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“Facebook to Mobilize, Twitter to Coordinate Protests, and YouTube to Tell the World”: New Media, Cyberactivism, and the Arab Spring

Mohamed Arafa and Crystal Armstrong

Abstract

Research on media and contentious politics in the Arab world point to the vital role that social media played in the Arab Spring. For the purposes of this article, the Arab Spring is defined as a series of demonstrations and democratic uprisings—and in the cases of Libya, Syria, and Yemen armed rebel movements—that arose independently and spread across the Arab world from Tunisia and Egypt to Yemen, Bahrain, Libya, and Syria in 2010-2011 and beyond. This article advances the theoretical assumption that while not causing the Arab uprisings, New Media (defined here as all forms of digital communication technology including satellite television, cell phones, social networking, video-blogging, and citizen journalism platforms that allow broader dissemination and participation than traditional print or broadcast media) provided the technical infrastructure for these uprisings to develop, sustain, and intensify over relatively short periods. With this assumption at its focus, this paper digs out the political, economic, social, and cultural roots of the Arab Spring. It explores how Arabs’ hunger for decentralized news and information paved the road for the organic growth of a new breed of Arab “citizen journalists.” It describes how New Media technologies, which Larry Diamond (2012) of Stanford University calls “Liberation Technologies” have combined words and images on iPhones, Blackberries, laptops, and social media platforms and managed to turn previously underground oppositions in several Arab countries into Virtual Public Spheres. It explains how the so-called “Generation-in-Waiting” who could no longer wait and took to the streets in waves of demonstrations against police brutality, economic deprivation, corruption and dictatorship. It then examines how these Liberation Technologies helped to convert Arab subjects into engaged citizens. It assesses how these revolutionaries broke the government monopoly on traditional media and used New Media to mobilize, organize, and take to the streets. Furthermore, it explains how this enabled the Arab revolutionaries to “occupy” in a matter of days, not just the virtual cyber-space, but also the physical space including Habib Bourguiba Avenue in Tunis, Tahrir Square in Cairo, Pearl Square in Manama, and the University Quarter in Sanaa, which ultimately brought the fall of entrenched dictators Zine El Abidine Ben Ali of Tunisia, Hosni Mubarak of Egypt, Ali Abdullah Saleh of Yemen, and Muammar Gaddafi of Libya. Finally, the paper addresses the challenges academics have, and will likely continue to face, as we seek to measure, analyze, and assess the role of social media in political dissent and revolution.

What's in a name? Dissecting Similarities and Differences in Uprisings

To date, there is no official and consistent consensus on what to call the revolutionary movements that have spread across the Arab world beginning in December 2010 in Tunisia, spreading to Egypt, Yemen, and Libya in 2011, and still going on in countries like Syria and Bahrain. Some analysts call these movements the “Arab Spring” drawing on the eastern European precedents of 1989, which in turn draws on the Prague Spring of 1968. Others refer to the events as the “Arab democratic wave.” A third group of observers call these movements the “Arab rebellion.” A plurality of Arab analysts and supporters of these revolutionary movements prefer to describe them as an “Arab Awakening,” an expression with clear antecedents in the social, national, constitutional, and even Islamic modern reformist movements of the 19th and early 20th centuries in this part of the world. Whatever various analysts and observers call these movements, they unanimously agree that these popular uprisings in the Arab world are certainly historical game changers (Willis, 2011). When western observers and media analysts started to use the term “Arab Spring” to refer to the demonstrations and protests that spread across the Arab world in 2011, it was not the first time the term was used in an Arab context. Back in 2005, western observers used the term “Beirut Spring” and the “Cedar Revolution” interchangeably to describe the Lebanese mass demonstrations against the Syrian military presence in their country, following the assassination of then prime minister Rafic Hariri on February 14, 2005. The protesters demanded an end to what they perceived as the Syrian occupation of Lebanon, resignation of the pro-Syrian Prime Minister Omar Karami and his cabinet, and holding free parliamentary elections. The initial success of these demonstrations that resulted in the pull out of the Syrian troops from Lebanon and the collapse of the Karami government were touted by some western politicians and media experts as clear signs that democracy was coming to the Arab world via Beirut.

As events unfolded in the following months, the Beirut spring unfortunately proved to be more wishful thinking than a social or political reality. This did not stop neoconservatives in and outside the George W. Bush administration from promoting a belief that the American invasion of Iraq and the toppling of the Saddam Hussein regime would bring Jeffersonian Democracy to the country and spark a democratization wave in the Arab world. Beginning in March 2005, those conservative ideologues started to use the term “Arab Spring” as part of the foreign policy lexicon in their appearances on conservative and mainstream media outlets. As a consequence, numerous media commentators in the United States began to use the term Arab Spring to suggest that a spin-off benefit of the invasion of Iraq would be the flowering of western-friendly Arab democracies. The 2003 assumption died in the long Iraq war and the failure of the post-war democratic experience in the current failed state of Iraq.

Several years later, the self-immolation of a young Tunisian street vender, Mohamed Bouazizi on December 17, 2010, sparked an Arab mass fire which is still (in 2015) burning and is often referred to as the Arab Spring. A Lexis-Nexis search on the use of the term Arab Spring to describe the recent Arab uprisings shows that the term first appeared on January 14, 2011, in a *Christian Science Monitor* editorial about the fall of Tunisia's dictator Ben Ali. then on January 25, the first day of the Egyptian “Facebook revolution,” Mohamed al Baradei, Egyptian opposition leader, Nobel peace prize winner, and former

director general of the international atomic energy agency (IAEA), used the term “Arab Spring” to characterize the democratization movements in the Arab world in an interview for the German magazine *Der Spiegel* (Follath, 2011). The term thereafter became an intrinsic part of the framing of news about the Arab upheavals of 2011 in global media. While some scholars approach the “Arab Spring” as though it were a monolithic phenomenon, others (Baines, 2012) rightly point out the fact that while there were several common features and similarities among these democratic movements in various Arab countries, there was much about each of them that was unique. These scholars noted both the common threads of the Arab democratic movements as well as the uniqueness of each individual movement.

Despite the recognized fact that the Arab uprisings were not a monolithic phenomenon, they do share many common features worth noting. These include high numbers of youth participation, a structure lacking traditional hierarchical leadership, non-violent forms of contentious politics, evolving goals, and a degree of shared Arabic language and cultural practices- contributing to shared slogans and protest tactics.

Youth-Driven and New Media-Channeled Large Protests

All Arab uprisings included large demonstrations primarily driven by younger citizens using New Media such as cell phones and social networking platforms to organize, mobilize, and circumvent state controls over traditional media and public spheres. The New Media we are referring to here are not just technologies that function as delivery systems. They are also participatory cultural systems (Jenkins, 2006). While the role of more seasoned protesters is not to be ignored, the high numbers of youth participation in the uprisings, and their particular reliance on and tendency to innovate with New Media is of particular interest for this paper.

Non-Hierarchical Uprisings

The Arab Uprisings did not take the shape of traditional protest movements. Initially, the uprisings lacked any visible leadership, charismatic individuals, or vanguard groups in any of the grass roots movements in Tunisia, Egypt, Bahrain, and Yemen (Shah & Sardar, 2011). As Merrick Nelson (2012) noted, the Internet-based New Media allowed many individuals the opportunity to participate in these uprisings to create change. These revolutions did not begin nor were they sustained by any international forces or opposition political parties. They came into being and continued by grassroots mobilization of dissatisfied citizens. Traditional political ideologies and political parties were in fact absent from many of the Arab protests, at least in their early stages. Even Islamists, the purportedly best-organized political opposition groups in Egypt and Tunisia, were playing catch-up with the *revolutions* in Tunisia and Egypt. This particular trait of the Arab uprisings proved to be an asset rather than a deficit for these uprisings. Had there been visible leaders, it would have been far easier for the dictatorial powers of Ben Ali in Tunis, Mubarak in Egypt, and Ali Saleh in Yemen to target them for arrest or worse, and thus decapitate the revolutions in their respective countries. The absence of consistently recognized protest leaders and official mouthpieces for the uprisings made a top down approach to quelling dissent virtually impossible for dictators.

