

Twitter as an Ambient News Network

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#BREAKING: when news events happen, Twitter's ambient news function becomes crucial

As a high school pupil, Morgan Jones had already shown a keen interest in news. He had been editor for *RJ Voice*, the newspaper of the Regis Jesuit High School (a private, Catholic college in Aurora, Colorado), as well as been involved with the school radio station, RJ Radio (Jones, n.d.). The 18-year-old, self-described techie was spending the 2012 summer break with his parents in Denver, before going to Rice University to study engineering. In the early hours of 20 July 2012, he was playing the fantasy role-playing video game *Oblivion* when he saw a note on Facebook from a local TV station about shootings at a movie theatre (Herman, 2012).

It later emerged that the reports referred to a shooting at a midnight screening of *The Dark Knight Rises* in Aurora, Colorado, in which 12 people were killed and 58 wounded. The suspected gunman, 24-year-old James Holmes, was arrested shortly after the rampage. On that night in July, Jones tuned in to the Aurora police scanner and started posting updates under his username,

Integ3r, on Reddit, the largest Internet message board in the world with 35 million monthly users (Shaer, 2012).

The timeline provided a minute-by-minute account of the tragic events of the night (Integ3r, 2012). Jones pulled in fragments of information gleaned from police, from mainstream media outlets, and from messages and photos shared on Twitter by people at the cinema, adding new details and correcting old information as he went along. “I stayed up all night, and I am exhausted now, but it feels like I’m helping out people who need to know this stuff”, he said the following day (quoted in Herman, 2012).

The night of the Aurora tragedy, Jones performed some of the communication functions that had previously been limited mainly to professional journalists working for media institutions with the structures and technologies to gather, process, and distribute the news. The cinema shootings were emblematic of how news flows in a networked media ecosystem, facilitated by social media such as Twitter. Social media services like Twitter have developed into platforms for news storytelling, becoming integral to any major news event, from the Sichuan earthquake in China in May 2008 to the Iranian election protests in June 2009 to the 2011 uprising in Egypt (Hermida, 2011, p. 672).

By 2012, 340 million tweets were being posted daily (Twitter, 2012), on topics ranging from the mundane to the comical to the momentous. Clearly not all of the content could be considered to be news in the public interest, but likewise, neither is everything published in magazines or other media formats. Twitter provides a distribution network for firsthand news accounts by eyewitnesses in near real time. Sometimes, this happens inadvertently—as in the case of Sohaib Athar, a Pakistani software engineer who unknowingly live-tweeted the U.S. raid on Osama Bin Laden’s compound (Butcher, 2011).

Concurrently, Twitter serves as a channel for the distribution of material from journalists and the mainstream media. Exchanges around news events circulate as reports, rumours, and speculation are shared on the network and are challenged, contradicted, or corroborated. Surges in tweets are often linked to major news events, like the torrent of conjecture ahead of President Obama’s announcement of the death of Bin Laden. There were more than 4,000 tweets per second on the topic by the time the president finally appeared on TV (Hermida, 2011, pp. 671–672).

Twitter facilitates the instant, online dissemination and reception of short fragments of information from sources outside the formal structures of journalism, creating social awareness streams that provide a constantly updated, live representation of the experiences, interests, and opinions of users. Such uses

of Twitter can be considered “ambient journalism” (Hermida, 2010a, 2010b), a telemediated practice powered by networked, always-on communications technologies and media systems of immediacy and instantaneity.

It builds on the term “ambient news”, which refers to the easy availability of news through a host of media platforms, such as electronic billboards in public spaces such as train stations or free commuter newspapers that convey news and information produced by professional media (Hargreaves & Thomas, 2002, p. 44). “Ambient news” works much like ambient music that plays in the background (Crawford, 2009, p. 528); a listener will tune in to the music when there is a change in tone or style that catches their attention. Applied to Twitter, “when important news breaks and spreads across the Twittersphere, shifts in tone and topical focus of incoming tweets may cause that user to pay attention to the story” (Bruns & Burgess, 2012, p. 2).

