Abstract:
In 1984 William Beeman published a brief but useful essay on the media ecology of Iran before, during and after the revolution. After briefly discussing the relationship between interpersonal gossip ("the grapevine"), and state television and radio, he discusses the dramatic changes in the news media as the revolution progressed, only to settle back into its original role as a voice for the regime—albeit a new regime. The Egyptian uprising had new elements absent in the Iranian revolution, most notably social media and satellite television. Social media does not replace either "the grapevine" of networks of face-to-face interaction nor the monodirectional power of television (which was, in fact, somewhat less unitary than 1970s Iran because of satellite programming). Rather, it offers a way to extend the "grapevine" networks to link otherwise geographically separated individuals into an entirely new public sphere, on the one hand, and to appropriate, supplement, comment on and reframe other media on the other. The revolutionary media ecology of Egypt—in particular the ways various media index, image and influence one another—suggests that (unlike Iran) whatever the ultimate political outcome of the uprisings, the mediascape of Egypt after the revolution will be significantly different than it was before January 25.
At times newly introduced mass media have produced revolutionary effects in the societal management of time and energy as they forged new spaces for themselves. Thus media are cultural forces as well as cultural objects. In operation, they produce specific cultural effects that cannot be easily predicted (Beeman 1984: 147).

Revolutions are extraordinary times in any society. As they break down pre-existing political, economic and social structures, they usher in periods of enormous creativity and imagination. In his work on social and cultural process, anthropologist Victor Turner described this period as "anti-structure", that period in which the structures of everyday life of the immediate past have been disrupted or overturned, but new structures have not yet emerged to replace them (1969). Borrowing the language of ritual studies, Turner argues that as revolutions move a people from one state to another, they usher in a period of "liminality", in which the world is turned upside down and old rules do not apply.

Unlike traditional rites of passage, however, in which the outcome of the process is known, during a social and political revolution the contingent nature of the future engenders a state of creativity, energy and imagination in which transformational possibilities seem endless (1974).

Media play at least two key roles in this process. On the one hand, their institutional roles — their relations with the state and communities of reader/viewers — may be abruptly changed. On the other hand, as social forces they will play various roles in the revolutionary process. These processes are recursive: transformations in the relations between press and state, for example, will affect the capacity a medium has for contributing, through its representation of various narratives and key symbols, to social change. And the reverse is also true: changes in the ways media represent events in society can lead to shifts in institutional relations between various media industries, as well as between media and their audiences, or with the state.

One of the few efforts to analyze such processes is a brief but insightful essay by William O. Beeman on the media ecology of Iran before, during and after the revolution (1984). After briefly discussing the relationship between interpersonal gossip ("the grapevine"), newspapers, and state television and radio, he discusses the dramatic changes in the news
media as the revolution progressed, as well as the way these mainstream media settled back into their original role as a voice for the regime—albeit a new regime. This paper takes Beeman's approach and applies it to the ongoing revolution in Egypt. I am particularly interested in those forms of media absent in the Iranian revolution, most notably social media and satellite television, and curious as to their effects on what I assume to be essentially conservative tendencies by mainstream media.

The Egyptian Media Ecology Before the Uprising

Egyptian media before the January 25 uprising were deeply implicated with the state. Newspapers in Egypt could, in fact, be classified according to their distance from the state:

1. **State newspapers** served as the voice of the government. Their editors were appointed by the Ministry of Information and the newspapers were funded in part from state coffers. State newspapers not only reported events from the government's perspective, but constructed heroic narratives around the persons of leading government figures, and the Mubarak family in particular.

2. **Party newspapers** are published by officially sanctioned political parties. Fourteen of Egypt's political parties had the right to publish their own newspapers, receiving a small subsidy from the government and sometimes the use of government presses. Most of these were small, weekly publications, with the exception of the daily newspapers published by *Al-Wafd* and *Al-Ahrar*. Although by definition these newspapers took anti-government positions on many issues, state domination was exercised through control of subsidies, and journalists and editors were liable to prosecution under emergency law if they violated certain taboos, such as direct criticism of the president or his family.