What form did leadership take in the various uprisings? Howard and Associates at the Project on Information Technology and Political Islam at the University of Washington assert that instead of a revolutionary leadership, there were prominent nodes in the digital networks, people whose contributions held sway, and managed to organize and mobilize turnout (Howard et al., 2011, p. 10). Instead of known or identifiable political leaders, there were what may be called “Digerati”—a portmanteau, derived from “digital” and literati—who are active participants in, or are in-the-know of, the digital revolution, or simply, those who may be considered members of the elite of the online communities in these countries. With no immediately easily identifiable leaders for these uprisings, the approach chosen by oppressive governments of Ben Ali, Mubarak, and Ali Saleh was bloody crackdown on protesters in the streets, a path that Libya’s Qaddafi took until his demise and Syria’s Bashar al Assad seems to be following to date (Ross, 2011).

Non-Violent Forms of Contentious Politics

These demonstrations/uprisings were mostly, or at least began as, non-violent forms of contentious politics. They reflected acts of desperation and highlighted the public’s frustration over inadequate living standards, police brutality, high unemployment, and human rights violations. In the absence of known individual leaders or well-structured group leadership in the early stages, the goals of the Arab Spring were mostly implicit and evolving over the life span of each uprising. These goals ranged from improved economic conditions to regime change, advancing human rights, and free and fair elections.

Shared Arabic Language and Culture, Shared Slogans, and Protest Tactics

During the uprisings, shared Arabic language facilitated cross-use of the same slogans and tactics of contentious politics in multiple Arab Spring countries. Having multiple related goals, revolutionaries in each Arab country used many of the same slogans and tactics as Arab citizens in other countries, learning from the successes of revolutionary movements in these Arab countries. For example, David D. Kirkpatrick and David E. Sanger of the *New York Times* reported on February 14, 2011, just three days after the fall of Hosni Mubarak about how protesters in Tahrir Square drew lessons from their counterparts in Tunisia. According to the report, young Egyptian revolutionaries had exchanged ideas and advice with their fellow Tunisians. One of these exchanges was a piece of advice protesters in Tahrir Square posted on Facebook during their face off against pro-Mubarak forces. It read, “Advice to the youth of Egypt: Put vinegar or onion under your scarf for tear gas” (Kirkpatrick & Sanger, 2011). Kirkpatrick and Sanger concluded that this “Exchange on Facebook was part of a remarkable two-year collaboration that had given birth to a new force in the Arab world (2011, para 1). They further noted that, “Young Egyptian and Tunisian activists brainstormed on the use of technology to evade surveillance, commiserated about torture, and traded practical tips on how to stand up to rubber bullets and organize barricades” (Kirkpatrick & Sanger, 2011, para 3).

Another example is citizen journalist Gigi Ibrahim who declared, “the Tunisian revolution is being twitterized ... history is being written by the people (Howard & Hussain, 2013). This occurred just after Egyptians heard that Ben Ali fled Tunisia on January 14, 2011. Blogger Tarek Shalaby echoed with, “We will follow it!” (Howard & Hussain, 2013,

p. 53). On January 25, 2011, journalist Hossam el-Hamalawy noted that “tens of thousands r protesting [with] the same chants as the Tunisians” (Howard & Hussein, 2013, p. 53). In the aftermath of an unexpectedly large turnout in Egypt that day, Mahmoud Salem—the blogger and activist also known as “Sandmonkey”—urged his Twitter followers to “please remember, it took a month of protests 4 Tunis revolution 2 succeed . . . Persistence is everything” (Arafa, 2013, p. 99).

Two of the most common tactics that were shared by revolutionaries of the Arab Spring in various Arab countries were the use of New Media, and the utilization of central squares as important physical gathering points in major cities.

The Use of New Media

Young Arabs were some of the first to incorporate the use of the New Media technologies as tools to build and sustain their protest networks and democratization movements. Protestors in the Arab world “appropriated, redefined, and transformed them into effective tools for organizing” their waves of protest (Akin, Encina, Restivo, Schwartz, & Tyagi, 2012, p. 1). New Media opened the online public sphere to Arab women and made it easier, and in some cases, possible for them to participate in the uprisings without being seen as breaking any of their societies’ social codes. The list of Arab women using New Media to impact the uprisings is long and includes Arab young women who were at the forefront of the revolutions in their countries like Tunisia’s blogger Lina Ben Mhenni, Egypt’s Esraa Abdel Fattah, who became widely known as “Facebook girl,” Libya’s Danya Bashir, and Bahrain’s Zeinab and Maryam al-Khawaja. These young Arab women were among the online activists and included “Citizen journalists who became leading news sources for the protesters who took to the streets and the Cybersphere to demand that their entrenched leaders step down, and the citizens who paid the ultimate price, being beaten to death and murdered in those regimes’ desperate attempts to cling to power” (Radsch, 2012, para. 3).

The effective use of these New Media in the Arab uprisings seemed to have a global snowball effect that carried both the organizing methods and the vocabulary of protest in the Arab Spring to every region of the world. Young Arabs used social networking platforms Facebook and Twitter to mobilize people as never before. With Twitter, young revolutionaries in Tunisia, Egypt, Yemen, Syria, and Bahrain were able to organize their ranks/actions and quickly communicate news updates to their people who would not be able to get this information from their country’s state controlled media. Facebook remains one of the most central nodes in Egyptian networks of political information. Global media reporting during the uprisings and since have frequently asserted that youth-led social media played a major role in these uprisings. However, viewing the uprisings too narrowly in these terms overlooks the breadth and depth of the popular mobilization.

The Use of Central Squares

The other shared tactic used in various Arab Spring countries was the use of central squares in major cities: from Egypt’s Tahrir Square to Tunisia’s central Bourguiba Avenue to Pearl Square in Manama, and the University Quarter in Sanaa to the plazas of Syria’s ancient cities, public squares have been at the center of the Arab Spring. The centrality of these spaces to the narrative of the uprisings in the Arab world has largely been overshadowed

in the traditional media by the role that social networking played in fomenting rebellion. For all the praise that has been lavished upon the Arab world's youthful revolutionaries, one must not forget the gray, old spaces where they massed. Says Vishaan Chakrabarti, a Columbia University professor of architecture who frequently writes about public spaces in the Middle East, "A tremendous amount of ink has been used for Facebook and Twitter. But it was just as important for people to have face-to-face contact in public squares to plan their next steps" (Sanburn, 2011, para. 2).

There are enough common features among the Arab uprisings in various Arab states to justify speaking of an "Arab Spring" or an "Arab Wave" of democratic uprisings. However, these uprisings are not monolithic, and the experiences of each Arab state within the Arab Spring has been distinct. Variations amongst the uprisings deserve attention from scholars and the unique origins and conclusions of each provide valuable insights that could benefit those seeking to understand why some of the uprisings resulted in swift change, while others have become protracted conflicts. For example, the military in some countries defected from the regime (Tunisia and Egypt) while part or all of the military in other countries has stayed, at least initially, loyal to the president (Libya, Yemen, and Syria). Some rebels have succeeded in liberating parts of cities (Tahrir Square in Cairo, Pearl Square in Manama, the University quarter in Sanaa), or in the case of Libya, whole segments of the population. The Syrian authorities, on the other hand, have prevented protesters from establishing any such sustaining or consistently thriving liberated enclaves. Likewise, while it would appear each popular uprising began as a strictly domestic affair, the Gulf Cooperation Council (GCC), led by Saudi Arabia, intervened in Bahrain and NATO intervened in Libya (Willis, 2011).

The Arab Spring: A Surprise?

The initial international reaction to the Arab Spring was surprise. After all, these popular uprisings were happening in Tunisia, Egypt, Yemen, Bahrain, Libya, and Syria—places and people who had often been represented within Western democracies through Orientalist tropes—either indifferent to democracy or a threat to it. The fact that these citizens had opinions or the courage to act on them seemed surprising and in itself, revolutionary. Intrigue was added to the world's surprise by the fact that the revolutionaries who created these uprisings made effective use of new communication and information technologies in countries that had been described as relatively slow to embrace new technologies. Even more surprising and remarkable was the breadth and depth of the Arab young women's participation in the public sphere, be it online or on the street during the Arab Spring. In states where women traditionally played less of a role in the public sphere, these high levels of female participation were unexpected.

