



UvA-DARE (Digital Academic Repository)

Social Media and Journalistic Independence

Poell, T.; van Dijck, J.F.T.M.

Published in:

Media independence: working with freedom or working for free?

[Link to publication](#)

Citation for published version (APA):

Poell, T., & van Dijck, J. (2014). Social Media and Journalistic Independence. In J. Bennett, & N. Strange (Eds.), Media independence: working with freedom or working for free? (pp. 182-201). (Routledge research in cultural and media studies; No. 69). New York: Routledge.

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <http://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Social media and journalistic independence

Thomas Poell and José van Dijck

You may cite this paper (page numbers correspond with published version) as:

Poell, Thomas. & José van Dijck (2014). Social media and journalistic independence. In *Media Independence: Working with Freedom or Working for Free?*, edited by James Bennett & Niki Strange. 182-201. London: Routledge.

8. Social media and journalistic independence

Thomas Poell and José van Dijck

Do social media, such as Facebook and Twitter, facilitate or even enhance journalism's democratic functions? Current research suggests they do. Prominent scholars portray social media as key drivers of an emerging news ecosystem, which revolves around public participation and democratic accountability (Benkler 2006; Jenkins, Ford and Green 2012; McNair 2006; Shirky 2008). Social platforms have been hailed as potential saviors of professional news production, allowing journalists to find new sources, engage directly with "the people formerly known as the audience," as well as trace their preferences and interests (Bruns 2008; Flew 2009; Gillmor 2004; Hermida 2011; Paulussen et al. 2007; Rosen 2006). Some scholars have argued that social media users and new computational techniques may relieve the press from part of its news reporting duties, leaving it free to concentrate on investigative journalism and quality news coverage (Anderson, Bell and Shirky 2012; Flew et al. 2012; Bruns 2011).

In the sections below, we argue that even if social media allow users to contribute information and observations to professional news production, these platforms do not in and of themselves facilitate journalism's proclaimed democratic role. In contrast to what most current research suggests, they are not *neutral* technologies that merely *enable* user activity. Instead, social platforms very much *shape* how users share information, curate news, and express their points of view, as well as how these activities—in the form of social media metrics—start to play a role in the production and dissemination of news. If the agency of social media users is inimically bound up with platform technologies, what does this mean for journalistic independence?

This chapter critically interrogates claims of user empowerment by exploring how social media technologies and data become entangled with news selection, production, and dissemination practices of major commercial news sites, such as *The Huffington Post*, as well as leading traditional newspapers, like the *New York Times* and *LA Times*. This inquiry reveals a general shift from editorial to algorithmic logic: from the judgments and choices of professionals to proceduralized machine choices (Gillespie 2014). We will show that this shift compromises, rather than enhances, democratic

public communication. More specifically, we argue that the very mechanisms through which social media user activity affects the news process threaten both independent journalism and informed public debate. Instead of enhancing journalistic freedom and autonomy, the rise of social media intensifies the commercial pressures on journalistic independence.

A promise of renewal

Throughout the twentieth century, journalism's role in democratic politics has primarily been associated with professional news media, also labeled as the Fourth Estate. Two partly overlapping Fourth Estate models have been formulated. The first model, based on an educational ideal, views the press as a vehicle for public debate in which different ideas and perspectives are exchanged until the common good prevails (McChesney 2004; Starr 2004). This ideal, which originates from nineteenth century Britain, informed Jürgen Habermas' highly influential conceptualization of the bourgeois public sphere (Calhoun 1992; Habermas 1991). The second model, based on a representative democratic ideal, prescribes that news media should defend the public's interests, providing them with vital political information and keeping the government accountable to the public (Kovach and Rosenstiel 2001; Muhlmann 2008).

What both models have in common is the idea that the press links representative government to its constituents, either by promoting public debate or by providing critical checks on government (Hampton 2010). To fulfill these functions, it is crucial that the press operates independently from both political and economic power. However, it is precisely at this junction where problems arise. Critics have pointed out that mainstream news media are strongly affected by commercial forces, as also becomes clear from Jukes and Allan's discussion of the Leveson Inquiry in chapter 1 of this volume. Commercial pressure especially results from the incorporation of news media in to large conglomerates and the constant necessity to maximize audience share and advertising revenue (McChesney 1999; Underwood 2001). Mainstream reporting is also shaped by political pressure, which in liberal democracies is exercised through journalists' structural dependency on government sources for vital political information (Barnett and Gaber 2001; Bennett, Lawrence, and Livingston 2007; Tumber and Palmer, 2004; Schudson 1978).

Growing public awareness of these political and commercial pressures has led to a decline in the cultural authority of professional journalists, a decline that has accelerated over the past decade as a result of the rise of social media. Many theorists see the development of social media-driven news practices as part of a larger shift "from a culture shaped by the logics of broadcasting toward one fostering greater grassroots participation" (Jenkins, Ford and Green 2012, xiv; see also Bruns 2008; Benkler 2006;

Castells 2009; Jenkins 2006; Shirky 2008). In journalism, this shift is said to take the form of a transition from industrial news production revolving around “gatekeeping” by professional editors to a process of “gatewatching,” based on “open news story development” and the “communal evaluation” of news coverage (Bruns 2008, 71-76).

In light of the perceived changes in the news landscape, the ‘participatory culture’ authors suggest that it is vital to rethink how journalism’s key democratic functions should be fulfilled. They question the traditional role of the press as the Fourth Estate—the view that professional news organizations are the prime carriers of public debate and the key government watchdogs. Some theorists argue that instead of expecting the press and professional journalists to fulfill all these functions, it is time to shift the focus to the news ecosystem as a whole. As Anderson, Bell and Shirky (2012, 75-76) contend: “We must move away from pinning our democratic hopes entirely on the Fourth Estate conception of the press. Public accountability must come, in part, from the networked news ecosystem itself.” To illustrate that this ecosystem already fulfills key democratic functions, scholars point to striking examples of social media users collectively reporting on and curating unfolding news events, such as natural disasters, political scandals, and major protests (Bruns 2011; Hermida 2010; Murthy 2011; Shirky 2008, 2011). Others have demonstrated that data from social media and other online platforms opens up new vistas for the analysis of user engagement in a system where audience measurement plays an increasingly important role in the news process (Anderson 2011; Usher 2013).