3. **Independent newspapers**, also often called opposition newspapers, are for-profit newspapers licensed by the state. The most prominent are *Al-Masry Al-Youm*, *Al-Dostor* and *El Shorouk*. Owners of independent newspapers must be cleared by several security and intelligence agencies in order to receive a state licensure, and the State Information Service can revoke the license at any time. Some have been required to (pay to) use state presses to publish. Independent newspapers were not pre-censored but were subject to prosecution under vague laws that prohibited journalists and broadcasters from saying or writing things that might damage “the social peace,” “national unity,” “public order” or “public values.” Part of the genius of the regime was that such laws were inconsistently enforced. No journalist, blogger or television reporter knew exactly where the lines were drawn or when the police might show up because they had crossed an invisible line. This
produced a self-censorship far more efficient and cost-effective than direct pre-censorship would have been, while allowing the regime to state truthfully that there was no state censorship of news.

4. International newspapers. The foreign press is usually subdivided into regional and international, the former consisting of other mostly Arabic-language newspapers (but including those published by Arab communities seeking press freedom in Europe), and the latter consisting of newspapers in languages other than Arabic and published from sites outside the Middle East. Although the international press is free from both censorship and prosecution, it is against the law to “damage Egypt’s reputation abroad” by criticizing the government in foreign media, making sources for stories on Egypt necessarily less forthright in speaking to foreign reporters than they might otherwise be.

Broadcast television in Egypt followed a similar pattern of domination by the state. Since its establishment in 1960, Egyptian television has always been regarded as the voice of the Egyptian government. Terrestrial channels and Egyptian satellite channels are under direct government supervision, operation and ownership. The Egyptian Radio and Television Union or ERTU, housed in the Maspero Building in central Cairo, is the state agency that operates all terrestrially broadcast television in Egypt. Since 2009, ERTU has also included the Nile TV International satellite network. Both the ERTU and the television sector chairmen are appointed by the Minister of Information.

A handful of private channels exist but continually face the dilemma of creating programming that will attract audiences without provoking the authorities. The first private channel was Dream TV, established in 2001 by Egyptian businessman Ahmed Bahgat. Another major private TV channel is OTV (now ONTV), owned by Naguib Sawiris. All private channels are subject to indirect control by ERTU, which is the main shareholder of Egyptian Media Production City (EMPC) and Nilesat, services crucial to private broadcasting. Additionally, companies producing television shows in the EMPC require licenses from the Public Authority for Investment and Free Zones, which can suspend or refuse to renew licenses in the case of questionable content. And, of course, Egypt's emergency law granted the government complete freedom to punish political criticism. Among other things, ERTU forbade rival television news programs, so private channels had to make do with talk shows and political commentary. In 2010, on the eve of the revolution, Reporters Without Borders ranked Egypt 127 out of 178 in its Press Freedom Index, which evaluates both print and television newsmaking.
The Internet began in Egypt as a university intranet system that connected to the global Internet in 1993. In 1994 the government created the Regional Information Technology and Software Engineering Center (RITSEC) which provided free internet access to public and private corporations, government agencies, NGOs and professionals (Kamal and Hussein 2001). Private Internet providers were licensed in 1996, and in 2002 the government began to offer “free” dialup Internet services through a revenue sharing agreement between private ISPs and the national telephone company (Elamrani 2002). These measures at making Egypt a Middle Eastern leader in Internet use were effective; there were nearly 20 million Internet users in Egypt by the time of the uprisings (CIA World Factbook).

With the rise in Internet use came a rise in the importance of social media, especially between 2005 and 2010. These did not replace either "the grapevine" of networks of face-to-face interaction nor the monodirectional power of television (which was, in fact, somewhat less unitary than in 1970s Iran because of satellite programming). Rather, Facebook, blogging, Tweeting and other social media offered ways to extend the networks of small communities of practice, especially (but not exclusively) resistance movements, by linking otherwise geographically separated individuals into entirely new public spheres, and enabling them to appropriate, supplement, comment on and reframe other media by linking, embedding, quoting and commenting.