One of the reasons the Arab Spring seemed to take most communication and political science scholars, observers, and even intelligence communities around the world by surprise is the fact that Arab dictators and their regimes had remarkably avoided what political scientist Samuel P. Huntington called the "Third Wave of Democratization." Beginning in 1974 with the Carnation Revolution in Portugal and extending to the historic democratic transitions in Latin America in the 1980s and Eastern Europe after the collapse of the Soviet Union at the end of the decade, this wave did not touch the Middle East in the same ways it influenced other regions of the world (Huntington, 1992). However, a new

Fourth Wave of global democratization may have begun with the Arab Spring. As Philip Howard et al. (2011) and his colleagues pointed out, by March 2011, the political impact of the early wave of the Arab Spring were significant: Tunisia's Zine El Abidine Ben Ali and Egypt's Hosni Mubarak, two of the region's strongest men, were deposed. Still, some Arab governments responded to the upheaval that had shaken the region in 2011 by trying to appease, and in some cases bribe, their subjects with material benefits including salary increases for both civilian and military employees, increases in food subsidies and unemployment benefits, and promises for measured political reforms. Notable among these governments were Saudi Arabia, Morocco, Jordan, and Kuwait. While these governments managed to, at least temporarily, keep social peace and avoid serious civil dissent, other Arab governments like Syria, Libya, Yemen, and Bahrain could not head off the uprisings. Immediately following the uprisings that toppled regimes in Egypt and Tunisia, protests began in Syria's southern town of Daraa in mid-March after the arrest of schoolchildren who had scrawled anti-government graffiti. These protests quickly spread to other parts of the country, including the capital Damascus, as Bashar Assad's regime cracked down, opening fire on demonstrators. Since then, the violence has escalated, as the opposition turned more to use of arms and the Alawite regime stepped up its retaliation with shelling of neighborhoods. Currently, Syria still functions in constant conflict, with the Islamic State controlling regions of the country, and the Assad regime fighting both against this group, and against other rebel factions.

Protests also erupted in Libya against Gaddafi and his dictatorial regime soon after pro-democracy uprisings succeeded in toppling the regimes in its neighboring countries to the west, Tunisia, and east, Egypt. Inspired by these uprisings, Libyan dissidents had planned a "day of rage" for Thursday, February 17, 2011. On February 15, security forces arrested Fathi Terbil, a prominent lawyer, who had represented families of some of the 1,200 prisoners massacred by Libyan security forces at Abu Slim prison in 1996. Once released later that day, Terbil set up a webcam overlooking Benghazi's main square, where some of the families had been protesting. With help from exiled Libyans in Canada and around the world, the video spread rapidly on the Internet (Mother Jones, 2011). In mid-February 2011, Libyan dissident Najla Abdurrahman begged Western media to pay attention to the bloodbath unfolding in her country. She pointed out that if the Libyan protesters were ignored, Libyan dictator Muammar Qaddafi, who showed no signs of concern over his reputation, internationally, would be able to silence opposition, cut off access from the international community, and continue in his position of power (Abdurrahman, 2011). While Gaddafi could not seal Libya off, the country was locked for months in a civil war that invited NATO intervention and ended with anti-government fighters closing in on Qaddafi's final stronghold in Sirte and ultimately ending his regime and killing him on October 20, 2011.

Roots of the Arab Spring

A majority of academics, Arab-world area study experts, specialists, and media analysts also expressed surprise at the upheavals of the Arab Spring. The unpredicted events that were unfolding across the region raised not just the questions of what, who, and how of the Arab Spring, but also the big question of why now. Why had the Arab world that appeared so resistant to change, seemed to suddenly experience widespread demonstrations,

successful revolutions, socio-political movements, and desire for more fundamental political transformation? A comprehensive review of the literature available yielded a plethora of conditions that might have constituted the root causes of the Arab Spring.

Freedom Deficit and Democracy Deficiency

In the 20 years leading to the Arab Spring, the Arab world lagged behind the rest of the world on most if not all indices of freedom and democracy. Most Arab countries scored poorly on indices of freedom of expression including press and academic freedoms; freedom of assembly, demonstration, and open public discussion; freedom of association and civil society organizations; the rule of law, including independent judiciary, fair trials, and freedom from exile and/or torture; and personal social freedoms, including gender and minority equalities (Arafa, 2013, p. 107). The Arab world also lagged behind other regions of the world in granting political freedoms including electoral processes, political pluralism and participation, and government accountability, openness, and transparency.

Absence of press freedom in the Arab world has been attributed in part to “government ownership and control in some Arab countries; censorship and self-censorship in others; and legal restrictions in almost all countries of the region” (Arafa, 2013, p. 107). The close ties of the Arab press to government and politics in each country have led to lack of media independence and diversity.

In 2009, the year preceding the first Arab uprising in Tunisia, the *Reporters Without Borders Press Freedom Index*, which evaluated 175 countries on the basis of media freedom, ranked the majority of Arab countries at the bottom: Yemen 167, Syria 165, Saudi Arabia 163, Libya 156, Sudan 148, and Egypt 143 (Reporters Without Borders Press, 2009). The report indicated that while national media systems in the Arab world were still lagging on the free press index in 2009, the region as a whole showed both overall improvements and some large gains in specific countries. However, the improved average regional score reflected the fact that in a number of countries, the media environment has benefited from greater access to satellite television service, pan-Arab press, and the Internet, including new formats such as blogs and social networking websites. In Arab countries like Libya, Syria, Sudan, and Yemen independent media were still either nonexistent or barely functional. In those states the press frequently acted as a mouthpiece for the regime. Citizens’ access to unbiased information was severely limited, or dissent was crushed through imprisonment, torture, and other forms of repression (Freedom House, 2008, 2010). In this disparate conventional media environment, the new digital tools including mobile phones, internet connection, and social media provided dissident groups in various Arab counties with vital channels to bypass the government-controlled media, unwilling to print or air any news of civil unrest and opposition to the government.

As the Arab Human Development Report aptly pointed out, freedom to form associations in the Arab countries was restricted in varying degrees by law. Associations and civil society organizations in most Arab countries were subject to various forms of oversight and surveillance (United Nations Development Programme, 2004).

Popular political participation in governance in the Arab world was often completely absent or manipulated to keep it at a minimum. First, political parties in the Arab states were either outlawed or marginalized. Second, elections were either non-existent or manipulated into what Schedler (2006) calls an “Electoral Authoritarianism” tool. After

decades of single candidate referenda, multicandidate presidential elections were held in four Arab states: Algeria in 1995, Egypt in 2005, Tunisia in 2004, and Yemen in 2006. Instead of monopolizing the political arena through military or single-party dominance, the Arab autocratic leaders of these countries permitted their opponents to contest national elections but only after taking all “necessary measures” that assured them that these elections were not to be the “death of dictatorship” that Samuel Huntington (1992) envisioned. Elections in these four Arab countries proved to be effective survival strategies for preserving the regimes while maintaining the false image of a fair democratic process.

Amaney Jamal and Mark Tessler (2008) explained that because of the persistence of authoritarianism across the Arab world, popular support for democracy in that part of the world was widespread. This claim is echoed with evidence by the World Values Survey, which indicated that popular support for democracy in the Arab world was as high as or higher than in any other world region (Tessler, 2011). While this might appear anomalous in a region where ordinary citizens have had little experience with democracy, the absence of democracy may be the very factor that led so many citizens to desire a democratic alternative to the political systems by which they were governed on the eve of the Arab Spring.

Arab Rentier States

As James Gelvin points out, one of the major agreed upon explanations of why authoritarianism, both social and political, has been so prevalent in the Arab world and constitutes one of the deep rooted causes of the Arab uprisings has to do with the state’s control over resources almost across the whole Arab world (Arafa, Auter, & Al-Jaber, 2005). According to Gelvin, “States [governments] in the Arab world are highly dependent on a source of revenue called by economists ‘Rent’” (Gelvin, 2012, p. 7). Political scientists and economists refer to states that rely on income driven from sources other than taxation as “Rentier States” or “Allocation States.” These states derive most of their revenues from renting their resources to both foreign and domestic clients and distribute the rent they receive to local favorite groups. The term is most frequently applied to states rich in highly valued natural resources such as oil and natural gas, but also includes states rich in financial instruments such as a reserve currency and strong banking industry or having trading and re-export centers. It can also be applied to those states that trade on their strategic resources such as permitting the development of an important military base on their territories. Dependent as they are on this source of income, Rentier States may generate rents externally by manipulating the global political and economic environment. Such manipulation may include monopolies, trade restrictions, and the solicitation of subsidies or aid in exchange for political influence. Using a four-criteria scale to determine whether a state can be classified as a Rentier State or not, Egyptian economist Hazem El Beblawi (1990) classified nearly all Arab states as Rentier States.

Clearly, the nature of a Rentier State has the potential to foster or perpetuate authoritarianism. It enables the government to be the dominant economic actor, have monopoly on power, and function without relying on heavy taxation from its citizens for revenue. It facilitates the process by which a government may write a social contract between the state and the citizens that serves as “benefits for compliance” (Gelvin, 2012, p. 8). Several political scientists and political economists have suggested that a Rentier

State is often in a good position to gain long-term political acquiescence of its citizens. They have the ability to buy off their would-be domestic opponents through ties of patronage and lavishing economic benefits on potential opponents (Vandewalle, 1987; Beblawi, 1990).