While we agree with the assessment that it is crucial to shift the focus from professional news organizations as pillars of the Fourth Estate to the news ecosystem as a whole, we are skeptical of the idea that social media technologies and the engagement of their users enhance public debate and facilitate democratic accountability. We are particularly critical of the assumption that online systems in general, and social media specifically, act as neutral technologies that enable users to participate in the news process and directly translate social media data through new analytic methods. As Gillespie (2010: 352) points out, such an understanding of social media has been developed through the notion of the ‘platform’ as a descriptive term for digital media intermediaries, which supposedly provide “open, neutral, egalitarian and progressive support for activity.” Resonating with the 1990s idea of the independence of cyberspace, as discussed by Daniel Kreiss in chapter four, the activity on social ‘platforms’ is presented by scholars, journalists, and most prominently by the social media corporations themselves as free from the kinds of governing mechanisms that characterize the ‘old media’.

However, social media are far from neutral platforms. Through their technological architectures and through the values and interests inscribed in these architectures, social media very much steer user activity as well as the processes in which publics are constructed and relevance is determined

(Chun 2011; Gillespie 2014; Hands, Elmer, Langlois 2013). Instead of providing open, neutral, egalitarian platforms for social interaction, social media introduce new techno-commercial mechanisms in public communication, which intensify rather than neutralize the commercial strategies of the mass media (van Dijck and Poell 2013).

Building on these insights, the following sections explore how social media shape the contemporary news ecosystem. We will start by reviewing how social media have become entangled with the processes of news production, dissemination, and reception. Drawing from this review, we will subsequently demonstrate how social media introduce techno-commercial mechanisms in these processes that potentially *undermine* journalism's ability to work with freedom and fulfill key democratic functions of independent media.

Making news “social”

To understand how social media shape today's news, it is vital to see how news organizations, journalists, and users have engaged with platforms such as Facebook, Twitter, and Google in the production, dissemination, and reception of news. Mainstream news organizations and professional journalists have played a particularly important part in this regard. Today, virtually every news organization in the US, as well as in other parts of the world, has a range of Twitter accounts and Facebook Pages. Moreover, most journalists employ a variety of social media in their daily routines, but their efforts are largely focused on disseminating content (Blasingame 2011; Greer and Ferguson 2011). Surprisingly, this one-way communication approach is not only typical for news organizations, but also for the majority of journalists (Artwick 2013; Hedman and Djerf-Pierre 2013; Lasorsa, Lewis and Holton 2012). Except for a few prominent reporters, who are constantly twittering and blogging, most journalists use social media “to gather the news and find sources, and then report the news and drive traffic to websites” (Hermida 2013, 6). Thus, most superficially, making news ‘social’ refers to the process of increasing news volumes through established social media platforms.

These content distribution efforts are certainly starting to pay off. The Pew Research Center observes a rapid growth in the number of Americans that follow the news through social media. In 2010, nine per cent of the total population received their news through social platforms. Two years later this share had risen to 19 per cent (Pew 2013). Research by NewsWhip, a news aggregation and analysis service, confirms this trend. Tracing the number of Facebook likes, shares, and comments for news articles from the top 50 online publishers worldwide, NewsWhip detects a huge increase: in August 2013 the content of the top publishers generated 117 million Facebook interactions each month, compared with just

45 million at the same point in 2012 (Quigley 2013). NewsWhip's research also shows that online-only platforms BuzzFeed and *The Huffington Post* have been particularly successful in generating user engagement. BuzzFeed can be considered the "most social" publisher with more than 13 million articles shared, liked, and commented on in February 2014, directly followed by *Huffpo* with over six million interactions. The top traditional news organizations, led by CNN, BBC, and the *New York Times*, each generate about two million interactions (NewsWhip 2014).

While these numbers of news activity through social media are impressive, most people who receive news digitally still get it through other means. In a survey specifically focused on these digital news consumers, conducted in January 2012, Pew found that only 9 per cent primarily gets news through Facebook or Twitter recommendations, whereas 36 per cent get it by going directly to a news portal, 32 per cent by querying a search engine, and 29 per cent by using an app or news aggregator (Mitchell and Rosenstiel 2012). Hence, social media have certainly not yet replaced more 'traditional' ways of accessing news. Moreover, like social media, portals and search engines come attached with specific metrics to evaluate how news content is performing, as well as with particular tactics to maximize the circulation of this content. As will become clear, these tactics and metrics affect how journalism can fulfill its democratic functions.

It is not just news organizations that have invested in online news dissemination strategies to reach and mobilize millions of users. Social media platforms and their corporate owners have also strongly stimulated this development. Over the past few years, social media platforms have created guides and instructions specifying in detail how news organizations can maximize audience engagement with their content. For example, in its guide for journalists and newsrooms, Twitter highlights that user engagement grows when journalists include hashtags and URLs in their tweets, and when they regularly post updates on unfolding news events (Twitter 2013a). Facebook, on its 'Media on Facebook' portal launched in May 2013, also urges news organizations to share breaking news updates. Moreover, it advises news organizations to visually enhance their stories with photos and videos, and to use 'Facebook Insights' to "learn what content resonates with your audience, and optimize how you publish to your audience to grow your reach and engagement" (Lavrusik 2013a).

At the same time, social media corporations have technologically designed their platforms to optimize the distribution of content and boost social traffic. While most of these technological developments have not been specifically targeted at news, they strongly affect how news circulates. Most crucial has been the creation of social buttons, allowing users to 'share,' 'like,' 'tweet,' and 'plus' content from across the web (Gerlitz and Helmond 2013). In 2006, the social news websites, Digg and Reddit were among the first to develop such buttons, which can be placed on any website, enabling

users to share content from their sites with aggregating sites. Following this example, Facebook quickly introduced a share button in 2006. Other platforms launched similar buttons in subsequent years. Today, a selection of social buttons—always including those of Facebook and Twitter—can be found on virtually every major news site. These social plugins allow news content to circulate far and wide. For example, in the case of Facebook, as Gerlitz and Helmond (2013: 6) have pointed out, clicking a share or like button not only makes external web content available for ‘friends,’ but also for further liking and commenting within the Facebook platform itself.

Second, social media corporations have developed a range of technologies to promote content to be shared via their platforms. Because of such technologies, Twitter has morphed into a prominent real-time news network (Bruns and Highfield 2012; Hermida 2013; Newman, Dutton, and Blank 2012). Particularly vital for the news process are the hashtag and retweet functionality as well as Twitter’s trending topic feature. The practices of retweeting and hashtagging were originally developed by users and only later implemented in the platform’s architecture. Hashtags are important for journalism, as they allow users to organize and access the real-time stream of reports and comments on unfolding news events. Retweeting, in turn, enables users to promote the posts they find relevant (Poell and Borra 2012). Both functions play a key role in Twitter’s trending topic feature, which algorithmically identifies “topics that are immediately popular” (Twitter 2013b). As we will explain, trending topics play a central but also problematic role in the news selection process. By developing these information-organizing technologies, Twitter has clearly positioned itself as a news platform rather than just a transmission channel comparable to the telephone or telegraph (van Dijck 2012).