Ambient journalism concerns the collection, selection, and dissemination of news by both professional and non-professional para-journalists, where users undertake some of the institutional tasks commonly associated with the journalist. These tasks range from an individual sending a message about a breaking news event to alerting their online social network about a story in the mainstream media to curating the flow of information in real time. Users become part of the flow of news, reframing or reinterpreting a message through networked platforms that extend the dissemination of news through social interaction, introducing hybridity in news production and news values (Chadwick, 2011; Papacharissi & de Fatima Oliveira, 2012). As Hardey (2007) stressed, the key differentiator is that digital media technologies such as Twitter are “*inherently* social so that users are central to both the content and form of all material and resources” (p. 870).

Drawing on the research in new literacies (Lankshear & Knobel, 2007, 2011; Prinsloo, 2005), this chapter aims to contextualise and unpack the interplay between social media—specifically Twitter—and emergent paradigms in journalism (Hermida et al., forthcoming; Lotan et al., 2011; Papacharissi & de Fatima Oliveira, 2012). It frames Twitter and journalism in the light of what the renowned U.S. foreign policy analyst and Editor-at-Large of *The American Interest* magazine, Walter Russell Mead (2012), described as the disruptive and painful “transformation from late-stage industrial society to early-stage information society” (para 32). This approach diverges from a bias in journalism studies that sees it mostly drawing on the routines and practices of print media (Deuze, 2008).

TWITTER AND NEWSROOMS

Since its launch in 2006, Twitter has made significant inroads into newsrooms, with journalists rapidly embracing the service to report breaking news, to gather information, to connect with sources, and to drive traffic to websites (Ahmad, 2010; Farhi, 2009; Hermida, 2011). The adoption of Twitter has largely mirrored the path of earlier new media technologies such as blogging, with journalists extending established norms and routines as they incorporate novel tools and techniques into daily practice. In his study of the use of social media in mainstream media, Newman (2009) concluded that “the use of new tools has not led to any fundamental rewrite of the rule book—just a few tweaks round the edges” (p. 39).

Within newsrooms, a common practice has been to use Twitter as a channel to promote content and attract readers to a news website, as social media provides a ready-made free distribution network. Messner, Linke, and Eford (2012) found that leading U.S. newspapers and TV stations mostly used their official Twitter accounts to send out links to the latest news stories on their websites. In his study of TV stations in San Antonio, Texas, Blasingame (2011) found that many newsrooms automatically generated a tweet with a link when a new story was published online.

On an individual level, journalists are navigating some of the tensions that emerge as the affordances of Twitter interact with established journalistic conventions. Some studies indicate that journalists are extending traditional practices to social media, using new tools to do old things. Research into the use of tweets by Dutch and U.K. newspapers suggests that newsrooms are using tweets from ordinary people to represent the *vox populi*, especially among the British tabloid press (Broersma & Graham, 2012, p. 411). In some cases, journalists are approaching Twitter as another newsgathering tool, just as they would have used the telephone in the past. A 2011 survey of 500 journalists in 15 countries found that almost half used Twitter to source angles for a story (Oriella PR Network, 2011). Only a third said that they used social media to verify information, relying instead on traditional sources such as PR agencies and corporate spokespeople. But there is also some evidence of journalists pushing the boundaries of accepted practice: for example, Lasorsa, Lewis, and Holton (2012) found that the journalists they studied offered personal opinions on Twitter, straying from traditional norms of objectivity.

As with every new communication technology, there is a process of negotiation, as established ways of working rub up against new affordances. Social

media platforms such as Twitter have a communicative structure that can chafe with the notion of the journalist as the professional who works “full-time to access, select and filter, produce and edit news, which is then distributed via the media to network members” (Domingo et al., 2008, p. 329). Social media bring together interpersonal communication, content production, immediacy, and large-scale distribution in a way that blurs the line between the public and private, and does not have the spatial, social, or temporal boundaries of print or broadcast media (boyd, 2010; Bruns & Burgess, 2012).

JOURNALISM THROUGH THE LENS OF NEW LITERACIES

Technological innovations from the telegraph to the telephone to Twitter have informed the norms and practices of journalism. As new technologies for information and communication appear, so does the demand for new skills, knowledge, and understanding. Media theorist Neil Postman (1992) noted how new technologies “alter the character of our symbols: the things we think with. And they alter the nature of community: the arena in which thoughts develop” (p. 20). In other words, new literacies emerge as communication tools evolve.