Second, rent enables the state to provide services to citizens who are not paying taxes in return for these services, enabling the government to legitimize the reverse notion of no representation without taxation. Governments in Rentier States are not accountable to citizens in the same way governments who collect taxes may be. As Anderson (1987) noted, a country with sufficient non-tax revenues “may be virtually [...] autonomous from its society, winning popular acquiescence through distribution rather than support through taxation and representation” (p. 10). Meanwhile, citizens in a Rentier State don’t face a citizenry that can demand accountability or transparency in exchange for taxation.

Arab Police States

A police state is one in which the government exercises rigid and repressive controls over the political, economic, and even social life of the population. Among the Arab countries that have been swept with waves of uprising so far, only Egypt and Bahrain were not run totally as police states. Syria has been a notable example of a state where clear elements of totalitarianism and social control are normalized. The secret police in most Arab states was pervasive and intelligence agents—Al Mukhabarat- were employed at every level of society in order to spread fear and silence amongst any emerging opposition. Writes Arafa (2013), “these secret police and intelligence agents operated either outside of the law or in its shadowy areas. There was little or no distinction between the law and the exercise of political power by the executive branch of government. In the absence of the rule of law, human rights were violated and/or unevenly enforced” (p. 116).

Endless Emergency through Emergency Laws

For decades, several Arab countries have been governed by emergency powers and other exceptional measures by invoking emergency laws even in times of peace. Under emergency laws, police powers were extended, constitutional rights were suspended, censorship was legalized, and due process was often abolished. Emergency laws also limited non-governmental political activity, including street demonstrations, unapproved political organizations and unregistered financial donations. They permitted indefinite detention without trial, hearings of civilians by military courts, prohibited gatherings of more than five people, and limited speech and association. The suspension of the normal due process in the name of restoring or preserving national security and national welfare in several Arab countries helped transfer power to the ruler and allowed the government to arrest dissenters without due process. In most Arab countries that invoked emergency laws in time of peace, and a journalist who criticized the ruler or his policies could find him/herself behind bars, denied due process, and tried in a security or military court often reserved for cases of treason or espionage. Emergency law is typically a temporary measure and ceases when emergencies subside. In some Arab Spring countries, emergency laws dragged on for decades. In Syria, an emergency law has been in effect since the Ba’ath coup d’état of 1963, over 52 years. In Egypt, emergency legislation that was drafted after

President Sadat's assassination lasted all 30 years of the Mubarak era. Algeria's emergency law has been in place since 1992. Meanwhile, regimes in Bahrain and Yemen declared a state of emergency at the height of the uprising in order to maintain power.

Cronyism and Corruption in "Soft Arab States"

In the three decades preceding the Arab Spring, many Arab countries were plagued with several forms of corruption from bribery, cronyism, and nepotism to graft, extortion, and embezzlement. In Egypt on Mubarak's watch, in Tunisia's Ben Ali regime, and in Syria with Bashar Al-Assad, corruption became a way of life, and privilege and cronyism occurred at the expense of competition. These states could be easily described by the term "Soft States" as coined by the Swedish economist Gunnar Myrdal (1968). In Myrdal's Soft States there is corruption fostered by all types of social indiscipline. Myrdal (1968) states, "These social indisciplines manifest themselves in deficiencies in legislation and, in particular, law observance and enforcement; a widespread disobedience by public officials, and, often, their collusion with powerful persons and groups ... whose conduct they should regulate" (p. 208). The Arab states have fit Myrdal's description of "Soft States" that are "Dominated by powerful interests that exploit the power of the State or government to serve their own interests rather than the interests of their citizens. Policies decided on are often not enforced, if they are enacted at all. Authorities in these states, even when framing policies, are reluctant to place obligations on people" (p. 277).

At a high level, numerous loans were granted without collateral by state banks to a selected group of elite who have or were associated with seats of power, many of whom vanished without making payments. At lower and middle levels, population growth and unemployment led many to break the law to avoid poverty in the slums of Egypt, Tunisia, and Syria. Bribes in varying amounts were expected of citizens and over time, were often factored into one's monthly salary. Corruption from the top in these Arab countries generated difficult economic conditions that caused increasingly strong popular resentment, while the regimes used national security and terrorism as an excuse to continue using their emergency laws to crackdown on opposition (Gawhry, 2012).

On a more macroeconomic level, these authoritarian rulers applied neoliberal policies without much consideration for their negative impact on large segments of their populations, and in the process, enriched themselves and their political allies through a corruption-ridden process of privatization of public sector enterprises. These privatization schemes led to crony capitalism and the formation of oligarchic business networks controlled by ruling elites (Noueihed & Warren, 2012). Former Egyptian National Democratic Party (Mubarak's ruling party) leader Ahmed Ezz, who monopolized the steel industry in Egypt, was one of the major symbols of regime-sponsored corruption. Ezz was also widely known as the architect of fraud in the 2010 legislative election in Egypt. In Tunisia, relatives and close associates of President Zine Abidine Ben Ali and his wife, Leila Trabelsi, like Marouane Mabrouk, the husband of Ben Ali's daughter Syrine and Bel Hassan Trabelsi, the President's brother-in-law, had unfair advantages in securing business partnerships with foreign investment companies. Symbols of this crony capitalism were widespread in the Arab world, and included Rami Makhlouf in Syria, sons of Muammar Gaddafi in Libya, and the brothers of President Ali Abdullah Saleh in Yemen.

Huge Youth Bulge: The Arab “Global Generation”

Several scholars (Nelson, 2012; Zhuo, Wellman, & Yu, 2011) concluded that the groups that were directly responsible for igniting and sustaining the uprisings in the Arab world were those age groups that have been dubbed the “Global Generation” by Adeel A. Shah and Sheheryar T. Sardar. This Global Generation consists of over half the world’s population and is made up of young people born post-1980. (Shah and Sardar, 2011). This generation grew up in the digital age that allowed individuals in various geographic locations to experience the same events virtually in real time. In addition, members of this generation who are internet savvy can access vast amounts of information almost instantly and, in turn, depend on that ability for daily functioning. Shah and Sardar (2011) concluded that the Global Generation not only communicates across borders, it displays emotions across borders, creating deeper connections and striving to understand who would otherwise be the “other” (2011).

According to Henrik Urdal, the Arab world has one of the highest proportions in the world of young people among the general population. This phenomenon in demographic terms is sometimes described as a youth bulge, that is, the age group (or cohort) of youth is far more numerous than for all other age groups combined. Arab states with high proportions of youth under age 24 include Yemen at 65.3%, Saudi Arabia at 62.3%, Iraq at 61.7%, and Algeria at 56.5%.

From Tunisia to Egypt, and Bahrain to Libya, Yemen, and Syria, youth have been the face of dissent against longstanding autocratic regimes in the Arab world. The region is facing a demographic bulge in which youth aged 15 to 29 comprise the largest proportion of the population. While youth bulges around the world are described as either challenges or opportunities, they present huge challenges in the Arab world. In other parts of the world, the youth bulge phenomenon has been an opportunity. In East Asia and some parts of Southeast Asia, open economies and strong educational systems are turning youth bulges into opportunities. In contrast, youth bulges in most Arab countries are proving to be huge challenges because of their governments’ inability to put together economic policies that make use of these human resources. These young people, frustrated with lack of jobs, have been at the forefront of anti-government protests and other forms of contentious politics.

Unemployment rates in the Arab world were among the highest globally on the eve of the Arab Spring. Despite high economic growth rates in the region as a whole during the oil boom from 2002 until 2010, unemployment among Arabs remained in the double digit category (Kadr, 2012). While unemployment across all age groups is relatively high, it is almost four times as high for young people compared to other demographic groups. The Arab world has the highest regional rates of youth joblessness in the world (Knickmeyer, 2011), 3.7 times the rates for adults, as compared to 2.7 times the rates for adults worldwide, suggesting that young people in the Arab region suffer from a considerable amount of economic marginalization and exclusion. The problem is region-wide; Qatar is the only Arab country with available data in which youth unemployment rates were lower than the world average -11% among Qatari nationals (Kabbani, 2011).