**The Changing Functions of Media During the Uprising**

The role of state media in the uprising was to offer a state counter-narrative to the revolutionary discourse offered by international media and social media. Successful efforts were undermined by a number of factors: availability of alternative media, the resignation of key players, and the failure of party leadership to supply a consistent counterrevolutionary narrative.

State media were apparently taken by surprise by the size, scale and media sophistication of the uprising. Like other state institutions, media sought to use their traditional toolkit for dealing with the uprising. They ignored the uprising as long as possible, broadcasting images of calm areas of Cairo even as tens of thousands were gathered mere blocks away. They subsequently created counter-narratives, in which the numbers of protesters was underreported, protesters were described as hired thugs and paid hooligans, and the entire
protest movement was ascribed to foreign influences who wanted to damage Egypt (variously Israel, the United States, Iran, and Al Qaida). These stories were frequently inconsistent, as journalists attempting to report events received no clear and coherent leadership from the Ministry of Information. The credibility of the counter-narratives was further cast into doubt by the resignations of high profile media figures such as Mahmoud Saad, Soha El-Nakash and Shahira Amin over the increasing credibility gap.

*Al-Ahram*, the state-controlled newspaper with the highest circulation, offers a telling example of the ways state media operated as they tried to figure out how to cover the uprising. Initially it ignored or downplayed the protests. On January 26 it reported protests in Lebanon but not in Tahrir Square, describing instead how citizens had celebrated Police Day by exchanging “chocolate and flowers” with policemen. On February 3 the front page headline of *Al-Ahram* Arabic daily read “Millions march in support of Mubarak.” Although *Al-Ahram* reporters signed a letter asking the paper’s editor to distance the newspaper from the government, no steps were taken in this direction until February 7, when the newspaper’s editor-in-chief, Osama Saraya, hailed the “nobility” of what he described as a “revolution” and demanded that the government embark on irreversible constitutional and legislative changes. Following Mubarak's resignation, the newspaper’s headline trumpeted “The people have ousted the regime.”

Independent news media were bolder in covering the protests. *Al-Masry al-Youm* in particular offered consistent, reliable coverage. But perhaps the most notable example was the emotional February 7 interview of political activist Wael Ghonim by Mona el-Shazly on Dream TV, which galvanized the uprising at a crucial point.

Internet use exploded in Egypt during the uprising as traditional users discovered its political power, and new users were attracted by the uses to which social media sites were being put. Facebook alone garnered an extra one million users after Internet service was restored on February 2 (up from 4.2 million people in January to 5.3 million in February). The state-owned Middle East News Agency (MENA) reported that during the uprising Egypt had the largest Facebook community in the Middle East.

Several elements made social media particularly effective at this stage. First, there was the capacity to point users to other sites, such as blogs or international media reports. Second, most links were accompanied by a brief framing message. That is, a message
might point to a state media story about foreign influences and offer a mocking message such as "Oh yeah, because the U.S. and Al-Qaida work so well together," pre-framing the story for those who click on the link. Facebook offers lengthy narratives to accumulate as others add to the commentaries.

The multiple levels that social media could play are well illustrated by Piggipedia, a Flickr “group pool” to which are being uploaded the photographs and names of members of the state security forces with the aspiration “that they can be brought to trial.” Piggipedia began before the January 25 uprising, one of several initiatives intended to disrupt the practices through which the regime put down protests and anti-regime activities. The idea, according to one of the organization’s founders, was that “in every single event, demonstration or strike we have to snap at least one photo of the police officers, corporals, and plainclothes thugs present” and upload it to the site. Piggipedia was thus a social medium that invited protesters to share photos from their anti-regime activities, and that could serve as a resource from which bloggers and other media could draw photos. But Piggipedia was also an act of resistance that sought to turn the tables on state security in important ways. First, members of the state security apparatus who spied on and kept files on the people of Egypt on behalf of the regime now became themselves subjects of a gaze. Second, the site sought to meet the secret gaze of the security apparatus with a public gaze that would expose security officials to their families, friends and neighbors. Nor was the security apparatus unaware of this; among the documents seized in State Security offices was one describing the “Piggipedia threat.”