Literacies refer to the ability of individuals to interpret and communicate information in a meaningful way in order to participate in society. The nature of these literacies changes as a result of shifting social contexts, and the development and use of new media. New literacies researchers separate the technical and cultural aspects of literacy (Kalantzis & Cope, 2011; Lankshear & Knobel, 2007, 2011). The technical aspect refers to the properties of digital media, combining written, oral, and audiovisual modalities of communication using screen-based, networked services and devices. The cultural aspect refers to the mind-set that informs these literacies. The mind-set is the general way of thinking about the world, based on a set of assumptions, beliefs, and values that shape actions and reactions.

Lankshear and Knobel (2011) suggested that there are two mind-sets. They locate the two mind-sets in the historical development of society, labelling one as the modern/industrial paradigm and the other as the postmodern/post-industrial/knowledge society paradigm (p. 53). In the first mind-set, the world is uniform, monolithic, enclosed, individualised, stable, and linear. In the second mind-set, the world is distributed, open, collaborative, dynamic, and non-linear. Lankshear and Knobel applied this framework to explore how the shift to a post-industrial, knowledge society mind-set reconfigures everyday social practices around communication.

The industrial paradigm can be applied to print journalism, which developed at a time when access to the machinery of news production, publication, and provision was expensive. The newspaper is a stable and fixed product with a specific purpose—to provide news, information, and entertainment on a daily basis. Once it is printed, the hierarchy of information on the page cannot be changed. The story on the page is linear in nature, with a beginning, middle, and end. The story is usually written by an individual reporter, identified by the byline, though the material will have gone through various editorial layers. The journalist is identified by their attachment to a professional news organisation, where the processes of identifying, gathering, filtering, processing, and publishing are in the hands of a select few. The newsroom itself is an enclosed physical space that claims authority and expertise in the production of news. Outsiders are not welcomed, except through narrow, controlled channels such as letters to the editor. The news is shaped into a product that is pushed out to audiences, through home delivery or via newsstands.

Seen through the lens of new literacies, journalists have a mind-set rooted in the modern industrial period. As a wide body of research indicates, newsrooms have predominantly adapted digital media to existing norms and practices, rather than taking on the affordances of new forms of communication that challenge established ways of working (Lasorsa, 2012; Lasorsa et al., 2012; Robinson, 2007; Singer, 2005; Singer et al., 2011). By and large, journalism practices have become more technologised, with reporters doing old things in new ways, rather than negotiating the transition to a post-industrial knowledge society.

In order to function effectively, journalists have always required knowledge of both the technical and cultural aspects of literacy. What is new about Twitter are the differences in the technical and cultural aspects of the platform, compared to print or broadcast. The technical dimensions include the 140-character limit; the follower-followee structure system; the use of URL-shortening services; and the platform's markers for mutual exchange and conversation, such as the hashtags and mentions. But it can be a bewildering space without an understanding of the norms and conventions of Twitter. This bewilderment might account for some early derision from journalists, such as when *The New York Times* columnist Maureen Dowd (2009) described Twitter as “a toy for bored celebrities and high-school girls”. Viewed through an industrial mind-set, Twitter is a shambolic, messy, and noisy torrent of seemingly everyday details of life. These negative attributes are transformed into positive attributes

when viewed through the new literacies of a post-industrial mind-set, revealing instead a complex, networked communications environment.

Twitter exhibits core values of new literacies—“interactivity, participation, collaboration, and the distribution and dispersal of expertise and intelligence” (Lankshear & Knobel, 2011, p. 76). Participation is prioritised over publication, sharing over owning, change over stability, abundance over scarcity, relationships over information delivery. As an ambient news network, Twitter offers a mix of information and comment usually associated with current reality, but without an established order. In contrast with the print newspaper or the TV broadcast, anyone can publish and distribute at anytime, outside of the formal constraints of traditional journalism, with no established editorial structures or processes. The content flows continuously in near real time. Twitter breaks with the classic, narrative structure of journalism, and instead creates multifaceted, fragmented, and fluid news experiences. Journalism shifts from being a product to a process with no end state.

