stats/>.
- Kiesler, Sara, and Nick Eaton. 2009. "Starbucks, Microsoft Are Mighty in Social-media Marketing." *Seattlepi*, October 11. [http://www.seattlepi.com/business/411012\\_social12.html](http://www.seattlepi.com/business/411012_social12.html).
- Lenhart, Amanda, and Mary Madden. 2007. "Social Networking Websites and Teens: An Overview." Pew Internet & American Life Project, January 7. <http://www.pewinternet.org/Reports/2007/Social-Networking-Websites-and-Teens/Data-Memo.aspx>.

- Lewis, Woody. 2009. "10 Ways Newspapers Are Using Social Media to Save the Industry." *Mashable*, March 11. <http://mashable.com/2009/03/11/newspaper-industry/>.
- Madden, Mary, and Kathryn Zickuhr. 2011. "65% of Online Adults Use Social Networking Sites." Pew Internet & American Life Project, August 26. <http://pewinternet.org/Reports/2011/Social-Networking-Sites.aspx>.
- Markoff, John. 2007. "The Tangled History of Facebook." *The New York Times*, August 31. <http://www.nytimes.com/2007/08/31/business/worldbusiness/31iht-facebook.5.7340806.html>.
- Martire, Greg. 2008. "Engaging Users: User-generated Content and Tools for Newspapers." Newspaper Association of America. <http://www.naa.org/docs/Digital-Media/UGCReport0608.pdf>.
- Meadows-Klue, Danny. 2008. "Opinion Piece: Falling in Love 2.0: Relationship Marketing for the Facebook Generation." *Journal of Direct, Data and Digital Marketing Practice* 9 (3): 245–250. doi:10.1057/palgrave.dddmp.4350103.
- Mitchell, Amy, Tom Rosenstiel, and Leah Christian. 2012. "What Facebook and Twitter Mean for News." In *The State of the News Media 2012*. <http://stateofthemedias.org/2012/mobile-devices-and-news-consumption-some-good-signs-for-journalism/what-facebook-and-twitter-mean-for-news/>.
- Newspaper Association of America. 2012. "Advertising Expenditures." <http://www.naa.org/Trends-and-Numbers/Advertising-Expenditures/Annual-All-Categories.aspx>.
- Noff, Ayelet. 2010. "The Top 5 Reasons Brands Fear Social Media." *Socialmedia.biz*, February 10. <http://www.socialmedia.biz/2010/02/10/the-top-five-reasons-brands-fear-social-media/>.
- Palen, Leysia, Sarah Vieweg, Sophia B. Liu, and Amanda Lee Hughes. 2009. "Crisis in a Networked World." *Social Science Computer Review* 27 (4): 467–480. doi:10.1177/0894439309332302.
- Parr, Ben. 2009. "The New York Times Hires a Social Media Editor; Does It Need One?" *Mashable*, May 26. <http://mashable.com/2009/05/26/nyt-social-media-editor/>.
- Perez-Pena, Richard. 2009. "U.S. Newspaper Circulation Falls 10%." *The New York Times*, October 27. <http://www.nytimes.com/2009/10/27/business/media/27audit.html>.
- Perry, Bill. 2009. "Uncovering the Discrepancies in Unique Measurement Data Generated by Panel and Census-based Online Measurement Techniques." Audit Bureau of Circulations. <http://www.accessabc.com/press/abcipovpart2.htm>.
- Pew. 2010. "Audience." In *The State of the News Media 2010*. <http://stateofthemedias.org/2010/newspapers-summary-essay/audience/>.
- Phillips, Robin J. 2010. "People Get Their News from Facebook, Google, Not Twitter." Reynolds Center for Business Journalism, March 17. <http://businessjournalism.org/2010/03/17/people-get-their-news-from-facebook-google-not-twitter/>.
- Ridings, Catherine M., and David Gefen. 2004. "Virtual Community Attraction: Why People Hang Out Online". *Journal of Computer-mediated Communication* 10 (1). [http://jcmc.indiana.edu/vol10/issue1/ridings\\_gefen.html](http://jcmc.indiana.edu/vol10/issue1/ridings_gefen.html).
- Rindfuss, Allen. 2009. "The Use of Twitter by America's Newspapers." *The Bivings Report*. <http://www.bivingsreport.com/2009/the-use-of-twitter-by-americas-newspapers/>.
- Roberts, Johnnie L. 2009. "Newport Paper Succeeds in Charging for Content—The Daily Beast." *The Daily Beast*, August 31. <http://www.thedailybeast.com/newsweek/2009/08/31/this-news-doesn-t-want-to-be-free.html>.
- Rumford, Rodney. 2008. "Facebook-marketing Opportunities for Your Brand". <http://www.slide.net/Rumford/gsp-facebook-marketing101>.