It is important not to overemphasize the importance of the Internet, whose penetration in Egypt was only 20 percent. This mistake was made by the regime when it began shutting down the Internet in Egypt on January 27, instructing ISPs to disconnect their services or lose their licenses. The regime also took down Egyptian country code Domain Name Servers, halting all traffic to and from local sites. Finally, Internet Exchange Points (IXPs) were disabled, severing in-country connectivity. Approximately 91 percent of Egypt’s networks were effectively suppressed by January 29. The government also shut down mobile texting and Twitter, cut off Al Jazeera Arabic TV, and temporarily stopped all mobile telephone service. While many people found workarounds – long distance calls to friends abroad enabled others to post Tweets and Facebook comments, people could access dial-up services via long distance telephones, and so forth – less than ten percent of the population had access to, or could afford such solutions.
The Mubarak regime presumably expected disruption of communication would slow political agitation by cutting off leadership and coordination. If so, the government clearly misunderstood the popular nature of the movement:

Although we may never know the true impact, in fact it likely sped up the regime’s fall. In the absence of new technologies, people were forced to rely on traditional means of communication, including knocking on doors, going to the mosque, assembling in the street, or other central gathering places. Thomas Schelling won a Nobel prize in part for discovering that in the absence of information, people will coordinate by selecting a focal point that seems natural, special or relevant to them. Given the protests, Tahrir Square was the obvious focal point. By blocking the Internet, the government inadvertently fueled dissent and galvanized international support for the people of Egypt (Bowman 2011).

Ironically, the shutdown harmed the business economy more than the protests, as the banking system and stock exchange all but collapsed for several weeks, and hundreds of millions of dollars were lost from electronic transactions.

**The Role of International Media**
International media played two crucial roles in the uprisings. First, they offered credible alternatives to state media for Egyptian viewers. Second, they served to shape public opinion outside Egypt.

During the uprising, Al Jazeera played a particularly notable role as an alternative to state media stories about riots and looting in Tahrir by offering live, continuous coverage of the protests to a worldwide audience. The government responded by trying to censor the channel. At one point, editors were threatened. Subsequently, six key people were arrested and taken into custody. Shortly after, police entered and confiscated equipment and turned off power. The regime also cut off Al Jazeera's access to Nilesat, one of the main satellites pipeline through which their coverage was broadcast to the world. The network kept coverage going by uploading podcasts and videos to their web site, and a coalition of other Arab networks interrupted their own programming to share the
airwaves and enable Al Jazeera to continue to broadcast live. In addition, Egyptians connecting to the two other widely used satellite providers in the Middle East, Saudi Arabia-based Arabsat and France-based Hot Bird, continued to receive Al Jazeera.

Outside of Egypt, and particularly in the United States, Al Jazeera's footage and news coverage became important for networks covering the uprisings as a story. US foreign policy in turn was heavily influenced by CNN, BBC and Al Jazeera coverage, all of which mostly represented the uprisings as a genuine popular democratic uprising. US support for the Mubarak government, long a centerpiece of US policy in the Middle East, was based on the assumption that the autocratic regime was all that stood between Egypt and chaos. This was, in turn, bolstered by Orientalist stereotypes that Arabs were culturally unprepared for, or incapable of democracy. Given the relatively peaceful nature of the protests, the demands for greater democratic representation, and the presence of Egyptians of different classes, faiths, genders and classes represented in television images, as well as the representation of the regime's clumsy, brutal and ineffective efforts to suppress the protesters, the United States moved relatively rapidly from strongly endorsing the regime in the early days of the protests to calling on Mubarak to respond to popular demands.

**Egyptian Media after Mubarak**

As signs in Tahrir Square reading "Thank you Shebab al-Facebook" and graffiti praising Twitter suggest, social media have taken on a whole new importance in post-Mubarak Egypt, not only among those who participated in the uprisings, but for Egypt's state media, for political parties, and for the military council that has, at least temporarily, replaced Mubarak at the apex of Egypt's government.

Leaders of the protest movement continue to use social media as a tool to guide the ongoing revolution in the democratic directions they wish it to move. Blogs and Facebook pages such as "We Are All Khaled Said" continue to serve as forums for discussing social ills and the collective actions needed to redress them. Blogs are playing a significant role in the changing internal politics of the Muslim Brotherhood.

