

The Arab Spring

The Role of ICTs

## **Extra-National Information Flows, Social Media, and the 2011 Egyptian Uprising**

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This article examines two emerging and related characteristics of digital networked-era journalism highlighted during the Egyptian revolution. First, the ability to retain centralized control of communication eroded both because contemporary networked communication thrives on increasing grassroots pervasiveness and because it retains a malleable or hackable quality, where users can rework the technology to their advantage with relative ease. Second, the influence of the networked decentralized reporting of the revolution on mainstream news outlets altered both the nature of the news products and the professional norms and practices of journalists. More precisely, the purpose or main task of the traditional news outlets shifted. In covering the story of the revolution, they turned—unabashedly, and to a significant degree—not to their own reporters to relay events on the ground, but to what networked participants in the drama were reporting and saying about what was happening. The mainstream outlets, in effect, were delivering a meta story about the story being reported by people hooked into digital social networks.

Even as it was happening, it was clear that the revolution which toppled the government of Hosni Mubarak in Egypt would be a key chapter in the story of the shifting media landscape during the networked digital transition. The distinctly contemporary communication developments rising around the clash were part of the story from the beginning. For example, as protests gained traction in the country and around the world, Egyptian authorities sought to limit grassroots communication and control the narrative of events by "turning off the Internet." Digital-technology hackers responded to severely degraded domestic access by creating work-arounds that, to varying degrees, tapped into extra-national Internet flows and protected Egyptian Internet users from government surveillance. Twitter feeds and Facebook updates from non-journalists in Egypt and all over the world mixed at a new level with mainstream media material to tell the story. Throughout the clash, professional journalists treated the Egyptian state news channel as a beat to cover. Frustrated U.S. audiences turned quickly away from domestic news outlets to follow the story through social networks and at the Al Jazeera English-language website, where U.S. government figures, media moguls, and established news culture and news personalities held little power to shape the narrative.

As a communication event, the Egyptian revolution underlines two emerging and related characteristics of digital networked-era journalism. First, both because contemporary networked communication thrives on increasing grassroots pervasiveness and because it retains (for now) a malleable or hackable quality, where users can rework the technology to their advantage with relative ease, the ability to retain centralized control of communication is eroding fast—which is not to say either that the battle for control is ending, or that the momentum against centralized power can't be turned around. A key result of the present shift away from centralized control, however, is that monopolies or near-monopolies on political news information have thinned. For the Mubarak regime, the effect was a direct diminution of power. Second, as most viewers of mainstream coverage of the revolution noted, even if on an instinctive level, the effect of the networked decentralized reporting of the revolution on mainstream news outlets was to alter both the nature of the news products those outlets delivered and the professional norms and practices of the journalists creating that product. More precisely, the purpose or main task of the traditional news outlets shifted. In covering the story of the revolution, they turned—unabashedly, and to a significant degree—not to their own reporters to relay events on the ground, but to what networked participants in the drama (who were mostly Egyptians with stakes in the outcome) were reporting and saying about what was happening. The mainstream outlets, in effect, were delivering a meta story about the story being reported by people hooked into digital social networks.

### Hacking the News

In 2005, media scholar Pablo Boczkowski argued that theorists have mostly overlooked the way social and material infrastructure and new technical capabilities influence the culture of media producers and consumers. Boczkowski suggested that online reader participation was changing the definition of what is considered news. “The news moves from being mostly journalist-centered, communicated as a monologue, and primarily local, to also being increasingly audience-centered” (2005, p. 138). In Egypt, the “audience” deeply affected the news, and the relationship referred to by Boczkowski and others, in which the margins grow in power to shape the center, was underlined in the tug-of-war over media control between Mubarak and the networked Egyptian people.

For years, a growing number of scholars have argued (with varying degrees of empirical support) that this mass entry of amateurs into the realm of production introduces a new variable into the modern mediascape—and into journalism in particular (Benkler, 2006; Benson, 2010; Jenkins, 2006). The question remains, however, as to what proliferating user-centered new-media forms tell us about how the amateur variable may be shaping the field. In Egypt, decentralized amateur reporting of events did the work of a most powerful kind of traditional professional journalism, challenging the regime by reporting for large audiences what was happening on the ground, providing background for both analysis and real-time fact-checking of state assertions about the unfolding reality. Plainly key to that in this instance, and a critical aspect of the amateur variable as it is playing out in the networked era, is the ability of amateurs to technologically master and battle authority for control of networked communication media.