- Sankaranarayanan, Jagan, Benjamin E. Teitler, Michael D. Lieberman, Hanan Samet, and Jon Sperling. 2009. "TwitterStand: News in Tweets." In *Proceedings of the 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, 42–51. New York: ACM Press. doi:10.1145/1653771.1653781.
- Seward, Zachary M. 2008. "NYT Sees Success in Facebook Push." Nieman Journalism Lab. <http://www.niemanlab.org/2008/11/nyt-claims-success-in-facebook-push/>.
- Snyder, Johnny, Donald Carpenter, and Gayla J. Slauson. 2006. "MySpace.com—A Social Networking Site and Social Contract Theory". *Information Systems Education Journal* 5 (2). <http://isedj.org/5/2/>.
- Sonderman, Jeff. 2011. "Study: Links from Other News Sites Matter More Than Social Networks." *Poynter.org*, August 10. <http://www.poynter.org/latest-news/mediawire/142356/study-links-from-other-news-sites-matter-more-than-social-networks/>.
- Stelter, Brian, and Noam Cohen. 2008. "Citizen Journalists Provided Glimpses of Mumbai Attacks." *The New York Times*, November 29. <http://www.nytimes.com/2008/11/30/world/asia/30twitter.htm>.
- Sylvie, George, and Hsiang Iris Chyi. 2007. "One Product, Two Markets: How Geography Differentiates Online Newspaper Audiences." *Journalism & Mass Communication Quarterly* 84 (3): 562–581. doi:10.1177/107769900708400310.
- Treadaway, Chris. 2010. "Why Newspapers Need to Heed Facebook, Now." *ReadWrite*, April 22. [http://www.readwriteweb.com/archives/why\\_newspapers\\_need\\_to\\_heed\\_facebook\\_now.php](http://www.readwriteweb.com/archives/why_newspapers_need_to_heed_facebook_now.php).
- Twitaholic. 2012. "Top Twitter User Rankings & Stats." Accessed March. <http://twitaholic.com/>.
- Twitter. 2009. "Twitter 101 for Business—A Special Guide." *Twitter 101*. <http://business.twitter.com/twitter101>.
- Twitter. 2011. "One Million Registered Twitter Apps." *Twitter Blog*, July 11. <http://blog.twitter.com/2011/07/one-million-registered-twitter-apps.html>.
- United States Securities and Exchange Commission. 2012. "Form S-1 Registration Statement." February 1. [http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm#toc287954\\_3a](http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm#toc287954_3a).
- Wolford, Josh. 2012. "Whitney Houston Death Broken by Citizen Twitter Journalists 42 Minutes before AP." *WebProNews*, February 13. <http://www.webpronews.com/whitney-houston-death-citizen-journalists-2012-02>.
- Zeigler, Todd. 2009. "Does Facebook Drive As Much Traffic As Twitter?" *The Brick Factory*, June 8. [http://www.bivingsreport.com/2009/does-facebook-drive-as-much-traffic-as-twitter/?utm\\_source=feedburner&utm\\_medium=feed&utm\\_campaign=Feed%3A+TheBivingsReport+%28The+Bivings+Report%29](http://www.bivingsreport.com/2009/does-facebook-drive-as-much-traffic-as-twitter/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+TheBivingsReport+%28The+Bivings+Report%29).

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