While Facebook has situated itself, both technologically and rhetorically, as a platform for social networking and personal conversation, it has started to make an effort to also facilitate and stimulate the dissemination of news. Beyond the recently launched Media on Facebook portal, the corporation has implemented some of the same news-oriented features in its architecture as Twitter. In 2013, Facebook integrated the hashtag functionality into its architecture, allowing users to click on a hashtag to access all related posts on a topic or event (Lindley 2013). In the same year, the company also announced that it would redesign its News Feed, separating streams of content into multiple categories, including All Friends, Photos, Music, and Following (Lavrusik 2013b). The Following feature is particularly important to our inquiry, since it is through this category that users receive news. With this redesign Facebook aims to consolidate its position as the leading social network for personal exchanges, while at the same time trying to become a more dominant force in the distribution of news. As Mark Zuckerberg stated: “We want updates from our friends, but we also want updates from publications” (Robertson 2013).

News organizations and social platforms are rapidly moving towards each other, mutually articulating each other's strategies and activities in the news process. The following sections will explore how the increasingly central role of social media in this process challenges journalism's proclaimed democratic functions. First, we discuss the tension between social media's technological mechanisms and journalism's democratic role. Second, we interrogate how these mechanisms become involved in the production and dissemination of news at mainstream news organizations.

Algorithms and metrics

The rise of social media means that the ability to select news has partly shifted from professional journalists and news organizations to social media users, who select their own media diet interacting with their platforms and each other. As mentioned earlier, some theorists have interpreted this development as a democratization of the news process. User empowerment is, however, only half of the story. The mounting significance of social media platforms in the production and circulation of news means that users' input becomes encapsulated in technological configurations, which are neither controlled by news organization nor by social media users, but by these platforms' owners.

This development creates two interrelated problems for civic journalism—that is journalism as a catalyst for civic engagement (Rosen 1996). First, instead of merely connecting users with news content shared by friends, social media *select* and *prioritize* content by algorithmically translating user activity into 'most relevant' or 'trending' topics. What is relevant or trending is calculated through a combination of signals taken into account by the platform's algorithms (Bucher 2012; Gillespie 2012; van Dijck and Poell 2013). By including and excluding particular signals and giving them relative weight, algorithms impose a new knowledge logic, which "depends on the proceduralized choices of a machine, designed by human operators to automate some proxy of human judgment or unearth patterns across collected social traces" (Gillespie, 2014, 192). Algorithmic logic can be contrasted with traditional editorial logic, which is based on the judgments and choices of professional journalists. The question is how social media algorithmically shape the selection and circulation of news: 'editorial' choices appear hidden in algorithms. Building on documentation provided by social media corporations, interviews in trade magazines and newspapers with software engineers, and reverse engineering experiments, we can trace how the major social media platforms algorithmically sort the news.

We start by examining Facebook's influential news feed algorithm. Facebook includes both signals of personal interest and signals from its global user base in its algorithmic design. In a recent interview, Lars Backstrom, one of Facebook's News Feed engineers, made clear that the platform attempts

to distinguish between different levels of affinity. It measures how close each user is to friends, people they follow, as well as to Pages and Groups. This measurement is based on personal interactions, but also on global interactions, which can outweigh personal signals. Backstrom explains: “For example, if we show an update to 100 users, but only a couple of them interact with it, we may not show it in your News Feed. But if a lot of people are interacting with it, we might decide to show it to you, too” (McGee 2013). Facebook is trying to strike a balance between private conversation and public communication, between mechanisms of personalization and popularity. In this algorithmic balancing act, time decay also plays a crucial role—recent interactions weigh heavier than older ones—allowing Facebook to identify and highlight trending topics to its users.

Twitter’s trending topic algorithm is equally important to the news process. To understand how this algorithm identifies trends, it is helpful to briefly look at the controversy around Twitter’s trending topics in the fall of 2011. In this period, the Occupy movement heavily relied on Twitter for its communication purposes. Yet, the movement’s dominant hashtags, #OccupyWallStreet and #OccupyBoston never trended in New York and Boston. Surprisingly, these hashtags did trend in other parts of the country, whereas less popular Occupy-related terms and hashtags made it into the trending topic lists of the two cities. Suspicious protestors subsequently accused Twitter of manipulating its trending topics. However, as Gilad Lotan has demonstrated through a reverse engineering experiment, no censoring appears to have taken place; ostensibly it was the “outcome of a purely algorithmic mechanism.” To understand this, it is vital to notice that trending topics are not simply determined on the basis of the volume of tweets containing a particular hashtag or term. Instead “the algorithm adapts over time, based on the changing velocity of the usage of the given term in tweets. If we see a systematic rise in volume, but no clear spike, it is possible that the topic will never trend” (Lotan 2011). On its blog, Twitter explains: “Topics break into the Trends list when the volume of Tweets about that topic at a given moment dramatically increases” (Twitter 2010).

In sum, both Facebook and Twitter’s news oriented algorithms clearly privilege breaking news stories in order to trigger user engagement and boost social traffic. Not coincidentally, this is exactly what the two corporations advise journalists and news organizations to do when using their platforms to disseminate content. A heavy predilection towards breaking and engaging news does not bode well for the dissemination of news content on complex political issues that play out over longer periods of time. It appears unlikely that complex and protracted content will be identified as ‘relevant’ by social media’s algorithms. Evidently, social media’s sorting mechanisms do not necessarily correspond with journalism’s role as a facilitator of informed public debate and democratic accountability.

The second challenge to journalism’s democratic functions comes from the way in which social media boost the role of audience metrics in the news process,

which has become increasingly central as a result of the development of online communication. While news producers, especially those depending on advertising, have always relied on third-party measurement firms to monitor viewers, readers, and listeners, the networked infrastructure has rendered the quantified audience a reality (Anderson 2011; Napoli 2011; Usher 2013). As every online action generates a data trail, a wealth of information has become available, spawning a variety of measurement services. Traditional firms, such as Nielsen NetRatings and comScore, measure online media use by installing tracking software on the computers of a group of carefully selected internet users, whose habits are extrapolated to reflect a broader population. Companies such as Google Analytics, Omniture, Hitwise, and Quantcast track audiences through server data from news websites or traffic data from Internet Service Providers (ISPs) (Graves and Kelly (2010, 12).