As Manuel Castells noted in 2007, a key fact of the networked news environment is that its “contours and effects will ultimately be decided through a series of business power struggles” (2007, p.

248). The giants of the communication industry have, for some time, been competing against one another and pressing lawmakers in political capitals around the world to shape the digital universe to their advantage. Yet, the Egyptian uprising highlighted the kind of influence Internet users can also now exert on the engineering and architecture of the global news environment. In Egypt, new-style activist journalists-cum-technologists tweaked communication infrastructure on the fly to make it serve their interests, and they made bedfellows of corporate behemoths and technology startups in the project.

When the Egyptian government effectively shut down the Internet in the country, hackers around the world worked to restore digital networks. Within hours, the OpenMesh Project, a volunteer-based initiative, was working to create secondary wireless Internet connections. The project created mobile routers connected through mobile phones and personal computers. Technology companies donated low-cost mini routers. Innovators donated patents.

Another workaround, Speak To Tweet (or speak2tweet), came about as a collaborative effort between Google, SayNow, and Twitter. It allowed people without Internet access to upload Twitter comments using phone lines. Volunteers organized by Small World News, Yamli, and Meedan then opened a GoogleDoc spreadsheet and began crowd-sourcing tweet translation. Participants held Internet-based Skype phone meetings and posted the translations, along with original audio, on the Wordpress website Alive in Egypt (Huslage, 2011).

When the Internet was brought back online, activist around the world helped Egyptians mask their Internet activity and physical locations by using Tors, which bounce communications around a distributed network of relays run by volunteers. Proxy servers allowed users in Egypt to surf blocked websites by showing the page but preventing a direct connection between users and requested sites. Whisper Systems released an application for use in Egypt that encrypted voice and text data on mobile networks. And when Middle East powerhouse news station Al Jazeera was blocked within Egypt, reporters posted live updates using Audioboo, an online mobile and Web audio recording and streaming platform.

On some level, volunteer software developers and hackers joined with or replaced journalists, editors, publishers, and broadcast executives as the champions of the news. Their efforts were transnational, collaborative, flexible, and efficient. The scale of technological intervention in contemporary communications media on display in Egypt seems unimaginable in the recently bygone mass-media era dominated by relatively unhackable television stations and newspapers. Technological intervention was an essential aspect to organizing the protests that became the Tahrir Square uprising, as well as in telling the story of the uprising as it happened. Hackability or reworkability, tied to the "amateur variable," is a distinct characteristic of the contemporary networked news environment.

### **The Center and the Margins**

Mainstream media outlets heightened the decentralized character of the revolution-related communications, fueling the power of the margins rather than the center in the communications war, effectively adding another front in the circumvention of media control. In covering the revolution, major

Western outlets and the top Middle Eastern outlet, Al Jazeera, did chase official sources, but as the story progressed, they also turned increasingly to social media communication related to the revolution as both a source for reporting and a news item or subject to be reported as part of the story.

As the standoff progressed, increasing numbers of people inside and outside of Egypt speculated about the role being played by social media in the uprising. Perhaps most famously, Wael Ghonim, Google's head of marketing for the Middle East and North Africa, touted the role of social-networking technology in toppling Mubarak:

This revolution started in June 2010 when hundreds of thousands of Egyptians started collaborating content. We would post a video on Facebook that would be shared by 60,000 people on their walls within a few hours. I always said that if you want to liberate a society just give them the Internet. The reason why is the Internet will help you fight a media war, which is something the Egyptian government regime played very well in 1970, 1980, 1990, and when the Internet came along they couldn't play it. (CNN, 2011)

Google's Ghonim is no neutral observer. He's a proselytizer for new media who gets paid to sell Google, the reigning corporation of the Internet sector in the Internet era. Of course, 60,000 Facebook users, while impressive, is less than 1% of either the population or the estimated Internet users in the country (CIA World Factbook, 2011). Yet Ghonim's 60,000 are the ones who connected online through these stories in the first wave, "within a few hours"—the kind of aggressive surfers and early adopters who seed the Web, the kind of people marketers like Ghonim are trained to discover and mark out as targets to sell things or ideas to in order to "generate buzz" and profits, to make things happen. Although Ghonim overstates the Internet's role in sparking the revolution—the kind of overstatement common enough in the Internet era—his enthusiasm and elaboration underlines and echoes the longstanding theory that sees communication media as a main site of political contestation (Atton & Hamilton, 2008; Boler, 2008; Castells, 1997, 2007; Downing, 2000; Hands, 2011).

