

**Is Socially Distributed Content Truly
Autonomous in Nature?**

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Abstract

This paper investigates the question of autonomy within socially distributed content. Over the past twenty years we have experienced an influx of sophisticated information communication technologies around the globe. The incarnation of the internet has elicited a snowball effect of the emergence of socially driven interactive technologies one compounding on the next with capacities to interact with anyone, anywhere and anytime. Networks today readily exchange information around the globe in real time. As witnessed historically with all forms of new media there are reasons to be weary of abuse with such powerful systems. In light of the effects that these new communication technologies are having on the political affairs of regions around the globe this paper introduces an analysis of power associated with political gain within potential manipulation in socially generated and distributed user content.

1. Introduction

Social theorists and political analysts commonly refer to the concept of 'power' as a decisive force governing the realm of international politics. Nations around the world have been competing with each other for this power in the form of resources and land rights for centuries. The desire for autonomy dominates the political, social and economic landscape. Increased forms of independence magnify decision making capacities. In context of this truth it seems logical to deduce that the main prerogative of all competing nations is to gain as much of a competitive advantage as possible even if that results in the degradation of surrounding neighbors. As resources will always flow through the borders of each nation state, power will also be exchanged, as a states power is proportional to its influence on the international system. In this sense all states can never be assumed to be equal and are always in a state of flux. Historically, different forms of media have been a powerful communication device utilized by governments to influence this balance of power. From the advent of the printing press to the introduction of radio and television we have observed leaders manipulate the distribution of information for political gains. Today a more sophisticated communication approach has emerged in the form of networks with capabilities of distributing information across numerous channels (radio, TV, internet, telecommunication devices), with global reach and translated into multiple languages in real time. "The development of communication media has not only rendered power visible in new ways, it has also rendered visible on an unprecedented scale: today mediated visibility is effectively global in scope..... In a fundamental way, the use of communication media transforms the spatial and temporal organization, and new modes of exercising power, which are no longer linked to the sharing of a common locale (Thompson, p. 4-5)." The world has come a long way since Gil Scott-Heron's (Godfather of hip-hop) track "The Revolution Will Not Be Televised" debuted in 1970 (Axford, 2011). As it always has, the potential for authoritarian manipulation still exists but at a magnified level of sophistication. Within this new media network another form of mass communication has emerged that seems at first glance to empower the 'individual' in the context of distributing and accessing information. The ever so popular social network phenomenon has given people the ability to establish online identities, share information and interact digitally. Social networking is

attractive because it provides an opportunity for open dialogue lacking the usual constraints of time and space while simultaneously giving the impression that the information being accessed is clean; that is information that is unbiased coming from a real person and has not been influenced as a means of propaganda. In order for social media to work on must add user generated content (UGC) to the mix in the form of text, images, and video/audio clips. The integration of UGC within social media networks has brought forth a new era of digital information exchange where power is being manifested in new ways. In light of the recent impacts that UGC and social media have had on social and political change in global affairs it would be prudent not to question the possibility of manipulation within these systems. Is socially distributed content truly autonomous in nature?

2. The Arab Spring

The waves of demonstrations and protests that have swept throughout the Middle Eastern region since December 18, 2010 have been come to be known as the Arab Spring. Up until now there have been revolutions in Tunisia (Lynn, 2011) and Egypt (Peterson, 2011); A Libyan civil war that resulted in the fall of its government (Spencer, 2011); civil uprisings within Bahrain (McLean, 2011), Syria (Koelbl, 2011), and Yemen of which the Prime minister has resigned (Bakri, 2011); major protests occurring in Algeria (The Associated Press, 2011), Iraq (McCrummen, 2011), Jordan (Al Jazeera, 2011), Morocco (Staff Writer Afrol News, 2011), and Oman (Vaidya, 2011); and somewhat minor protests occurring within Kuwait (Middle East Online, 2011), Lebanon (Reuters, 2011), Mauritania (Ghasemilee, 2011), Saudi Arabia (BBC, 2011), Sudan (Muawia, 2011), and Western Sahara (Staff Writer Afrol News, 2011). Border issues with pro-Palestinian protestors from Syria in Israel have also been viewed as influential (CNN Wire Staff, 2011).

The protests observed seem to share a common thread of civil resistance being manifested in the form of demonstrations, strikes, marches and rallies. Across the board these countries have adapted multiple forms of social media, User-generated content (UGC) and telecommunication resources as a means to rally, raise awareness, organize and communicate in opposition to the attempts of government opposition, repression and the threat of internet censorship. An

activist from Cairo was quoted saying, “We use Facebook to schedule the protests, Twitter to coordinate, and YouTube to tell the world (Howard, 2011).” Gadhafi was even advised by his aides to announce his resignation publicly on Twitter (Howard, 2011). A most telling depiction of Arab disposition is illustrated within the dominantly recognized slogan *ash-shab yurid isqat an-nizam* ("the people want to bring down the regime") (The Economist, 2011). At this point a total of three governments have been overthrown; Tunisia (Beardsley, 2011), Egypt (Fadel, 2011) and Libya (Dolak & Kofman, 2011). Many political leaders have announced that they will step down upon completion of their terms including those in Sudan, Iraq, Jordan and Yemen.