Heavy Investment in Defense and Low Investment in Citizen's Economic Future

In the years leading to the Arab Spring, most Arab countries invested heavily in defense at the expense of much needed infrastructure investment, improving education and training, widening and diversifying their economic bases, and creating jobs. Most Arab leaders directed the wealth and power of their states towards consolidating their own power and preserving it through their armed forces and national/republican guards. As a result, military spending as a share (percentage) of state gross domestic product (GDP) in the Arab world as a whole was (4.8%) higher in 2010, the year before the Arab uprisings, than that in any other region of the world, according to Stockholm International Peace Research Institute (2012). However, a note of caution is due here. Much of the military spending of the Gulf Arab states is intended to keep the balance of power in the region from titling towards Iran, which spends around \$9.3-9.5 billion annually, and to close the gap with Israel which spends 6.5 of its GDP, \$15.1-16.2 billion a year. This level of expenditure places these two non-Arab countries in the top five defense spenders in the Middle East: Israel second behind Saudi Arabia and Iran third, followed by Iraq and the United Arab Emirates. While huge military spending takes a toll on the budgets of all countries of the Middle East, this burden is somewhat mitigated in the case of Israel since the United States is believed to pay approximately 18% of Israel's military budget (Weinstein 2011).

Arab Media Revolution and the New Arab Public Sphere

While the uprisings in various Arab countries in 2011 appeared to take the world by surprise, there had been another revolution brewing in these countries for at least two decades that did not escape the world's attention. It is the "Arab Media Revolution." It began with the arrival of satellite Arab news TV/networks two decades ago. That revolution "helped shape a new Arab public sphere where discussion and exchange of opinion became the norm" in the Arab world (Noueihed & Warren, 2012, p. 53). Although not yet systematically examined or studied with any level of regularity, there seems to be some link between the current Arab revolutions collectively known as the Arab Spring and the Arab media revolution launched over 20 years ago. Some may even argue that the Arab Spring is partly the result of the Arab media revolution that has been eroding the Arab regimes' control over the flow of information among their populations. The Arab media revolution is believed to have begun with the launch of the Qatar-based Al-Jazeera TV on November 1, 1996.

Al-Jazeera TV was the first satellite television service to emanate from an Arab country and still manage to keep its independence from the government of that country. Although Al-Jazeera is still owned and mostly funded by the government of Qatar, it is independently run by professionals, not by government bureaucrats like other state run media in the region (Auter, Arafa & Al-Jaber, 2003). Qatar's government has very little influence over Al-Jazeera's editorial policies.

Al-Jazeera has introduced a whole range of new styles of television news to Arab TV and Arab viewers. For example, the satellite channel airs an in-depth analytical late evening news program that targets an educated audience with a deep interest in Middle Eastern and international affairs. This news program combines news with extended live reports and

interviews with both newsmakers and specialists. Earlier in primetime, Al-Jazeera airs a news program that covers the main events in the Middle East and the world in a serious, but still more accessible style for a more general Arab audience. This news format was new to both Arab news people and Arab TV viewers alike.

To explain how different Al-Jazeera's news presentations and programming were from what Arab TV has been practicing, this news channel based in Qatar can be compared to Qatar government-owned and run TV. Qatar Television functions as a government organ whose main purpose is to deliver official newscasts in a format that includes a long lineup of either very long items dealing with Qatari leadership news, or very short items dealing with regional and international developments (Al-Jaber, 2002). Television reports are hardly used on Qatar TV because newscasts rely on studio delivery with government control limiting and muting news and program contents (Arafa, 1992). Al-Jazeera, on the other hand, operates as a Western-styled news organization that delivers a 24-hour service of high quality television journalism. Its news bulletins include on-the-spot reports by Arab professional correspondents from the major Arab, Islamic, and world news capitals (Arafa, Auter & Al-Jaber, 2005).

In 1996, Orbit TV introduced Arab viewers to TV talk shows that allowed viewers' participation in discussing political, social, and cultural issues previously considered taboos in the Arab World. Al-Jazeera TV, however, has been credited not only with making it possible to talk about many unpleasant, but necessary subjects and issues in Arab societies, but also with familiarizing Arab viewers with plain language in the public discussion of many topics. In the absence of effective civic societies in a large swath of the Arab World, with its talk shows and public affairs programs, Al-Jazeera provides Arab citizens with an opportunity to engage in political discourse on television, as most are unable to engage directly with their governments.

From its inception, Al-Jazeera TV has targeted a pan-Arab audience, an orientation that explains its focus on regional and international coverage and its reluctance to air domestic news about crime, health, and education from its own home base of Qatar or any other Arab society. Its increasingly rising popularity—its reach is currently estimated at 45 million viewers including 150,000 in the United States (Auter, Arafa, & Al-Jaber, 2002)—is an indication that Arab viewers are indeed hungry for Middle Eastern and international news and that narrow domestic news coverage may not be necessary for media success. A clear example of the prime consequences of the Al-Jazeera's pan-Arab orientation is its coverage of the Second Palestinian Intifada. Al-Jazeera's focus on the cycle of suicide attacks by the Palestinians and the Israeli counter-violence has forced the issue into the Arab living room and elevated the Palestinian problem to heights not seen since the Six Day War of 1967.

Al-Jazeera has been noted for setting in motion the emergence of modern TV journalism in the Arab world (Arafa, Auter, & Al-Jaber, 2005). It has helped create and open up an Arab public sphere by making live debate, talk shows, and news programs featuring interviews with exiled Arab opposition leaders and debates on touchy subjects a norm in Arab satellite TV. It has been instrumental in breaking much of the Arab media taboo on discussing sensitive and critical issues like Islamic fundamentalism, democracy in the Arab World (or its absence), American influence on some Arab governments, human rights abuses, and polygamy.

New Media in the Arab World

Seeking an operational definition of the New Media, these authors adopt cultural historian Lisa Gitelman's view of media as both technologies that enable communication and sets of associated "protocols" or social and cultural practices that grow around these technologies (Jenkins, 2006, p. 13). Thus, the New Media we refer to here are not just technologies that function as delivery systems. They are also cultural systems.

The term "New Media" in this piece of research broadly refers to all interactive forms of communication that use both the first and second generations of Internet technologies—often collectively called New Media 1.0 and New Media 2.0. While New Media 1.0 includes e-mails, chat rooms, list-serves, search engines, and forums, New Media 2.0 includes the second generation of increasingly wireless Internet-related technologies that combine words and images on laptops, podcasts, iPhones, Blackberries, social networking platforms such as Facebook, YouTube, Twitter, Myspace, WordPress, Kik, WhatsApp and Meetup, RSS feeds, text messaging, blogs, wikis, and virtual worlds. The traits of the New Media, the second generation in particular, have made user-generated content an integral part of the online communication process. They make it possible for users to create and modify content and share it with others, using relatively simple tools that are often inexpensive or free.

While Arab satellite TV, and satellite news networks in particular, were going through a technical and programming revolution that helped it enter the era of modern independent TV journalism in the 1990s and 2000s, most Arab countries were making noteworthy progress in acquiring pivotal elements of the information and communication technologies (ICT) made available by the global Information and Communication Revolution.

Interestingly, the first link to the Internet in the Arab world took place in Tunisia in 1991, a country that also happened to host the first successful Arab Spring revolution. Kuwait was the second Arab country to start Internet services in 1992 as a part of its reconstruction after its liberation from the Iraqi invasion forces. In 1993, Egypt, and the United Arab Emirates established links to the Internet (Abdulla, 2007). Jordan linked to the Internet in 1994 (Wheeler, 2004). Qatar, which is the second most Internet-connected country in the Arab world today behind the United Arab Emirates with a penetration rate of 82% (Media Middle East, 2011), started its Internet service in May 1996 through Q-Tel, Qatar's telecommunication corporation. Syria and Saudi Arabia were the slowest states in the region to allow public access to the Internet with regular access not becoming available until the late 1990s. In Syria, for example, even as late as 1997 there were only two places with Internet access—the American Cultural Center and the Syrian Engineers' Association—both located in Damascus. When Bashar Al-Assad became president of Syria, Internet access became more readily available. Before then, many Syrians obtained Internet access via long distance phone calls to Internet Service Providers (ISP) in Lebanon and Jordan. These same practices of long distance remote access to the Internet (via Bahrain) were also common in Saudi Arabia, before the state made access to the Internet available through locally licensed ISPs. Once Internet access was made officially available in the Kingdom, Saudi Arabia witnessed the largest and fastest growth in Internet user population of any Arab country.