And social media continues to serve as an agent of change. Piggipedia, for example, took on a third level of resistance after the revolution, becoming a source of opposition to attempts to simply reincorporate the old state security system into a new system. This
function was given a huge boost when protesters who entered the state security headquarters in February 2011 found digital image archives of officers and uploaded them to Piggipedia.

Yet the interim rulers have also tested the power of the groups that used social media so effectively in setting off the January 25 uprisings. The social media youth movements could not swing a "No" vote on the constitutional changes endorsed by the military, nor could they inspire much anti-military sentiment after the army arrested and tortured protesters on March 9. Yet these same sites proved able to help call a hundred thousand protesters back into the streets to support the prosecution of Hosni Mubarak.

The role of social media in Egypt's changing political culture continues to evolve as it is used experimentally for a variety of forms of political communication. In April 2011, the prosecutor general announced the detention of Hosni Mubarak on Facebook, rather than calling a press conference. The same month some 1,400 university professors used Facebook as a vehicle to demand the removal of Higher Education Minister Amr Ezzat Salama and demand reforms of higher education.

The press also continues to transform itself. *Al Ahram* apologized to the Egyptian people on February 13 for its decades of “bias in favor of the corrupt regime” and pledged for the future “to always side with the legitimate demands of the people” and to become “the conscience of this nation”. In so doing, it took a further step toward distancing itself from the government for whom it had so long been a mouthpiece. It has, like electronic state media, been driven by uncertainty about its role in the new Egypt that the pro-democracy protesters are trying to create.

In addition, state media underwent a complete reshuffling of leadership positions in late March. The government had earlier hinted that it might allow editors to be elected by members of the press syndicate, but eventually settled for a mere reshuffling of positions. These changes have failed to appease many staff members, who are calling for more dramatic reforms. Staff point out that the new faces are mostly long-time players as comfortable with the traditional ways of doing things as the people they replaced, and many of the sacked leaders have been kept on as consultants.
Still, just how far-reaching changes in independent and state media could become was dramatically illustrated on March 2 when Prime Minister Ahmed Shafiq was grilled mercilessly by novelist Alaa El Aswany on the television show Baladna bil Masry and subsequently resigned. It was a clearly unplanned moment—Shafiq had been a guest on the previous talk show alongside the television company's owner, Naguib Sawiris, and had agreed to stay on and continue the conversation as the new guests arrived. Many in the national audience were deeply offended by Aswany's complete lack of reserve in confronting the head of the government, but after Shafiq's resignation the transformative agency of an open media could not be denied.

But the new independence of the media apparently does not extend to the military itself. While the military has been responsive to popular protest against the former regime, it is far less patient with criticisms directed at its actions. For example, the seizure and torture of protesters on March 9 was underreported in the Egyptian press. Many of the stories that did appear were based primarily on army statements. On March 23, the interim cabinet headed by Essam Sharaf imposed a theoretical gag order on the media, suggesting that news on military arrests, tortures and secret trials will be even more deeply buried.

Yet social media continue to serve as an alternative to mainstream media. Several March 9 victims gave public testimony about their experiences at Cairo’s Press Syndicate. Given the scant attention Egyptian and international media paid to the event, some speeches were videotaped, subtitled in English, and posted to YouTube, others posted to Facebook pages, sometimes in multiple languages. Only when Amnesty International issued a statement on a subset of victims—women subjected to "virginity tests"—did these events receive significant mainstream media attention. Even here, many Egyptian news media quoted foreign news sources, to distance themselves from the reporting, or entirely quoted army spokespersons, without interviewing victims.

The Cultural Ecology of News in Post-Mubarak Egypt

A media ecology refers to the dynamic, complex system in which media technologies interact with each other and with other social and cultural systems within a particular social field, and the ways these interrelationships shape the production, circulation, transformation and consumption of images, texts and information within this system. In Egypt's current revolutionary phase, the media ecology is unstable, in flux, as
the myriad of institutions and technologies adapt to the dramatically changed – and changing – economic, social and political climate.