Social media add a particularly valuable set of metrics to this data culling. These metrics not only provide insight in how people engage with available news content through social media, but also steer people's current news interests; in other words, they simultaneously measure and massage what topics are trending. Facebook and Google+, who enforce a real name policy, have the ability to combine these data with demographic details—such as age, gender, location, and relational status—as well so-called post-demographic data concerning users' tastes, interests, and sentiments (Cheney-Lippold 2011; Rogers 2008). The rise of social media, as Andrejevic (2013, 91) makes clear, opens up the realm of sentiment and emotion to “automated forms of mass quantification, collection, and mining.” While social media metrics are not necessarily representative of the larger population, they do, given the large number of social media users, cover a vital part of the online audience. Consequently, news organizations are particularly interested in social media metrics as instruments for targeting specific audiences through content personalization, and marketing these to advertisers.

Social media corporations, for their part, have made an effort to cater to the data needs of the news industry as well as those of other industries. Both Facebook and Twitter offer their own analytic tools to news organizations allowing them to track audiences' content engagement and to know the demographics of their followers. Twitter analytics tool, launched in 2013, yields basic metrics concerning numbers of mentions, retweets, and replies, as well as the gender, location, and interests of followers (Twitter 2013c). Facebook Insights is more advanced. It provides Facebook page owners not only with detailed metrics concerning the number of page likes, unique users engaging with the page, and the demographics of these users, but also informs them when page followers were online each day of the week, and what type of post—e.g. 'status update,' 'photo,' or 'video'—generated the highest reach and engagement (Lee 2013). In addition, Insights offers demographic data on Facebook users' engagement with

external websites, encouraging these sites to “optimize your content for sharing and better tailor your content to your audience” (Facebook 2013).

Especially important for the production of news are the social media data services that show the real-time news interests of users. For years, Twitter has been delivering such services to the industry through its ‘data resellers’ Topsy, Gnip, DataSift, and NTT DATA (Dwoskin 2013). These resellers have direct access to every tweet ever sent through the platform. Topsy, for example, provides “instant social insights” to news organizations and other clients concerning the frequency of “any term” or “top related terms;” they also identify the most influential users for any topic. Topsy’s metrics tell news organizations how “positive” users perceive a topic or “your brand,” “where your topic is active,” and what is trending in any given location and date-range (Topsy 2013). In September 2013, Facebook also released two search tools specifically aimed at news organizations and marketers, yielding data on real-time social conversations triggered by news events (Goel 2013). One of the tools allows news organizations to perform keyword searches through public Facebook posts, while the other enables searches through private posts. The latter only pulls up aggregate anonymized data, but it does play to Facebook’s strength by providing the basic demographic details of posters and commenters.

All in all, social media greatly contribute to the quantification of audiences and content. These metrics allow the news industry to trace the demographic composition and interests of individual users and how they engage with news content in order to target them more precisely. Such metrics-driven news production clearly compromises journalistic independence and, consequently, journalism’s ability to function as the Fourth Estate, as it pressures journalists to cater to the interests and preferences of audiences instead of focusing on issues of general public concern. Of course, how this works out in practice very much depends on the operations of news organizations, which still produce most of news.

The operations of news organizations

Over the past decade, news organizations have become intimately familiar with web metrics and processes of algorithmic sorting. Graves and Kelly (2010) point out that given the abundance of web data and the different methods used to track audiences on the basis of this data, news organizations typically subscribe to a number of audience measurement services. They contend that web metrics have become an integral part of American newsrooms’ daily routines. Since the early 2000s, increasing numbers of Internet users have been accessing the news through search engines, resulting in a variety of search engine optimization (SEO) strategies developed specifically for the news industry. SEO and SMO (social media data and optimization) tactics are now fully integrated into most major news operations.

While various studies arrive at different observations on how web metrics and SEO affect newsroom decision-making, they all agree that audience-tracking data and SEO strategies have become a central aspect of news production (Anderson 2011; Dick 2011; Graves and Kelly 2010; Lee, Lewis, and Powers 2012; MacGregor 2007; Usher 2013; Vu 2013). Even though some journalists ignore these metrics or even actively resist them, it is clear that quantified audience tracking systematically pressures journalists and editors to be aware of, and adapt to, consumer tastes. Audience signals, either in the form of aggregate metrics or active users comments and posts, are becoming central to contemporary news production.

Anderson (2011) argues that as a result of this development a fundamental change in the professional self-perception of journalists is evolving. Drawing from ethnographic studies at two local US newspapers and a related news aggregating website, he traces this change in the proliferating newsroom “rhetoric about active, empowered, generative audiences, a rhetoric that emerges in parallel to the increasing reliance on news metrics” (Anderson 2011, 564). He maintains that even though quantified and actives audiences are often regarded as contradictory forces, they may not be incongruous at all. In the newsrooms where he did his fieldwork, Anderson observed that news consumers were discussed as “creative, active participants in the news making process that needed to be simultaneously empowered, catered to, and captured for analytical purposes.” He concludes that “audience empowerment ... might be seen as laying the groundwork for a deeper reliance on audience metric data as a determining faction in news production” (ibid.).

We consider such interpretation of the relationship between web metrics and audience emancipation to be highly problematic. It is symptomatic of the dominant current discourse, in which metrics are presented as natural traces or signals of audiences’ interests and where social media are understood as neutral facilitators of these interests. As discussed in the second section of this chapter, not only do prominent scholars buy into the rhetoric of web metrics as audience empowerment, but so do editors and journalists. Such understanding of platforms as neutral facilitators of web conversation systematically understates the central role of social media platforms in processes of news selection and production. The following comment by *New York Times* editor Jim Roberts is typical in this regard: “To me the benefit of social is not just increasing page views but as a way of developing a more personal connection with your audience. You can talk to them, and they can talk to you” (Glaser 2011).

As we have stated earlier in this chapter, social media technologies are far from neutral facilitators and neither are data ‘natural’ footprints of users. Social media do not simply enable user participation in the news, but algorithmically privilege particular user signals and types of content. Social media’s sorting mechanisms push breaking and entertaining news, provoking bursts of user engagement. In addition, it is important to recognize that the social media practices through which users participate in the

news process, such as ‘sharing,’ ‘retweeting,’ ‘hashtagging,’ ‘liking,’ and ‘following,’ are very much technologically shaped. These practices constitute the ways in which social media steer user participation. Therefore, social media metrics should not be seen as natural reflections of user interests and perceptions, but rather as algorithmic and technological interventions. Social media platforms effectively act as interfaces between news producers and the audience, shaping what content users get to see and how these users can engage with this content, and, subsequently, translating these mediated forms of user interaction into metrics useful to news organizations. Instead of enabling a direct dialog between the news industry and “the people formerly known as the audience,” social media insert a technological layer that very much structures their exchanges. As such, both audiences and news organizations become *dependent* on social media platforms.