Social change of course cannot be attributed to innovative technologies in and of themselves. The motivations for these uprisings include issues prominent within modernization theory including; dictatorships, absolute monarchies, human rights violations, government corruption, economic decline, high unemployment rates, poverty, access to education, and badly managed infrastructures. “For years discontent had been stirring, but somehow the drivers of protest never proved sufficient until mobile phones and the Web began pervading the region (Howard & Hussain, p.41, 2011).” Although it is too early to tell whether or not the outcomes of these political actions will persevere in forms of democratization we can conclude that the combination of UCG and social networking has played a pivotal role in providing capabilities for political change. The Project on Information Technology and Political Islam completed an up to date analysis on the role of social media in the Arab Spring emphasizing three key findings. “First, social media played a central role in shaping political debates in the Arab Spring. Second, a spike in online revolutionary conversations often preceded major events on the ground. Third, social media helped spread democratic ideas across international borders (Duffy et al., 2011, p. 2-3).” The number of tweets, blogs, Facebook conversations, and videos involved in the Arab Spring movements are in the millions and by far exceed the level of saturation the U.S. is experiencing within its Occupy Wallstreet movement. It should be noted that this project was partially funded by the George W. Bush Institute (University of Washington, 2011).

A careful consideration must given to the level of saturation of information communication technologies (ICT) within countries involved in the Arab Spring. Common catchphrases like

‘Twitter or Facebook revolution’ used by many today tend to attribute political change specifically to social networks. Although it is the culmination of UGC that has been a catalytic tool for revolutionary influence. In 2010 Internet penetration in Tunisia and Egypt was only at 36.8% and 26.74% of online users respectively. Only 5% of Egyptians used Facebook, and 16% of Tunisians. Facebook penetration over 20% was only observed in Bahrain at 29% and Lebanon at 23%. Interestingly out of these countries only Bahrain experienced magnified levels of protests. Based off of the statistics provided by the International Telecommunication Union on the chart below it can be inferred that social networks have played a partial role. In general UGC content distributed across multiple channels ranging from social networks, blogs, forums, other socially charged websites and combined telecommunications capacities should be recognized as the dominant source of technological means utilized for political participation within the Arab Spring.

Information Communication Technology (ICT) Access in Arab Spring

Country	Subscriptions			Estimated	Facebook		Twitter	
	(per/100 inhabitants)			Internet	Users	Users/100	Active	Users/100
	Mobile Cellular	Fixed Internet	Fixed Broadband	Users	inhabitants	Users	inhabitants	
Algeria	92.42	...	2.54	12.5	1,138,240	3.00	13,235	Less than 1
Bahrain	124.18	5.36	5.36	55.00	232,960	29.00	61,896	4.91
Egypt	87.11	2.61	1.79	26.74	4,121,460	5.00	131,204	Less than 1
Iraq	75.78	2.50	254,840	Less than 1	21,625	Less than 1
Jordan	106.99	4.01	3.16	38.00	954,580	15.00	55,859	Less than 1
Kuwait	160.78	...	1.68	38.25	525,000	17.00	113,428	4.14
Lebanon	68.0	...	4.73	31.00	969,240	23.00	79,163	1.87
Libya	171.52	...	1.15	14.00	191,120	3.00	63,919	1.01
Mauritania	79.34	...	0.19	3.0	33,700	1.00	1,407	Less than 1
Morocco	100.10	1.57	1.56	49.00	2,158,680	7.00	17,384	Less than 1
Oman	165.54	2.66	1.63	62.00	156,200	5.00	6,679	Less than 1
Saudi Arabia	187.86	6.91	5.45	41.00	2,489,320	9.00	115,084	Less than 1
Sudan	40.54	...	0.38	...	No Data*	No Data*	9,459	Less than 1

Syria	57.81	4.83	0.33	20.70	No Data*	No Data*	40,020	Less than 1
Tunisia	106.04	5.18	4.60	36.80	1,708,700	16.00	35,746	Less than 1
Yemen	46.09	2.42	0.35	12.35	107,520	Less than 1	29,422	Less than 1
Western Sahara	Na	Na	Na	Na	Na	Na	Na	Na

* Denotes lack of data due to the US comprehensive economic embargo on Sudan and Syria

Source: International Telecommunication Union 2010, Placebook (Masaryk University, Czech Republic) 2010, Arab Social Media Report: Dubai School of Government 2011

2.2 U.S. Support

Protestors within the Arab Spring have benefited from the support of Hillary Clinton. She publicly announced that the U.S. intended to invest \$25 million on an annual basis in support of online non-conformists. She has been quoted saying; “Those who clamp down on Internet freedom may be able to hold back the full impact of their people’s yearnings for a while, but not forever.... We believe that governments who have erected barriers to Internet freedom – whether they’re technical filters or censorship regimes or attacks on those who exercise their rights to expression and assemble online – will eventually find themselves boxed in (Nyugen, 2011).” Clinton refers to free access of the web and its social capacities a “fundamental human right (Nyugen, 2011).”