AMBIENT NEWS BEYOND JOURNALISM

As an open platform, Twitter itself offers a space for the co-construction of news. Writing before the widespread adoption of Twitter, Manuel Castells (2007) described the rise of mass self-communication that is “*self-generated in content, self-directed in emission, and self-selected in reception by the many that communicate with many*” (p. 248). Studies into the use of Twitter during the Arab Spring indicate how the production and dissemination of news is becoming ambient, as citizens become part of the flow of news, reframing or reinterpreting a message. (See also Chapter 28 by Bruns & Burgess on the uses of Twitter for crisis communication in natural disasters, in this volume.)

The hybrid nature of news production on Twitter was highlighted in a study by Lotan et al. (2011) into information flows on Twitter during the Tunisian and Egyptian uprisings. The researchers sought to identify who were the influential voices on the network in amplifying and spreading news of the protests across the world. Of particular interest was the symbiotic relationship between mainstream media and actors outside of the formal structures of journalism. They found that journalists and activists served as primary sources of information. Activists were more likely to retweet content, as were bloggers, serving as clearing houses (2011, p. 1390). Lotan et al. concluded that bloggers, activists, and journalists co-constructed the news on Twitter, fashioning “a particular kind of online press” (2011, p. 1400).

Twitter provides a newsroom for this “online press” that is open, distributed, and collective, in contrast to traditional models of the newsrooms as enclosed, concentrated, and exclusive spaces. The networked nature of the newsroom affects what becomes newsworthy. Papacharissi and de Fatima Oliveira (2012) examined the news values and forms of news displayed in tweets sent during the Egyptian uprising and subsequent fall of President Hosni Mubarak over January and February 2011, finding that the types of events reported and the tone of coverage on Twitter mirrored the news values of traditional media. But they also argued that there was evidence of values specific to an ambient news network that collide with journalistic conventions.

On Twitter, the news was characterised by values of instantaneity, solidarity, and ambience (Papacharissi & de Fatima Oliveira, 2012, p. 273). Events *became* news, because details of what was happening were disseminated instantly and were repeatedly shared across the network. Papacharissi and de Fatima Oliveira (2012) suggested that “as individuals constantly tweeted and retweeted observations, events instantly turned into stories” (p. 274). The constant flow of messages broke with journalistic conventions by blending fact, opinion, and emotion to the extent that the researchers found it hard to separate one from the other. The authors concluded that the pace, frequency, and tone of messages created an ambient, always-on system where users gain an emotive, immediate sense of the drama unfolding, but without the fact-checking and arms-length reporting associated with traditional news. They posited the concept of “affective news streams” to explain “how news is collaboratively constructed out of subjective experience, opinion, and emotion within an ambient news environment” (p. 274).

Moreover, collaborative co-construction of the news affects the frames applied to events. By selecting specific facts or sources, journalists frame the news “in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman, 1993, p. 52). However, Meraz and Papacharissi’s (2013) research on the Arab Spring suggested that framing on Twitter is negotiated on the network through interactions between journalists, activists, and citizens in an “organic, ad hoc manner” (p. 159).

JOURNALISM IN AN AMBIENT NEWS NETWORK

Emerging research points to new forms of journalism that move away from journalism as a framework to provide reports and analyses of events through linear narratives composed after an event. An increasingly popular format is

the “live blog” or “live update” page. Live blogs weave together reports from professional journalists and information gleaned from social networks such as Twitter, together with commentary and analysis in near real time, generating a multidimensional, temporal, and fast-moving news experience. They have been rapidly adopted by leading news organisations, including the BBC, *The Guardian*, *The New York Times*, and CNN. Thurman and Walters (2012) suggested that the format is “increasingly the default form for covering major breaking news stories, sports events, and scheduled entertainment news” (p. 1).

The live blog differs from conventional reporting in both its technical and cultural aspects. A live blog is made up of timestamped entries in reverse chronological order, with multiple forms of media, numerous links to material elsewhere on the Internet, and signposted content from third parties (Thurman & Walters, 2012). Through the lens of new literacies, live blogs are more collaborative, open, fluid, and less author-centric than other forms of journalism. The conventional newspaper story strives to convey a definitive and authoritative account of an event. Live blogs present an iterative and incremental account. The editor of the BBC News website, Steve Herrmann, has talked about live blogs as a way to reflect “the unfolding truth in all its guises” (as quoted in Newman, 2009, p. 9), while for *Guardian* reporter Matthew Weaver the format offers “a more fluid sense of what’s happening” (as quoted in Bruno, 2011, p. 44). The imperative to provide constantly updated information is not without its consequences. Thurman and Walters (2012) suggested that it may be hard for journalists to adapt existing fact-checking practices to live blogging.