There was noticeable disparity in the Arab countries' performance in their attempts to access these technologies. However, as the United Nations Development Programme

(2012) Arab Knowledge Report 2010-2011 noted, “In 2008, 17 Arab States recorded levels of development in technological performance exceeding those observed in all other regions of the world. Four Arab countries have been listed among the top fifty most ready to utilize ICT, all of them Gulf Cooperation Council” states (p. 143). The World Bank’s ICT index (2012), which is based on progress in acquisition of telephone lines, computers, and the Internet and measures a country’s capacity to facilitate the effective creation, dissemination, and processing of information, shows that in 2008, 11 Arab countries witnessed a substantial rise in their score on the ICT index in comparison with 1995.

While the global number of Internet users in the year leading to the Arab Spring (2010) was estimated at little over 2 billion, a survey of 16 out of 22 Arab countries estimated that number at 45-50 million in late 2009. The Arab Knowledge Report (2009) placed the number of Arabic-speaking Internet users in the entire Arab world at 60 million. However, Internet World Stats (2012), which provides data on world population and world telecommunications information including Internet usage put the number of Internet users in the Arab world in December 2011, at close to 87 million among a total population of little over 310 million Arabs, with a population penetration of 35.6%.

One of the ironies of the effective use of the New Media in the Egyptian uprising specifically was the fact that substantial access to New Media among primarily young Egyptians was available largely because of the Mubarak government’s efforts to expand information technology capabilities as a tool for socioeconomic development (Hamdy, 2009). Beginning in 1999, government initiatives included free Internet access, low-cost computers, and the expansion of Internet access centers. According to Internet marketing research firm Internet World Stats, in February 2010, more than 21% of Egypt’s population of 80 million had access to the Internet, and more than 4.5 million used Facebook (Internet World Stats, 2012). Additionally, more than 70% of the population had a mobile phone subscription (Arab Republic of Egypt Ministry of Communications and Information Technology, 2010).

The Complex Relationship between New Media and the Arab Spring

The fact that most Arab revolutionaries have mastered and successfully used the available two generations of Internet technologies does not necessarily mean that these technologies have made these users more democratically inclined. Democratic inclinations, as Jon **Anderson and Michael Hudson** (2008) of the Arab Information Project at Georgetown University pointed out, “Are randomly distributed among Internet actors: there are Internet Authoritarians as well as Internet Libertarians in these—indeed, in all—[Arab] societies. Visions of internet liberation are just that, visions, and not well-grounded theories” (para. 5).

Some analysts and observers in the global media have claimed that the narrative in Arab media, both traditional and New Media, regarding the Tunisian street venter Mohamed Bouazizi setting himself on fire on December 17, 2010, was the first trigger not just for the Tunisian revolution. Uprisings in neighboring Egypt, as well as the domino effect that followed throughout the Arab world, are often traced back to this singular event. However, another New Media narrative had been developing in Egypt, and with it a protest movement had been growing and gathering momentum. That narrative flowed from the “We Are All Khaled Saeed” story.

The death of Khaled Saeed, a 28 year-old Egyptian blogger who accidentally revealed the corruption of Alexandria police in a video he had taken in 2010 and later shared online might have been a contributing catalyst of the Egyptian uprising. In the video that Khaled Saeed posted online was a group of Alexandria police officers sharing confiscated drugs among themselves. Once the Alexandria police learned of the online video, they sent two plainclothes officers who pulled Khaled Saeed from an Internet cafe in Alexandria in June 2010 and beat him to death in the lobby of a residential building. Human rights advocates worldwide claimed that Khaled was killed because he exposed evidence of police corruption.

The Egyptian police and security services have a reputation for brutality and snuffing out political opposition. Within five days of Khaled Saeed's death, an anonymous online activist, whose identity was later revealed as Wael Ghoneim, a Dubai-based Google marketing director, created a page titled "We Are All Khaled Saeed" On the page, he posted cellphone photos from the morgue of Khaled's battered and bloody face, and YouTube videos playing up contrasting pictures of him happy and smiling beside the graphic images from the morgue. By mid-June, 2010, 130,000 people joined the page to view and share updates about the case. Khalid Saeed's death and the posting of his deformed face and bashed head photos and videos online were probably "the starkest example yet of the special power of social networking tools like Facebook even- or especially- in a police state" (Preston, 2011, para. 8).

The Facebook page set up around the death of Khaled Saeed by Wael Ghoneim offered Egyptians a rare forum to bond over their outrage about government corruption and abuses. As the name that Ghoneim gave to that Facebook page, it told these young Arabs that the same atrocity could happen to them if they did not demand change and actively work for it. This Facebook page achieved at least two goals for a nascent change movement in Egypt.

Alternative Media Momentum

The Khaled Saeed movement provided an alternative media pathway to information and collaboration. The government media had claimed Khaled Saeed choked to death on a packet of drugs. The digital images of Khaled on the Facebook page showed that his face had clearly been struck repeatedly and that the official drug story could not be trusted. These images were quickly shared by hundreds of thousands of mobile phone users and 1.8 million members of the Facebook page that carried his name. This alternative medium presented young Egyptians, along with other Arab followers, with a platform where they could not just get the facts about a case of police brutality and corruption, but also express their outrage. The movement offered an alternative forum for citizens and reinforced beliefs that traditional media were nothing more than propaganda mouthpieces for the government.

Political Becomes Personal

This Facebook page turned political events into personal experiences by turning the face of Khaled Saeed into the face of a revolt against corruption and injustice in Egypt, and around the Arab world. Information about Khaled on Facebook gave citizens information about the person who experienced brutality. When the political becomes personal, the level

of engagement, both emotional and physical, can increase, and with this participation may grow as well. After Khaled's death, standing up to Mubarak's regime became more than political conversation. Khaled put a human face on the urgency of standing up to corruption, while providing important news, tools, and resources for anyone looking to stay at the forefront of advocacy for change. Millions of Egyptians and other Arabs found alternatives to the government controlled media that were widely considered biased in their selection and framing of news and information. While sources of alternative media also often represented biased perspectives, they provided "alternative" viewpoints, different information, and additional interpretations of events that were absent in the government-controlled media (Preston, 2011).

Dissecting Social Media's Contribution to the Arab Spring

Regardless of whether the Tunisian Bouazizi narrative, the Egyptian Khaled Saeed narrative, or some other force or combination of events can be credited with triggering the Arab Spring, there has been a growing body of research on how the new information and communication technologies we collectively call New Media have become a viable alternative to traditional media. The use of these tools in social movements and contentious politics in the Arab world has become a focus of both the international media-scape, and academics worldwide. However, evidence of the effective use of New Media for planning, mobilizing, organizing, and implementing collective action is still more descriptive than empirical (Lievrouw, 2012). The challenges that scholars face in disaggregating causes and correlations between social media activism and physical political events will likely continue to challenge scholars.

Langman (2005) argues that computer-savvy activists use the Internet to initiate and organize a wide variety of civil disobedience actions, including occupying public places, sit-ins, and mass demonstrations. Numerous scholars have pointed to the new communication technologies—particularly social media like short messaging services, social-networking sites, and blogs—as being, collectively, an important new resource for the successful organization and implementation of social movements (Della Porta & Mosca, 2005; Langman, 2005; O'Lear, 1999). Social networking platforms have been used in organizing and implementing collective activities, promoting a sense of community and collective identity among dissatisfied youth groups, creating less-confined political spaces, establishing connections with other activist groups, and publicizing their grievances, causes, and demands to gain support from the regional and global communities. As an anonymous Egyptian activist tweeted on January 25, 2011, the first "Day of Anger" and the beginning of the Egyptian Revolution, young Egyptians used "Facebook to schedule the protests, Twitter to coordinate, and YouTube to tell the world" (Paul & Zlutnick, 2012, para 3).

The Arab Spring has certainly brought many claims on how important a mechanism for organization of protests and collective action in the various Arab uprisings the New Media have been. It has produced even more euphoric claims about the contributions of these media to the democratization movements in the Arab world. However, systematic research that effectively measures the causal effects of these media has been challenging for academics to produce. Limitations on methodologically sound research typically center on various intervening factors that may have contributed to the evolution of the various

Arab uprisings. Akin and his associates (Akin, Encina, Restivo, Schwartz, & Tyagi, 2012) argue that the successful use of new technologies by Tunisian and Egyptian protestors marked the birth of an emerging repertoire of social protest that was liberating, increased transparency and participation (both local and global), was almost instantaneous, circumvented both conventional and government controlled media sources, and facilitated collective action and non-hierarchical organization and decision-making.