As outlined above, in Egypt this year, networked social media played a significant role in the political communications war in two main ways that worked in concert to draw the attention of the mainstream media and, in effect, make professional journalists complicit in circumventing the usual central sources of media power.

### ***Message Control***

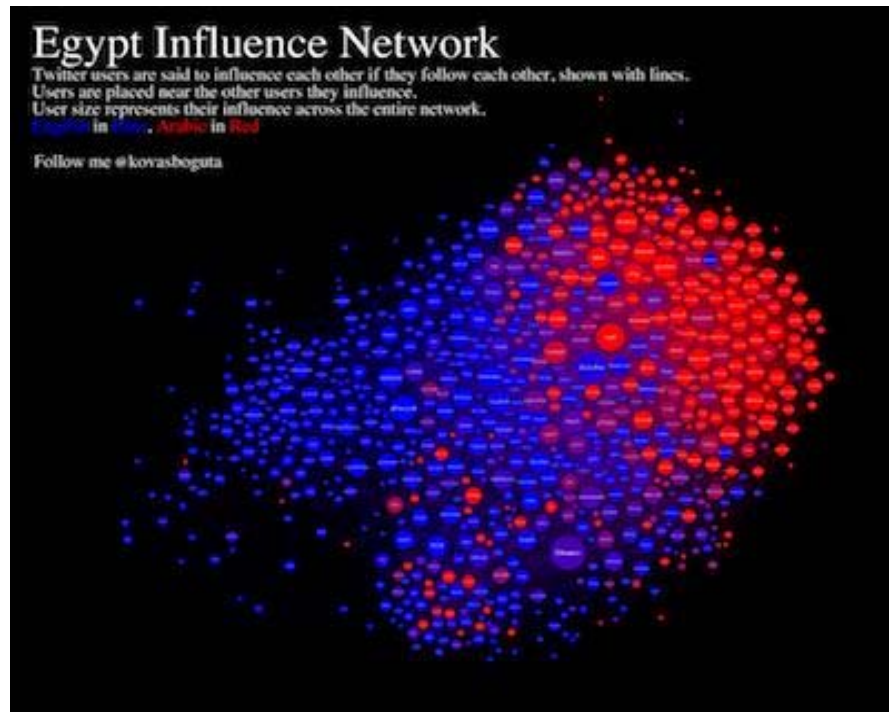
It is useful in considering what happened to reflect on the work of Douglas Kellner and Richard Kahn (2004), who suggest that outsider movements using today's digital media are less likely to be appropriated by the cultures they are opposing or attempting to change. Unlike Todd Gitlin's (1980) work on the 1960s-era Students for a Democratic Society, who attempted to attract media attention only to end up effectively turning over control of their message to TV news reporters, anchors, talking heads, and producers, the Egyptian activists used the Internet and mobile technologies to access and circulate information that exists apart from mainstream media channels. In Egypt, we witnessed the most high-

profile, and perhaps the largest-scale, instance to date of mainstream media tapping into these alternative networks or channels as topics and sources for their stories.

Activists have been using the Internet to bring attention to their cause and protect themselves against reprisal from their own governments at least since the Mexican Zapatista uprising of the mid-1990s (Cleaver, 1998). Two decades after the famous listserv-fueled Mexican revolt, networked social media—mainly Facebook and Twitter—facilitated information sharing and protest planning within Egypt and helped Egyptians garner attention and support from people around the world. A key difference between then and now is that the social media communication on the uprising in Egypt fed audiences plugged in at a whole new level and hungry for information—audiences that included professional journalists covering the story and desperate to fill both airtime and online and offline page space. The degree to which traditional professional journalists used social media, which encourages or even exists to fuel and distribute grassroots communication, to report on events altered the character of the reporting. Coverage of the failed 2009 Green Revolution or “Twitter Revolution” in Iran was a mere warm up. To put it baldly, in Egypt, the “professional variable” in the coverage entwined, overlapped, and mixed with the “amateur variable” to an extent unprecedented by any comparable top global news story in history.