The live-blog format creates a locus for journalists to bring in material curated from the real-time flow of information on Twitter and other social media services, and integrate it within the confines of a news organisation’s website. The imperative to harvest Twitter is at its peak in the hours after breaking news events where there is a news vacuum due to the lack of professional journalists on the scene. In the immediate aftermath of the earthquake in Haiti in January 2010, major news organisations relied heavily on messages, photos, and video streaming on social media until their own reporters arrived on the scene, hours or even days later (Bruno, 2011). The “Twitter effect”, as Bruno called it, allows newsrooms “to provide live coverage without any reporters on the ground, by simply newsgathering user-generated content available online” (Bruno, 2011, p. 8).

One of the more noteworthy aspects of Twitter, though, is how journalists can operate on the platform itself, bypassing the need for a home on a news website. At the Online News Association Conference in San Francisco

in September 2012, company CEO Dick Costolo was asked, “so, how does it feel to be the voice of the press in the 21st century?” (Silverman, 2012). The question was somewhat in jest, but it underscored how Twitter has matured as a networked newsroom where news is filtered, discussed, contested, and verified. At the time of writing, the best-known example of a media professional operating in this ambient news network was Andy Carvin.

CONCLUSION: TWITTER AS THE NEWSROOM

A social media strategist with National Public Radio (NPR) in Washington, DC, Carvin rose to prominence during the uprisings in the Middle East at the end of 2010 and start of 2011—the “Arab Spring”. Over the course of the Arab Spring, he emerged as a key hub on Twitter for news from the region, amassing tens of thousands of followers, including other journalists and news outlets. Carvin shared images and video, exchanged messages, mediated discussions, and turned to his followers to help him translate, verify, and put into context the endless amount of data flowing across the network. He tweeted up to 16 hours a day, seven days a week (Farhi, 2011, para 3). Over one weekend in August 2011, when the rebels in Libya pushed into the capital Tripoli, he sent out 1,200 messages (Sonderman, 2011). Through Twitter, Carvin fashioned a rich and dynamic tapestry of the dramatic upheavals in the region.

In their analysis of Carvin’s sourcing practices on Twitter, Hermida, Lewis, and Zamith (forthcoming) advance that his coverage of the Arab Spring hints at a new journalistic paradigm at play. They suggest that the Carvin case study points to a shift away from the traditional, journalistic gatekeeping function (Shoemaker, 1991) towards gatewatching (Bruns, 2005), where the journalist evaluates, highlights, and publicises relevant information plucked from social awareness streams on Twitter.

For Carvin, Twitter was effectively his workplace. He has described his network of followers as “my editors, researchers & fact-checkers. You’re my news room” (Carvin, 2012). Carvin described his work as “another flavour of journalism” (as quoted in Farhi, 2011, para 15). His approach was in line with a new literacies framework, demonstrating not just technical competency, but an understanding of the emerging norms and practices of Twitter. Carvin was not simply broadcasting, but was immersed in the culture of a media environment that privileges relationship over information delivery, interacting and conversing with others to co-construct the news. This approach can have positive professional results: emerging research suggests that journalists who adopt

more discursive strategies, conversing with the public, tend to receive the most retweets and mentions (Meraz & Papacharissi, 2013).

Twitter as a newsroom exposes the tentative process through which the news is constructed, as information, rumour, and speculation are authenticated or denied in a recurrent cycle. Journalism shifts from being a finite story with the fixed endpoint of publication to being an iterative process through which information is dissected, discarded, or disseminated in near real time. In an ambient news network, then, the journalist serves as a pivotal node which is “trusted to authenticate, interpret, and contextualize information flows on social awareness streams, drawing on a distributed and networked newsroom where knowledge and expertise are fluid, dynamic, and hybrid” (Hermida, Lewis, & Zamith, forthcoming, n.p.). This and the other examples discussed in this chapter show how the new literacies of networked media are shaping, and are being shaped by, journalism in this current phase of its co-evolution with technological and societal change.

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