The impact of social media on the day-to-day operations of news organizations, and ultimately their ability to work as an independent Fourth Estate, becomes evident when we compare how both print-based newsrooms and web-born news outlet deploy major platforms to trigger audience traffic around news content. Over the past few years, print-based news organizations and their journalists have increasingly relied on social technologies for disseminating content. However, this is not to say that simply all news content is tweeted or posted on Facebook, or that social media ‘conversations’ spring up around any type of content. News producers are becoming increasingly apt at selecting and developing content that triggers social media engagement. In a 2012 interview, Alexis Mainland, social media editor at the *New York Times*, contended that “the cliché that a picture is worth 1,000 words rings especially true on social media sites. (...) We regularly find that images we share on Facebook are more popular and engaging than text” (Margolis 2012). Mainland makes clear that the *Times* carefully selects “sharable” content, which is expected to generate user traffic. Besides photos, these include “personal stories” and “breaking news.”

Whereas the *New York Times* selects items primarily from its available content, the *Los Angeles Times* has taken its SMO strategies one step further by developing and promoting content on its website specifically aimed at triggering social media buzz. The newspaper has intensified the development of its website’s blog section, where it presents breaking news in an ‘informal and conversational’ manner. Frequently updating its range of blogs, such as *LA Now* and *Politics Now*, the *LA Times* gives readers the latest updates on unfolding new events, often without providing the supporting context. This live-blogging approach is combined with a deep integration of Facebook’s commenting technology. Readers can leave comments via their Facebook login, which means that their comments are cross-posted onto their Facebook profile. As a result of these strategies, the *LA Times* saw a widely celebrated 450 per cent increase in referrals from Facebook in 2011 (Ellis 2011; Fisher 2011).

The examples of the *NY Times* and *LA Times* suggest that the impact of social media on the operations of news organizations, even if it does not directly influence editorial decision making, actually shapes the style of journalism. The two newspapers' tactics to emphasize breaking news and boost social media user traffic is becoming widespread among mainstream media. Like the *LA Times*, a growing number of news organizations have embraced liveblogging. Many of these organizations and their journalists use social platforms, especially Twitter, to alert followers concerning breaking news and to engage them in an informal personal manner (Blasingame 2011; Greer and Ferguson 2011; Hermida 2013). Evidently, this is precisely the type of news activity rewarded by Facebook and Twitter's news oriented algorithms, and in line with these companies' instructions given to newsrooms.

While SMO strategies shape content selection, production and distribution at the *NY Times* and *LA Times*, they are extremely moderate compared to the tactics employed by web-born news outlets such as *The Huffington Post* (*HuffPo*). Rather than pursuing online user engagement as an additional objective besides news reporting, the news aggregator has turned SEO and SMO strategies into its core business, defining this organization's news operation in a number of ways.

First, *HuffPo* has so-called traffic editors whose job it is to scour the Web for popular search terms and trending social media topics, and make article recommendations on the basis of these terms and topics. A key component of this tactic is to develop real-time content during major unfolding news events, such as disasters or scandals (Shontell 2010). Jonah Peretti, one of the site's co-founders, explains how *HuffPo* applies a "swarming tactic" to become the top result on Google for trending topics: "when you think about something like Heath Ledger dying, *Huffington Post* would have five people writing a story, seeing what everyone else is writing and seeing every single breaking news. So aggregating from other sources, linking to other sources." This tactic results in a news page that does particularly well on search engines as it links to authoritative sources and is frequently updated. Peretti points out that existing SEO tactics were later enhanced by the introduction of Twitter and Facebook modules and data streams, ensuring continuous updating of breaking news pages (Huey, Nisenholtz, and Sagan 2013).

Second, in order for its content to go viral—that is, to circulate widely on social networks and receive a lot of comments and hits—*The Huffington Post* develops a massive stream. In 2010, Paul Berry, former chief technology officer (CTO), revealed that the site produces between 600 and 1,000 pieces of original content every day. Of all this content, between 10 to a 100 articles go viral. According to Berry, *HuffPo*'s content management system is completely tailored to "capture the content that is going viral, and it is constantly optimized to double-down on whatever is working" (Shontell 2010). This strategy corresponds with the overall approach to the news process by AOL, the corporation that bought *HuffPo* in February 2011. A

leaked document titled *The AOL Way* specifies how AOL plans to maximize its audience reach (Carlson 2011). The document models how day-to-day news production and distribution should take place on all AOL sites—a process that starts with a ‘Demand Module’ identifying trending topics. Next, the traffic and revenue potential of a topic is calculated before the format gets decided. After the content has been produced, user engagement gets triggered through Twitter, Facebook, Reddit, Digg, and AOL discussion boards. The document stresses that for each item of content, it is important to “ensure that social media/sharing buttons serve as prominent calls to action.” Finally, the results of this first dissemination effort are fed back into the process to determine whether it is profitable to continue promoting particular content (ibid.). Social traffic has become a goal in itself.

Third, the *Huffington Post* further promotes social traffic by cultivating user comments and these efforts have paid off hugely. In 2012, the site received on average 25,000 comments every hour, with some content generating +100,000 comments (Sonderman 2012). Of course, these numbers first of all reflect *HuffPo*’s successful news production process built around trending topics and popular search terms as well as its viral distribution strategies. The large number of comments certainly also results from the way in which the site makes clever use of social media by allowing users to comment via their Facebook or Twitter login, thereby cross-posting these comments to the respective platforms. Yet another contributing factor is the site’s intricate reward system, which stimulates activity by handing out badges and privileges to users for frequently commenting on content and for sharing *HuffPo* stories on Facebook and Twitter. The news site awards a range of badges, including the ‘networker badge,’ “based on a commenter’s popularity among other HuffPost commenters”, the ‘superuser badge’ for the amount of “HuffPost content the person shares outside of the platform,” and the ‘community moderator badge,’ acknowledging the “commenter’s reliability in tagging inappropriate material” (Jones and Altadonna 2012: 250). These strategies, in turn, enabled *HuffPo* to ‘personalize’ the large amounts of comments, showing the comments of ‘friends’ and followers’ above those of other users.