Professional journalists used Twitter to broadcast updates on the protests, dispatches from the action, and reports from the newsrooms. Re-tweets of “amateur” material taken from their own feeds and from hash-tag aggregation feeds became a part of their reporting. Global news organizations like CNN, NPR, Al Jazeera, BBC, and *The Guardian* curated Egypt Twitter feeds, cherry-picking what they saw as the most credible and relevant tweets and pushing those out to the world on their own platforms. The tweets rolled across the bottom of video and scrolled along the side of website posts. Journalists working the story did the same with video- and photo-sharing sites like Twitpic, Flickr, Demoxi, and YouTube. Indeed, YouTube became a sort of anchorless news site, advertising news of the protests by placing banners on every page, pointing to the growing collection of Egypt protest videos, highlighting those videos on the front page of the site, and streaming Al Jazeera's coverage in English and Arabic.

An infographic by Kova Boguta maps the topography of influence in the Egyptian revolution Twitter landscape. Tweepers are circles connected to one another, with the number of links and retweets connected to any particular single user ramping up the size of that user's circle. English tweeters appear in blue; Arabic tweeters appear in red; purple tweeters go back and forth.



**Figure 1. A Graphical Representation of Networked Twitter Influence in the 2011 Egyptian Revolution.**

Source: <http://www.kovasboguta.com/uploads/4/7/9/5/4795292/egyptinfluncenetworklarge.gif>

Boguta describes some of the more interesting points he thinks the map reveals:

The lump on the left is dominated by journalists, NGO and foreign policy types; it seems nearly grafted on, and goes through an intermediary buffer layer before making contact with the true Egyptian activists on the ground. However, this process of translation and aggregation is key; it is how those in Egypt are finally getting a voice in Western society, and an insurance policy against regime violence. Many of the prominent nodes in this network were at some point arrested, but their deep connectivity helped ensure they were not “disappeared.” (2011)

Boguta also notes that, far out on the margins of the map, tiny dots represent the White House, the U.S. State Department, and Google’s Eric Schmidt. The map illustrates the way social media and the networked environment are shifting news sourcing. This major geo-political news story relied largely on unofficial sources. Spokespeople at podiums took a backseat to victims, activists, neighbors, citizens. The lion’s share of “journalists” reporting the story weren’t “embedded” in the action; they were participants in the action.

As governments and mainstream media face crises of legitimacy (Castells, 2007; Purcell et al., 2010), mass participation in news production acts as a form of marketing for traditional news organizations and may ratchet up civic engagement. Activist media scholar Chris Atton writes that networked participation in news writing “adds a contemporary sheen to dominant practices, thus demonstrating that established news organizations are sensitive to popular cultural change” (2009, p. 141). In covering the Egypt protests, traditional journalists seemed to use social media to gather and communicate the story to leverage a tactical edge. That is, the horizontal social media communication was more effective at getting and spreading the story than traditional vertical institutional media structures. Relying on millions of users to help write and spread the story was more powerful than relying on authorities to answer questions about the events, and on traditional broadcast networks to disseminate that officialized version of the story. Of course, the story was not either-or, but both. The story of Egypt is a product of networked and traditional journalism.

Castells has theorized that we now exist within an electronically constructed “space of flows” which alters how we live, including the ways social change is carried out. Long before the uprising in Egypt, he observed:

Because social relations are structured now in a global network and played out in the realm of socialized communication, social movements also act on this global network structure and enter the battle over the minds by intervening in the global communication process. They think local, rooted in their society, and act global, confronting the power where the power holders are, in the global networks of power and in the communication sphere. (2007, p. 249)

In his 1997 study of the Zapatista movement, Castells saw the Web as an answer to dissident or outsider isolation, arguing that the Zapatista use of digital communications placed them apart from social movements of the past, mostly by accelerating and extending communication and undercutting the power of traditional media. In his recent book, *Joss Hands* points out that Castells characterizes the use of the network in the cause of resistance against neoliberalism as an unintended side effect and argues that “such a view inevitably limits the possibility of further development and new kinds of production, because resistance can only go so far as the existing technology will allow it” (2010, p. 45). In the case of Egypt, however, connected contributors to the story tweaked the infrastructure to make it serve their interests, overpowering Mubarak’s centralized attempt to make it serve the regime. The turn of events, along with the scale of what happened in Egypt, suggests that, although new technological networks can act as extensions of existing media hegemonies (Rich, 2011), the technology as it exists now also fosters effective resistance and different varieties of grassroots control.