One of Google’s own even played a role in the events leading up to the revolution in Egypt. “Wael Ghonim, a manager in Google Inc.'s Middle East and North Africa marketing divisions, has emerged as one of the prime catalysts in the recent uprising against Egyptian President Hosni Mubarak (CBC News, 2011).” He created the Facebook page ‘We Are All Khaled Said,’ commemorating an Egyptian blogger who was brutally beaten to death by two police officers. He later went missing and it was found that he had been captured by Egyptian authorities. After 12 days he was released as a result of the assistance provided to him by his employer Google (Shah, 2011).

Many Foreign technology companies played pivotal roles in providing tools and support to achieve goals involving political participation. Facebook provided a means to organize and connect with other like minded individuals. Multiple text messaging systems were put into

place of which enabled people internally and externally to exchange ideas, report on current events and establish strategic plans for future action. “The *Atlantic Monthly* translated and hosted an “Activist Action Plan,” *boingboing.net* provided tips for protecting anonymity online and Telecomix circulated the ways of using landlines to circumvent state blockages of broadband networks (Howard & Hussain, p.40, 2011).”

2.3 Phases

In *The Role of Digital Media* Howard outlines the phases in which the Arab Spring unfolded. The first phase is the *preparation* phase of which people come together through the utilization of digital media, establish relationships and identifying political objectives. During the second phase the *ignition* starts but state actors do not react at this point although the public is dismayed. In the third *street protests* begin occurring as a result of online interaction. After that the next step was for an *international buy-in* of which activists were able to gain international exposure. The *climax* then came to fruition with three possible outcomes; one that glorified the activists, another in which the activist failed, or the third being a violently charged stalemate with seeds of civil war. In the case of Tunisia and Egypt a last phase, *follow-on information warfare* ensued where those left standing competed for power.

3. Occupy Wallstreet

On the Western front the Occupy Wallstreet movement has been gaining momentum. Social networks have been a critical element for connecting supporters and distributing information. More than 170,000 active Facebook users belong to Occupy groups, on more than 400 pages, and they have collected more than 1.4 million likes for support. Data collected reflects activity until October 22, 2011. The Wallstreet Occupation had acquired more than 390,000 likes at that point but overall 770,000 had been collected for the total of 324 local sites. The total count of comments or posts up by October 22 amounted to 1,170, 626. Although Facebook is viewed as a productive tool for the Occupy movement up to this point Caren and Gaby point out that it will likely not be as relevant as the movement proceeds. Supporters are creating a number of private and locally based websites for communication as there seems to be a collective ‘fear’ of

corporate tampering, ie. Facebook. They also point out that “the movement’s emphasis on participatory democracy, embodied in local General Assemblies, privileges face---to---face contact (Caren, Gaby, 2011, p. 14).” As October’s statistics were the high point for the Occupy Wallstreet movement according to Google trends it looks as if it’s losing steam already.



* **Source:** Occupy Wallstreet: Google Trends. Scale is based on the average worldwide traffic of Occupy Wallstreet in the last 12 months.

3.2 US Censorship and Corruption

The United States has experienced its own share of censorship and misinformation within this movement. “Yahoo admitted on Monday that it unintentionally blocked some emails pertaining to the “Occupy Wall Street” protest that began this weekend. The company issued an apology on Twitter, saying that the blockage was “not intentional,” and blamed its spam filters for stopping delivery of emails that contained the anti-Wall Street campaign website OccupyWallStreet.org (Couts, 2011).” According to the Society of Professional Journalists American free press rights are also being violated. “At least six journalists have been arrested or detained while covering the protests in New York City and Chapel Hill, N.C. Reporters have also been arrested in Atlanta, Nashville, Milwaukee and Richmond, Va..... In these recent instances, the journalists were either wearing press credentials or explained to police that they were reporters covering the protests. They were clearly exercising the constitutional right of a free press (Ensslin, Henkel, 2011).” John Ensslin, the President of the association said, “We know

that as protests escalate it may be difficult for police to distinguish bystanders from participants, but it is clear now that many journalists have been erroneously arrested without cause....These errors must be rectified immediately (Ensslin, Henkel, 2011).”