Interviews with several young Egyptian “Digerati” (Arafa, personal interviews, April 17 and 18, 2011) seem to support the assumption that Arab youth appeared to grasp this repertoire. They understood the decentralized character of the Internet and its ability (along with mobile-phone networks) to reach large numbers of people very quickly. When Facebook and Twitter began to be monitored by security forces, traditional leaflets advised recipients to redistribute instructions by email and photocopy instead of through social media (Black, 2011). On Thursday, January 27, 2011, Egyptians were urged in anonymous leaflet circulating in Cairo to come out after Friday prayers and demand the overthrow of Hosni Mubarak’s government, along with a demand for freedom, justice, and a democratic system. The leaflet provided practical and tactical advice for mass demonstrations and confronting riot police. The document called on protesters to begin with peaceful protests, carrying roses but no banners, and marching on official buildings while persuading police and soldiers to join their ranks. Since the beginning of the uprisings, news media and academics alike have postulated on the impact New Media may have on the success of the revolutions occurring across the Middle East and North Africa. While some insisted that these technologies were fueling revolution, others insisted that social media impact was being greatly overstated. These two camps are appropriately described by Sean Aday and his research team at the U.S. Institute of Peace as the “Cyberenthusiasts and Cyberskeptics” (Aday, FarreklI, Lynch, Sides, & Freelon, 2012, p. 4). Cyberenthusiasts led by Philip Howard and his associates at the Project on Information Technology and Political Islam (PITPI) at the University of Washington argue the New Media—Internet, mobiles, and social networking platforms—“Made the difference. Using these technologies, people interested in democracy could build extensive networks, create social capital, and organize political action with a speed and on a scale never seen before. Thanks to these technologies, virtual networks materialized in the streets. Digital media became the tool that allowed social movements to reach once-unachievable goals” (Aday et al., 2012, p. 4).

At the opposite end, Cyberskeptics including Malcolm Gladwell argue instead that the [Arab] revolutions were driven primarily by traditional forms of political organization and motivated by familiar grievances. Revolutions and protests, they argued, have happened for centuries without being updated in real-time on Twitter (Howard et al., 2011). Middle East scholar Joel Beinin has calculated that prior to the revolution beginning January 25th, there had been approximately 3,000 worker-led protests in Egypt over the first decade of the century (Storck, 2011).

Empirical Evidence

Despite the deluge of reports on the association of the use of the New Media and the course of the individual Arab uprisings and the hoped for Springtime of Arab nations, little empirical research has been done so far on the topic. Furthermore, the little empirical research that has been achieved is yet to accurately measure the positive or negative effects

of the New Media on the success or failure of various Arab uprising. Recent work has proved promising, and yet many challenges remain for those wishing to study the role of new media in such revolutions. A brief overview of some noteworthy studies on the role of new media in the Arab Spring are provided below, along with an analysis of the remaining gaps. Finally, suggestions are offered for steps that may be taken in future research endeavors seeking to explore the connection between new media, digital technology, and revolution.

Notable New Media Research on the Arab Spring

Big Data Analysis

One of the earliest empirical research projects on the topic is that of Philip Howard and his associates (2011) at the Project on Information Technology and Political Islam (PITPI) of the University of Washington, Seattle. Both the scope of the PITPI study and its methodology warrant a detailed description in our review of the empirical evidence available today on the impact of New Media during the Arab Spring.

In order to examine the role social media played during the Arab Spring, the PITPI research team created a Twitter dataset using the Twitter archiving service TwapperKeeper to capture the flow of tweets from the Twitter Search API for five Arab countries: Algeria, Egypt, Tunisia, Morocco, and Yemen. They analyzed the Twitter feeds for six hashtags beginning on January 14, 2011 and ending on March 24, 2012 for a total of 3,142,621 tweets with over 75% (2,363,139) of that total from Egypt.

While previous studies focused on examining the flow of text messages within a single community, society, or country, the PITPI research project attempted to analyze a broader regional flow of text messages. The team examined tweet content, rather than simply twitter users, because the tweets represent a discourse and active dialogue about freedom that transcended national boundaries. The research team also distinguished between domestic, regional, and international contributors, which was an arduous task because the hashtag archives included several fields such as the Tweet's author's name, the GMT time it was posted, and the application used to send it, among other information, but did not include the authors' self-reported location. To gather data on the location, the research team created a list of unique users from each hashtag via a custom PHP script. Each list was then used as an input into a second PHP script which automatically saved each user's location field from the Twitter REST API. They then classified location fields into four categories: (1) within the hashtag country; (2) within the broader Arab region; (3) outside both the country and the Arab region; and (4) no provided location (Howard et al., 2011, p. 26).

The analysis of these "unique" datasets provided the research team with enough information to construct profiles for the roles of various social media platforms in several Arab uprisings. These role profiles were used to draw conclusions about certain cases under study. Using the profile of blogs in Tunisia, for example, the research team concluded that the "Tunisian blogosphere provided space for open political dialogue about regime corruption and the potential for political change" (Howard & Hussain, 2013, p. 51). The analysis of the 3 million-plus tweets yielded the conclusion that Twitter relayed stories of successful mobilization within and between countries, and, Facebook functioned as a central node in networks of political discontent in Egypt. During the protests, "YouTube

and other video archiving centers allowed citizen journalists, using mobile phone cameras and consumer electronics, to broadcast stories that the mainstream media could not or did not want to cover” (Howard & Hussain, 2013, p. 51).

Howard and his colleagues (2011) concluded that these New Media played a crucial role in the political uprising in Tunisia and Egypt by playing three specific roles. First, New Media provided a forum for the shaping of political debates about the Arab Spring. Participation in these forums was safer, faster, and removed distance barriers that would normally impede on traditional debates. Next, New Media inundated the online public sphere with revolutionary conversations, thus paving the road for major revolutionary and political events to take place. The research team depicted a spike in online revolutionary conversations that often preceded major events on the ground. Finally, New Media facilitated the dissemination of democratic ideas across borders in the Arab world and beyond (Howard et al., 2011).

Case Study Assessment

In an empirical study of a more narrow scope, Lilas Gawhry (2012) focused on the New Media’s role in the January 25th Egyptian revolution. In her attempt to answer her thesis’ research question of how social media influenced the creation and mobilization of social movements against an authoritarian regime, as observed during the revolution, Gawhry used the case study method to conduct an in-depth analysis of social networking platforms. In the study, Gawhry collected data from conventional newspapers, and New Media platforms including Twitter, Facebook, YouTube, blogs, etc., in both English and Arabic. In addition to this set of empirical data, she did a secondary analysis of the available literature on the use of non-conventional media in the Arab world and interviewed several media scholars, political scientists, and subject matter experts. Gawhry’s research showed that social media were vital tools that enabled preexisting networks to override state repressive measures.

Process Tracing

In a study by McGarty, Thomas, Lala, Smith, and Bliuc (2014), the authors posit that new media facilitates the development and sustainability of shared social identities. By tracing the dissemination of YouTube videos of Bouazizi’s self-immolation in Tunisia, and the Sidi Bouziz protest videos in Egypt, they illustrate how identity-based, networked content connected citizens at rates up to 10 times greater than similar non-networked content (McGarty, Thomas, Lala, Smith, & Bliuc, 2014, pp. 734-735). Similarly, they traced the frequency and intensity of nationalist-based identity materials within social media platforms. Flags, for instance, increased in appearance within social media platforms as protest movements gained momentum or succeeded in overthrow (McGarty, et al., 2014). While this study does not provide a direct path toward weighting the impact of social media in the uprisings, it does show that in Tunisia and Egypt at least, social media platforms functioned to unite citizens both through shared social identities as dissenting citizens, and through the digital expression of their shared national pride.

Networking Analysis

Bruns, Highfield, and Burgess (2013) took a more technical approach to their examination of social media platform functions during the Arab uprisings. They looked specifically at hashtags related to the revolution in Egypt, and the civil war occurring in Libya. Their analysis included both English and Arabic speaking users, along with users who utilized both languages. They examined original tweets, retweets, and @replies. They captured 7.48 million tweets for #Egypt and found that initial interest in the subject included both English and Arabic users from across the globe. As the revolution subsided into rebuilding, however, they hashtag became much more localized and used in Arabic-speaking communities (Bruns, Highfield, & Burgess, 2013, p. 880).

For #Libya, the authors captured 5.27 million tweets (Bruns, Highfield, & Burgess, 2013, p. 883), with a much lower (19%) average of tweets being sent in Arabic. They also noted that restrictions on Internet access by the Gadhafi regime might have accounted for this, as the percentage of Arabic tweets rose rapidly after his downfall. Perhaps most noteworthy, is their conclusion that “Discussion under the #Libya hashtag is likely to consist largely of outsiders looking in, rather than—as in #Egypt—of locals and expatriates discussing the unfolding political crisis in their country” (Bruns, Highfield, & Burgess, 2013, p. 895). This methodological approach could easily be utilized in future protest movements to measure both utilization and the comparative potential impact of social media platforms like Twitter in multiple regions or countries.