### ***Deconstructing the News***

In training such a significant portion of attention to grassroots “nonprofessional” social media communications or reporting on the revolution, the mainstream media helped transfer power away from

Egyptian authorities, but also away from other kinds of official news sources. Much of the networked reporting couldn't be verified in the crush of the protests and the rush of evolving information. Professional journalism norms and practices shifted on the fly, almost imperceptibly, hour to hour.

As Daniel Hallin might put it, networked publics developed connections with one another and expanded the sphere of legitimate debate (1986). In the mass-media era, traditional news media largely defined the sphere of debate because the public was connected to the media, but not to one another. Today, user-participants find each other and exchange opinions and information without filter and on an outsize scale that increases exponentially every month. In Egypt, that reality pressed hard on traditional media without explicitly trying to, and in so doing, it shaped the story in a new way. In the coverage, a more powerful watchdog mechanism was at play: *sousveillance*, or the act of watching back. For example, early in the story, Wikileaks posted widely distributed cables that exposed the graft of Egyptian officials, and Facebook users posted photos of the brutalized body of Khaled Said, who was killed by Egyptian police (Giglio, 2011). Leaning on information coming through social networks and only partly confirmed by his staff, CNN host Anderson Cooper on the air repeatedly called U.S.-backed Egyptian Vice President Omar Suleiman and other representatives of the Mubarak regime liars.

Indeed, in part, mainstream reporters and their outlets became aggregators, ultimately performing a meta role. The networked "hive" of global digital media users became a major component to the story of the protests and dominated coverage of the coverage. News outlets, responding to the uncontrollable work of the networked participants, expanded the story to focus on the role played by new media in mobilizing the protests and communicating details of the protests to a global audience. The mainstream outlets' coverage also highlighted the regime's attempts to control the communication environment by shutting down the Internet and the Al Jazeera news network, as well as the way the regime was threatening and assaulting journalists and sending out pro-government content through state television and over Vodaphone networks. The mainstream media also framed the amateur journalists covering the story alongside their professional counterparts as enemies of the regime and heroes. The meta-news stories proliferated. Lexis Nexis newswire archives, which include wire services content from all over the world, turned up 142 stories that mention Egypt and social media or technology in the headline or lead between January 25, when the protests began, and February 12, the day after Mubarak conceded to the demands of the protestors. There were 463 stories that included media and Egypt in the headline during the same timeframe.

Perhaps the predominant feature of the meta-coverage was that it suggested a particular and widespread understanding of media's representational power, a belief in the power of journalists to construct rather than simply reflect reality. Nick Couldry points out that, as more and more people are involved in the news-making process, and as the news-making process itself becomes a topic of the news, consciousness of reality-construction as an aspect of news production becomes more widespread. News becomes de-naturalized; its "underlying arbitrariness," as Couldry (2003) puts it, is no longer obscured by the symbolic power of its representations, and it is thus opened up to increased scrutiny and criticism. The scale and scope of the meta-coverage seems to suggest that, in the case of Egypt, there was a relative hyper-awareness of the social constructedness of news, and thus a breakdown of its symbolic power, both within and outside Egypt. This consciousness and the meta-discourse that it inspired is not



unprecedented; it is a recurring phenomenon in the history of professional journalism, arising particularly at times of political crisis or polarization (Gitlin, 1980). Yet the notion that journalists construct, rather than reflect, reality directly contradicts the central tenets of the U.S. professional model of journalism (Glasser & Ettema, 1998; Schudson, 1978; Soloski, 1989), which has been exported to much of the world, and which shapes many global news products and practices. Indeed, the norms and practices of journalism were created in part to maintain the notion that, by following practices meant to achieve balance, distance, and objectivity, journalists become uniquely qualified to uncover the truth.

### **Discussion**

The fall of the Mubarak regime has been positioned as a turning point in the region, a key chapter in the story of the Arab Spring. For media scholars, it may also turn out to be a key chapter in the evolution of news media and journalism, a moment where the future came more clearly into focus and key lasting characteristics materialized more fully formed. As it exists today, networked communication is fueled by participation. The more participation, and the more experimental the participation, the better the network. Indeed, the best networks don't encourage just participation, but also the kind of engaged genre-bending and hands-on participation that includes embracing the technology in a way that means greater and greater numbers of participants, spread throughout a greater number of areas within the network, can work and rework to varying degrees the technological infrastructure of the communication network itself. The results of these qualities—spreading grassroots participation and enduring piecemeal technological and ultimately stylistic or genre communication hackability—translate as a decentralizing force. In the case of Egypt, the effect was decentralizing as both a political and a news-media reality.

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