Our analysis of newspaper and born-digital newsroom practices shows how social media metrics and algorithms affect their daily operations. As news organizations embrace social technologies to disseminate content and enhance their audience reach, social media logic begins to work throughout the operations of these organizations. By selecting ‘sharable’ content, focusing resources on real-time forms of journalism, and by organizing, in the case of the *HuffPo*, news production around trending topics, news organizations are effectively retooling their selection mechanisms to fit social media algorithms. In this respect, the news process is shifting from an editorial logic to an algorithmic logic, bringing with it new forms of dependency. Evidently, we are currently witnessing only the beginning of such shift. The majority of news organization, including the *NY Times* and *LA Times*,

still mostly operates on the basis of an editorial logic. Nevertheless, the extremely rapid growth of algorithm-driven and metrics-driven news organizations, such as the *Huffington Post*/AOL and BuzzFeed, suggests that change could come quickly.

Conclusion

Independent journalism was once thought to mean “independent from political and economic power” and “representing the interests of citizens.” The Fourth Estate, according to its critics, had already compromised its independent position by aligning news reporting with economic interests and by succumbing to political power. The emergence of online user-driven platforms has been depicted as the antidote to this state of affairs, raising the prospect of neutral technologies ‘measuring’ and thus reflecting the people’s concerns. However, two problematic claims underlie the idea of social media enhancing journalism’s democratic potential: that users are simply empowered by platforms and that platforms impartially reflect audience’s concerns and opinions. Both mutually enhancing fallacies have gained ground in part of the academic world and in the daily practices of news organizations, making them more, not less, dependent on commercial mechanisms.

We have argued in this chapter that user news practices and personalized content are shaped by social media’s algorithms and translated as aggregate metrics to news organizations. In turn, these organizations, operating on the principle of attracting audiences for advertisers, can hardly afford to neglect social platforms if they want to survive in an online environment. Moreover, the commercial model of most news organizations enhances the logic propelled by social media to boost traffic by focusing on popular and breaking news to trigger users’ attention. The strategies pushed by social media algorithms are, in this regard, not very different from those of the penny press in the late 1900s or the popular press in the 1980s, which were equally predicated on pushing large volumes of ‘fast’ news. What is more troubling is the tendency of leading news organizations, including the *NY Times* and *LA Times*, to adopt a rhetoric that equates algorithmically elicited user activity to audience empowerment, implying that ‘social traffic’ intrinsically enhances the democratic power of citizens. Social media users cannot be equaled to citizens or to producers of news. Much rather, they are the products of algorithmic steering, pushed towards particular content and sold to advertisers.

Independent journalism, we propose, needs not only to reflect on its independence from commercial and political forces, but also from social platforms and their users. The production of news is clearly impacted by the algorithmic predilections inscribed in search engines and social media, which drive users towards particular content. Making news ‘social’ may not

be a viable means to enhance the democratic character of the news process. To the contrary, social media logic may take over the last part of editorial autonomy that professional journalists ever held: the power to select content, items and issues regardless of their popularity amongst (mass) audiences and regardless of the particular interests of specific user aggregates. As such, this logic undermines journalism's ability to fulfill its key democratic functions of keeping governments accountable and facilitating informed public debate.

References

- Anderson, C. W. (2011) "Between creative and quantified audiences: web metrics and changing patterns of newswork in local US newsrooms," *Journalism* 12, 5: 550-566.
- Anderson, C. W., Bell, E. and Shirky, C. (2012) *Post-Industrial Journalism: Adapting to the Present—A Report*, Columbia Journalism School.
- Andrejevic, M. (2013) *InfoGlut*, New York: Routledge.
- Artwick, C. G. (2013) "Reporters on Twitter: product or service?," *Digital Journalism* 1, 2: 212-228.
- Barnett, S., and Gaber, I. (2001) *Westminster Tales: The Twenty-First-Century Crisis in Political Journalism*, London: Continuum international publishing group.
- Benkler, Y. (2006) *The Wealth of Networks: How Social Production Transforms Markets and Freedom*, New Haven: Yale University Press.
- Bennett, W. L, Lawrence, R. G. and Livingston, S. (2008) *When the Press Fails: Political power and the News Media from Iraq to Katrina*, Chicago: University of Chicago Press.
- Blasingame, D. (2011) "Gatejumping: Twitter, TV news and the delivery of breaking news," *#ISOJ Journal* 1, 2. <http://online.journalism.utexas.edu/ebook.php>.
- Bruns, A. (2008) *Blogs, Wikipedia, Second Life, and Beyond: From Production to Prodsusage*, New York: Peter Lang.
- Bruns, A. (2011) "Gatekeeping, gatewatching, real-time feedback: new challenges for journalism," *Brazilian Journalism Research* 7, 2: 117-136.
- Bruns, A. and Highfield. T. (2012) "Blogs, Twitter, and breaking news: The prodsusage of citizen journalism," *Prodsusing Theory in a Digital World: The Intersection of Audiences and Production in Contemporary Theory* 80: 15-32.
- Bucher, T. (2012) "Want to be on the top? Algorithmic power and the threat of invisibility on Facebook," *New Media & Society* 14, 7: 1164-1180.
- Calhoun, C. J. (ed) (1992) *Habermas and the Public Sphere*, Cambridge, MA: MIT press.
- Carlson, N. (2011) "Leaked: AOL's master plan," *Business Insider*, February 1. Accessed October 15, 2013. <http://www.businessinsider.com/the-aol-way>
- Castells, M. (2009) *Communication Power*, Oxford: Oxford University Press.
- Cheney-Lippold, J. (2011) "A new algorithmic identity soft biopolitics and the modulation of control," *Theory, Culture & Society* 28, 6: 164-181.
- Chun, W. H. K. (2011) *Programmed Visions: Software and Memory*, Cambridge, MA: The MIT Press.
- Dick, M. (2011) "Search engine optimisation in UK news production," *Journalism Practice* 5, 4: 462-477.
- Dwoskin, E. (2013) "Twitter's data business proves lucrative," *The Wall Street Journal*, October 7. Accessed October 14, 2013. <http://online.wsj.com/news/articles/SB10001424052702304441404579118531954483974>