In Beeman's account of the media ecology of revolutionary Iran, within a year after the revolution the news media "had returned to their roles of supporter of the dominant state ideology", although the ideology was now that of the Islamic Revolution (1984: 163). Looking at other revolutions, it is easy to imagine other possibilities. In post-Soviet societies, the enthusiasm of the anti-structural period, in which a new society was being constructed out of the pieces of the old, led in many cases to nostalgia for the structure of the Soviet past, as the new society failed to live up to what had been imagined for it (Klumbyte 2010). In Dominic Boyer's superb work on this topic, East German intellectuals, accused of being insufficiently grateful for their new Westernized, democratic lifestyles, recognize that their nostalgia is not really for the Soviet past, but for that period of antistructure, when anything seemed possible (2005). The possibility that state media will return to its role as an uncritical voice for the state is a real possibility, as is the prospect that a sector of the media will become an apologist for the “good old days” of the Mubarak regime as the new Egyptian polity struggles to invent itself and tries to grapple with Egypt’s intractable economic conditions.

Finally, there is the evolving role of social media to consider. Beeman notes in his analysis of media in the Iranian case that cassette tapes were wielded with great effect as opposition media during the revolution (see also Sreberny-Mohammadi and Mohammadi 1994). Like social media in Egypt, cassettes in Iran were a relatively new medium whose political potentials were only just being revealed. Cassettes derived part of their effectiveness as examples of Enzenberger's "new media," in which ownership of the means of consumption also meant one owned the means of production (1970). Cheap, easily made, and simple to distribute, cassettes were functionally different than the "old" broadcast media in which a relatively small set of producers broadcast messages to a substantially larger body of consumers. Such new media proved extremely difficult to control, and Beeman notes that after the revolution, cassettes continued to play a significant role as an opposition media — now in opposition to the new clerical regime, rather than to the dictatorship of the Shah. In Egypt, social media revealed in January 2011 a set of crucial political capacities that in turn affected all the other major elements in the media ecology. Following the uprisings, the inability of the Shebab al-Facebook to produce a "No" vote on the constitutional referendum, or to generate significant protest
against the military for the detention and torture of protesters on March 9, emphasized its limitations, even as the protests on April 8 for the prosecution of Mubarak showed that social media still could exert considerable political power under the right conditions.

Digital media exhibit many characteristics of Enzenberger’s “new media” but may also represent a shift in mediated communication of a whole new order. While resembling new media in its production capacities, they offer far greater potential to selectively quote, aggregate, transform and comment on other media. Moreover, they encourage, and in some cases necessitate, coproduction between spatially dispersed producers. Finally, their distribution capacities are truly global, and public, in ways that make it extremely difficult to control, as the Mubarak regime learned. It seems likely that social media will retain its character as a site for social and political protest into the future, even as the new Egyptian government or governments seek to exploit its or their capacities for state-building.

Egypt's media ecology is currently best characterized as being in an experimental phase, in which journalists, editors, military leaders, officials in old and new political parties, bloggers, and many others are seeking to find a new balance of roles and relationships. Every action — from the confrontation of a political leader on television, to the prosecution of a blogger — is an experiment whose political, economic and social consequences will shape subsequent experiments. These myriad contingent actions will collectively restructure Egypt's media ecology as the revolution continues to unfold. The revolutionary media ecology of Egypt — in particular the ways various media index, image and influence one another — suggests that, unlike in Iran, whatever the ultimate political outcome of the uprisings, the mediascape of Egypt post revolution will be significantly different from what it was before January 25.

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For example, in 2008 Ibrahim Eissa, the outspoken editor of Al Dostor newspaper, was sentenced to two months in prison on charges of insulting President Mubarak for reporting—accurately, it turned out—about his health. Eissa subsequently had to fight civil suits by NDP members. Ultimately he was pardoned by President Mubarak. Eissa is wealthy, educated and well-connected. The government has no desire to actually keep him in prison. Rather, the case sent a chill through the Egyptian press, as it was intended to do. In 2010, after his newspaper was bought by a new publisher, Eissa was fired for agreeing to publish an article by Mohamed ElBaradei calling on Egyptians to boycott the unmonitored 2010 elections.