Challenges to New Media Research

These examples serve to highlight both the strengths and weaknesses of existing research on social media, digital technology, and the impacts each has had on political movements, contentious politics, protest organization, and revolution. While the Arab Spring is only one example of recent history where academics have sought to explore these issues, it is also an ideal example because it occurred at a time when connectivity reached levels where impact could be measured more effectively, and social networking platforms were being utilized to much larger degrees than seen previously. As with any new technology, however, there is a catchup game to play and early scholars have had to learn via experience, modifying and improving on methodology as they work. As a result, initial findings and projects have faced sharp criticism. Nonetheless, many mainstream media outlets have attributed the success of uprisings in various Arab Spring states to the use of these platforms.

Such unsupported media claims without empirical evidence are dangerous, yet tend to accompany any new technology, whether evidence supports such claims or not. As we moved beyond the Arab Spring and into additional movements such as the EuroMaidan protests in Ukraine in 2013 or the Hong Kong protests through the fall and winter of 2014, methodology for examining social media’s impact improved. Newer projects have assisted in connecting social media information dissemination to protest turnout in Maidan Square in Kiev (Onuch, 2014). They have mapped the use of alternative mesh networks and anonymous texting applications for protection from a prying Chinese government in Hong Kong (Lepp, 2015). Even domestic research on the hashtag #Ferguson has sharpened sentiment analysis methods on social media platforms (LeFebvre & Armstrong, 2015). Still, challenges exist for academics to overcome in New Media research. These include

the speed of digital information dissemination and technology evolution, the integration of intervening variables, accurate real-time measurement of relationships between physical and digital events, and variation in platform access, characteristics, and functionality.

Speed

The pace at which information spreads online clearly exceeds physical word of mouth. Tracing such activity in real time necessitates knowing which accounts to view, which hashtags to follow, and even which platforms are being utilized. While this information can often be found in short periods of time, many platforms, including Twitter and its streaming Application Programming Interface (API), do not have options for downloading all types of data after they have occurred. Sites like Tweekdeck, Topsy, and TwapperKeeper can facilitate this task; however, they are often cost-prohibitive. Likewise, the pace at which platform utilization evolves often exceeds scholars' ability to accurately and comprehensively utilize them for data collection. This challenge in particular, is likely to be a persistent one, and keeping current with the evolution of new technology is one of the only ways researchers will minimize the associated timing obstacles.

Intervening Variables

One of the main questions scholars wrestle with in regard to the Arab Spring is to what degree can we attribute the success of each uprising to social media utilization? Measuring the amount of impact we can ascribe to New Media in events such as the Arab Spring must also be inclusive of the additional facets that contribute to movement momentum, many of them discussed in preceding portions of this paper. Issues such as existing political structures, accessibility and transparency of current leadership, social capital within a protest or revolution movement, historical economic climate, and many other factors will also impact the process and success of any political uprising. As a result, academics must be careful not to attribute unwarranted causality to social media utilization. To counter this tendency, rigor in methodology and research that integrates multiple disciplinary perspectives will improve the quality and validity of conclusions.

Connecting the Physical and the Digital

As mentioned above, Howard et al. (2011) and others (Breuer, Landman, & Farquhar, 2014; Bruns, Highfield, & Burgess, 2013; Hussain & Howard, 2013; LeFebvre & Armstrong, 2015) have succeeded in mapping the spread of hashtags geographically and have traced the spread of articles, photos, and other content via multiple social media platforms. Connecting this information to physical protest turnout, however, necessitates an ability to gauge the actual trigger that drives protesters to participate. The question of exactly how much power social media platforms have in driving citizens to engage in physical protests requires the ability to interact with protesters. Onuch (2014) achieved this in Ukraine's EuroMaidan protests by taking to the streets and conducting surveys with protest participants including asking them how they found out about the protests, and which social media platforms, if any, contributed to their decision to participate. Aside from this direct approach, researchers who cannot be physically present will continue to struggle

with connecting social media engagement and physical protest participation. Again however, even when these connections are made, the success of a protest movement must be carefully described, and correlation with social media use cannot be automatically be assumed to also indicate causation.

Platform Variation

No two social networking platforms are alike. This makes the task of digital data collection a complex process. Many texting applications, including Kik, WhatsApp, Send, TextSecure, Telegram, Viber, and others all work privately, allowing people to pass information one-on-one, or in small groups. The content and associated metadata, however, are typically not available for public consumption or visible in any type of newsfeed, thus making analysis virtually impossible, unless content is provided by either sender or recipient.

More commonly, scholars rely on content from public platforms like YouTube, Facebook, Twitter, Instagram, Ask.fm, and others. These social media sites allow researchers to collect large quantities of data. Their variation in access, however, is also highly diverse. For example, Twitter allows anyone to access tweet content and metadata through their API. Developer registration and authentication keys are readily available and allow researchers to collect data via both the streaming and searching APIs. From this, tweet content, geographic location, likes, favorites, followers, and much more information can be collected either in real time by streaming information through users or hashtags, and also going back in time searching by user.

Platforms like Facebook, YouTube, and Instagram are less helpful and do not provide the same flexible interfacing options. Much of their content can be manually collected, however. Additionally, software like NVivo's Ncapture tool collects data (from Facebook and Twitter) and organizes it into spreadsheets for simple analysis or import into other analysis programs.

The lack of consistency, and again, the speed at which platforms rise and fall from popular use make it challenging to conduct the same analysis across multiple platforms. Along with this, many users tend to use multiple platforms, and this cross-pollination of information and content can be difficult to disaggregate. As a result, we see a large amount of research available and emerging from platforms that provide access and little from those that do not. This basic challenge of access is not new to academics. Indeed it plagues research projects across the globe and has no simple solution. Enhancement of available tools and persistence in seeking new avenues of access when appropriate is one of the only ways to temper this challenge.

Clearly, New Media are accessible for data collection and research. There are however, genuine difficulties for researchers. Over time, we will see a refinement in methodology, an evolution in theoretical perspectives, and advancement of knowledge in the field. In the meantime, we must take care to consider all the challenges to this progress, and work diligently to counter them. Contentious political climates across the globe like the ones we observed during the Arab Spring will provide continuing opportunities to build on the foundations of New Media and protest research currently available. Collaboration, scrupulousness, and continual methodological fine-tuning are our best tools for this task and its hurdles.

Conclusion

The most compelling feature of the Arab Spring was undoubtedly the dominance of the role of young Arabs in jump-starting the Arab uprisings both online and on the street. However, to view the Arab Spring—the most significant historical game changer in the Arab world since the fall of the Ottoman Empire—merely as Arab members of the Global Generation using their social media accounts to protest against economic deprivation, injustice, and corruption in their countries does not do much justice to the Arab Spring or the Global Generation. Participation in the events of the Arab Spring was obviously much broader and deeper than what was viewed on YouTube, seen on Facebook or followed on Twitter or any other New Media platform. Yes, New Media provided Arab revolutionaries with tools that could connect them with news and information they needed to participate in their country's ongoing contentious politics; collaborate with other people—including those within their community, country, and other Arab (and non-Arab) countries; and create new content, and channels of communication that helped them deliver information, mobilize, organize, and take collective action.

While the New Media technologies did not necessarily make the young Arab users more inclined towards democracy, they appeared to provide these young revolutionaries with channels for “cognitive liberation” from the state controlled media as a prerequisite to taking to the streets to protest. Before taking to the streets to liberate society from dictatorship, revolutionaries found cognitive liberation in the free flow of information online. In the New Media available to them, they found highly effective tools to plan, organize, mobilize, and take action in their countries, as well as share their successes and setbacks with Arab peers across the borders. It is no mere coincidence that the most expeditious and ultimately successful uprisings occurred in Arab countries that had had large and active online public spheres: Tunisia and Egypt.

Given the on-going importance of the relationship between New Media and democratization movements in the Arab world, there is urgent need for a new set of analytical tools and procedures for study, comparison, and explanation of the complex roles the New Media plays vis-à-vis various national and transnational forms of political participation and debate. Undoubtedly, the increased transparency that these almost instantaneous communication provide needs to be better understood and appreciated for its potential impact on social movements around the world and on a global scale.

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