- Ellis, J. (2011) "Traffic report: Why pageviews and engagement are up at Latimes.com," *Nieman Journalism Lab*, August 16. Accessed October 14, 2013. <http://www.niemanlab.org/2011/08/traffic-report-why-pageviews-and-engagement-are-up-at-latimes-com/>
- Facebook. (2013) *Insights*. Accessed October 15, 2013. <https://developers.facebook.com/docs/insights/>
- Fisher, L. (2011) "Who says social media can't bring you traffic? The LA Times shows how it's done," *Simply Zesty*, August 18. Accessed October 12, 2013. <http://www.simplyzesty.com/Blog/Article/August-2011/Who-says-social-media-can-t-bring-you-traffic-The-LA-Times-shows-how-it-s-done>
- Flew, T. (2009) "Democracy, participation and convergent media: Case studies in contemporary online news journalism in Australia," *Communication, Politics & Culture* 42, 2: 87-109.
- Flew, T., Spurgeon, C., Daniel, A. and Swift, A. (2012) "The promise of computational journalism," *Journalism Practice* 6, 2: 157-171.
- Gerlitz, C., and Helmond, A. (2013) "The like economy: Social buttons and the data-intensive web," *New Media & Society* 15, 8: 1348-1365.
- Gillespie, T. (2012) "Can an algorithm be wrong?" *Limn* 2. <http://limn.it/can-an-algorithm-be-wrong/>
- Gillespie, T. (2010) "The politics of 'platforms,'" *New Media & Society* 12, 3: 347-364.
- Gillespie, T. (2014) "The relevance of algorithms," in T. Gillespie, Boczkowski, P. and Foot, K. (eds.), *Media Technologies*, 167-194. Cambridge, MA: MIT Press.
- Gillmor, D. (2004) *We the Media: Grassroots Journalism by the People, for the People*. Sebastopol, CA: O'Reilly.
- Glaser, M. (2011) "Social media grows at NY Times, but home page remains king," *PBS*, January 13. Accessed October 17, 2013. <http://www.pbs.org/mediashift/2011/01/social-media-grows-at-ny-times-but-home-page-remains-king013/>
- Goel, V. (2013) "Facebook offers new windows into social conversation," *New York Times*, September 9. Accessed October 12, 2013. http://bits.blogs.nytimes.com/2013/09/09/facebook-offers-new-windows-into-social-conversation/?_r=0
- Graves, L. and Kelly, J. (2010) "Confusion online: Faulty metrics and the future of digital journalism'," *Tow Center for Digital Journalism, Columbia University Graduate School of Journalism*, Accessed on September 10, 2013. http://www.journalism.columbia.edu/system/documents/345/original/online_metrics_report.pdf
- Greer, C. F. and D. A. Ferguson (2011) "Using Twitter for promotion and branding: A content analysis of local television Twitter sites," *Journal of Broadcasting & Electronic Media* 55, 2: 198-214.
- Habermas, J. (1991) *The Structural Transformation of the Public Sphere: An inquiry into a category of bourgeois society*, Trans. by T. Burger. Cambridge, MA: The MIT press.
- Hampton, M. (2010) "The Fourth Estate ideal in journalism history," In *The Routledge Companion to News and Journalism*, S. Allan (ed.), 3-12. Abingdon, UK: Routledge.
- Hands, J., Elmer, G. and Langlois, G. (eds.) (2013) "Platform politics," *Culture Machine* 14.
- Hedman, U. and Djerf-Pierre, M. (2013) "The social journalist: Embracing the social media life or creating a new digital divide?," *Digital Journalism* 1, 3: 368-385.
- Hermida, A. (2010) "Twittering the news: The emergence of ambient journalism," *Journalism Practice* 4, 3: 297-308.
- Hermida, A. (2013) "#Journalism: Reconfiguring journalism research about Twitter, one tweet at a time," *Digital Journalism* 1, 3: 295-313.

- Hermida, A. (2011) "Mechanisms of participation: how audience options shape the conversation," In *Participatory Journalism: Guarding Gates at Online Newspapers*, J. B. Singer, et al. (eds.), 13-33. Chichester, UK: Wiley-Blackwell.
- Nisenholtz, M. (2013) "Jonah Peretti," *Nieman Journalism Lab*, March 7. Accessed October 24 2013. <http://www.niemanlab.org/riptide/person/jonah-peretti/>
- Jenkins, H. (2006) *Convergence Culture: Where old and new media collide*, New York: NYU press.
- Jenkins, H, Ford, S. and Green, J. (2012) *Spreadable Media: Creating value and meaning in a networked culture*. New York: NYU Press.
- Jones, J. and Altadonna, N. (2012) "We don't need no stinkin' badges: examining the social role of badges in the Huffington Post," in *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work*, 249-252. ACM.
- Kovach, B. and Rosentiel, T. (2001) *The Elements of Journalism*, New York: Crown Publishers.
- Langlois, G., Elmer, G., McKelvey, F. and Devereaux, Z. (2009) "Networked publics: The double articulation of code and politics on Facebook," *Canadian Journal of Communication* 34, 3.
- Lasorsa, D. L., Lewis, S. C. and Holton, A. E. (2012) "Normalizing Twitter: Journalism practice in an emerging communication space," *Journalism Studies* 13, 1: 19-36.
- Lavrusik, V. (2013b) "How the new news feed design improves content discovery," *Facebook*, March 7. Accessed October 15 2013. <https://www.facebook.com/notes/facebook-journalists/how-the-new-news-feed-design-improves-content-discovery/571743776170974>
- Lavrusik, V. (2013a) "Best practices for journalists on facebook," *Facebook*, May 2. Accessed October 14. <https://www.facebook.com/notes/facebook-journalists/best-practices-for-journalists-on-facebook/593586440653374?id=206736659338356>
- Lee, J. (2013) "An introduction to Facebook's new page insights," *Search Engine Watch*, October 14. Accessed October 17, 2013. <http://searchenginewatch.com/article/2300218/An-Introduction-to-Facebooks-New-Page-Insights>
- Lee, A. M., Lewis, S. C. and Powers, M. (2012) "Audience clicks and news placement: A study of time-lagged influence in online journalism," *Communication Research*. doi: 10.1177/0093650212467031
- Lindley, G. (2013) "Public conversations on Facebook," *Facebook*, June 12. Accessed October 15, 2013. <http://newsroom.fb.com/News/633/Public-Conversations-on-Facebook>
- Lotan, G. (2011) "Data reveals that 'occupying' Twitter Trending Topics is harder than it looks!," *SocialFlow*, 12 October 2011. Accessed on September 10, 2013. <http://blog.socialflow.com/post/7120244374/data-reveals-that-occupying-twitter-trending-topics-is-harder-than-it-looks>
- MacGregor, P. (2007) "Tracking the online audience: Metric data start a subtle revolution," *Journalism Studies* 8, 2: 280-298.
- Margolis, L. (2012) "How The New York Times does social media," *Photoshelter blog*, April 23. Accessed on October 12, 2013. <http://blog.photoshelter.com/2012/04/how-the-new-york-times-does-social-media/>
- McChesney, R. W. (1999) *Rich Media, Poor Democracy: Communication politics in dubious times*, Chicago: University of Illinois Press.
- McChesney, R. W. (2004) *The Problem of the Media: U.S. communication politics in the twenty-first century*, New York: monthly Review press.
- McGee, M. (2013) "EdgeRank is dead: Facebook's News Feed algorithm now has close to 100K weight factors," *Marketing Land*, August 16. Accessed on October 14, 2013. <http://marketingland.com/edgerank-is-dead-facebooks-news-feed-algorithm-now-has-close-to-100k-weight-factors-55908>
- McNair, B. (2006) *Cultural Chaos: Journalism and power in a globalised world*, New York: Routledge.
- Muhlmann, G. (2008) *A Political History of Journalism*, Cambridge: Polity.
- Murthy, D. (2011) "Twitter: microphone for the masses?," *Media Culture and Society* 33, 5: 779-788.

- Napoli, P. M. (2011) *Audience Evolution: New Technologies and the Transformation of Media Audiences*, New York: Columbia University Press.
- Newman, N., Dutton, W. H. and G. Blank. (2012) "Social media in the changing ecology of news: The Fourth and Fifth Estates in Britain," *International Journal of Internet Science* 7, 1: 6-22.
- NewsWhip (2014) "The biggest Facebook publishers of February 2014," Accessed on 1 April 2014. <http://blog.newswhip.com/index.php/2014/03/biggest-facebook-publishers-february-2014>
- Quigley, P. (2013) "Top social publishers August 2013: Sharing way up for all publishers, and BuzzFeed on top," *NewsWhip*, 26 September. Accessed on October 10, 2013. <http://blog.newswhip.com/index.php/2013/09/social-publishers>
- Paulussen, S., Heinonen, A., Domingo, D. and Quandt, T. (2007) "Doing it together: Citizen participation in the professional news making process," *Observatorio* 1, 3: 131-154.
- Mitchell, A. and Rosenstiel, T. (2012) "The state of the news media 2012," *Pew Research Center*. Accessed on October 5, 2013.
- Rosen, J. (1996) *Getting the Connections Straight: Public Journalism and the Troubles in the Press*. New York: Twentieth Century Fund Press.
- Rosen, J. (2006) "The People Formerly Known as the Audience," *Pressthink*, June 27. Accessed on February 20, 2014. http://journalism.nyu.edu/pubzone/weblogs/pressthink/2006/06/27/ppl_fmr.html
- Sasseen, J., Olmstead, K. and Mitchell, A. (2013) "The state of the news media 2012," *Pew Research Center*. Accessed on October 5, 2013. <http://stateofthemedias.org/2013/digital-as-mobile-grows-rapidly-the-pressures-on-news-intensify/>
- Poell, T. and Borra, E. (2012) "Twitter, YouTube, and Flickr as platforms of alternative journalism: The social media account of the 2010 Toronto G20 protests," *Journalism* 13, 6: 695-713.
- Robertson, A. (2013) "Facebook redesigns News Feed with multiple feeds and 'mobile-inspired' interface," *The Verge*, March 7. Accessed on October 9, 2013. <http://www.theverge.com/2013/3/7/4075548/facebook-redesigns-news-feed-with-multiple-feeds>
- Rogers, R. (2008) "Post-demographic machines," In *Walled Garden*, A. Dekker and A. Wolfsberger (eds.). 29-39. Amsterdam: Virtueel Platform.
- Schudson, M. (1978) *Discovering the News: A Social History of American Newspapers*. New York: Basic Books.
- Shirky, C. (2008) *Here Comes Everybody: The Power of Organizing Without Organizations*. New York: Penguin.
- Shirky, C. (2011) "Political power of social media. Technology, the public sphere, and political change," *Foreign Affairs* 90: 28-40.
- Shontell, A. (2010) "Success secrets revealed from the media startup on steroids, Huffington Post," *Business Insider*, October 7. Accessed on October 12, 2013. <http://www.businessinsider.com/secrets-from-the-startup-on-steroids-huffington-post-2010-10#how-do-you-make-content-go-viral-1>
- Sonderman, J. (2012) "How the Huffington Post handles 70+ million comments a year," *Poynter*, October 23 2012. Accessed on October 15, 2013. <http://www.poynter.org/latest-news/top-stories/190492/how-the-huffington-post-handles-70-million-comments-a-year/>
- Starr, P. (2004) *The Creation of the Media*. New York: Basic Books.
- Topsy. (2013) "Topsy pro analytics features," Accessed on 15 October, 2013. <http://about.topsy.com/products/proanalytics/features/>
- Tumber, H. and Palmer, J. (2004) *Media at War: The Iraq crisis*. London: Sage.
- Twitter (2010) "To trend or not to trend," Accessed on 9 October 2013. <https://blog.twitter.com/2010/trend-or-not-trend>
- Twitter (2013a) "Twitter best practices for journalists and newsrooms," Accessed on 9 October, 2013. https://dev.twitter.com/sites/default/files/files_media/journalistsbestpractices_v2.pdf

- Twitter (2013b) "FAQs about trends on Twitter," Accessed on 9 October 2013. <https://support.twitter.com/articles/101125-faqs-about-trends-on-twitter>
- Twitter (2013c) "Analytics," Accessed on 9 October, 2013. <https://analytics.twitter.com/>
- Underwood, D. (2001) "Reporting and the push for market-oriented journalism: Media organizations as businesses," In *Mediated Politics: Communication in the future of democracy*, L. W. Bennett and R. M. Entman (eds.), 99-116. Cambridge: Cambridge University Press.
- Usher, N. (2013) "Al Jazeera English online: Understanding web metrics and news production when a quantified audience is not a commodified audience," *Digital Journalism* 3, 1: 335-351.
- van Dijck, J., and Poell, T. (2013) "Understanding social media logic," *Media and Communication* 1, 1: 2-14.
- van Dijck, J. (2012) "Tracing Twitter: The rise of a microblogging platform," *International Journal of Media and Cultural Politics* 7, 3: 333-348.
- Vu, H. T. (2013) "The online audience as gatekeeper: The influence of reader metrics on news editorial selection," *Journalism*. doi: 10.1177/1464884913504259.