Chris Hayes, an MSNBC political media icon came across a memo, created by a well known lobbying firm in Washington directed to executives within the financial industry regarding an attack on the Occupy Wallstreet Movement. This memo “proposes that the ABA pay CLGC \$850,000 to conduct “opposition research” on Occupy Wall Street in order to construct “negative narratives” about the protests and allied politicians. The memo also asserts that Democratic victories in 2012 would be detrimental for Wall Street and targets specific races in which it says Wall Street would benefit by electing Republicans instead (Larsen, Olshansky, 2011).” It seems that the frequency in which corruption, censorship and misinformation are surfacing within the U.S. is on the rise. Will citizens of the United States be empowered by the use of UGC and social media to initiate change within the political system as it has in the Middle East? It seems apparent that the right to free speech and free press are becoming increasingly threatened and should be carefully observed moving forward in an attempt to thwart potential future information access and dispersion controls.

4. Organization of the Petroleum Exporting Countries (OPEC)

The Organization of the Petroleum Exporting Countries (OPEC) was formed in 1960 as a means to safeguard mainly financial interests of the organization collectively and individually. Almost half of the OPEC member countries are involved in the Arab Spring including; Algeria, Iraq, Kuwait, Libya and Saudi Arabia. It should also be noted that the top 5 oil producing countries in OPEC are also the OPEC member countries participating within the Arab Spring. These five countries account for 87% of the oil being produced by the countries involved within the Arab Spring.

Arab Spring Country Comparison in Oil Production (total oil produced in barrels per day (bbl/day))			OPEC Countries involved in Arab Spring	Countries involved in 1973 oil crises, outside of OPEC
Rank	Country	BBL/Day (Collected in 2010)		
1	Saudi Arabia	10,520,000	Saudi Arabia	
11	Kuwait	2,450,000	Kuwait	
12	Iraq	2,408,000	Iraq	
16	Algeria	2,078,000	Algeria	
18	Libya	1,789,000	Libya	
25	Oman	867,900		
29	Egypt	662,600		Egypt
31	Sudan	514,300		
34	Syria	401,000		Syria
38	Yemen	258,800		
53	Tunisia	83,720		Tunisia
64	Bahrain	46,430		
81	Mauritania	11,640		
98	Morocco	3,938		
121	Jordan	88		
144	Western Sahara	0		
187	Lebanon	0		

* Source: CIA, 2011

4.2 Power and Politics

The levels of power and autonomy maintained by OPEC member countries are directly linked to their claim on the majority of the world's oil supply. It would then follow that a political weakening of OPEC nations could shift power within the international political system leading to a redistribution of power into other nations. The orange line below represents the US in a cross comparison of energy production with Arab Spring countries with reference to oil production. This modeling system has the ability to predict global trends in a number of categories including power associations within the international political system. The information utilized within this system includes; 'demographic, economic, energy, agricultural,

socio-political, and environmental subsystems for 183 countries interacting in the global system (International Futures, 2011).’ Note Saudi Arabia, Iraq, Kuwait, Libya and Algeria as top performers.

U.S. & Arab Spring in Oil Production Futures



* The International Futures (IFs) modeling system, version. IFs was initially developed by Barry B. Hughes and is based at the Frederick S. Pardee Center for International Futures, Josef Korbel School of International Studies, University of Denver, www.ifs.du.edu.

Throughout history many examples of state to state political intervention can be seen. “In the slightly less than a hundred years from 1898 to 1994, the U.S. government has intervened successfully to change governments in Latin America a total of at least 41 times. That amounts to once every 28 months for an entire century (pg. 6 Coatsworth, 2005).” It is often observed that once a state has been unable to reach successful negotiations with a target nation, the secondary recourse is to instigate an overthrow of the current regime and modify it to fit their interests. A pattern as old as this is likely not to crumble any time soon. New technologies have and will always be adopted by governments for utility in military and intelligence operations. It would be logical then to assume that the most sophisticated information networks available on the planet would be utilized for such purposes, as these networks are the only means to transcending state borders, and as such would provide the most convenient means of infiltration.

5. Reliability of Social Content

Socially distributed content would be a potential for such abuse. Arab Spring demonstrators have produced an extensive amount of UGC in the form of social networking, blogs, audio and video clips, and forums in order to distribute messages and organize protests. As this type of information is user generated and simultaneously created and distributed in real time it makes for an easy target for information extraction and injection. It is obvious that modern day ICT's provide great potential for change, but what is not obvious is whether or not messages distributed throughout ICT's within the Arab Spring movement have been authentic.

5.2 Misinformation & Propaganda

Authenticity of UGC within social networks is not a primary research focus within the domain of socially distributed and politically charged content online. Within the scope of research for this paper about 100 news articles, books and research papers were scanned and only about 5% of them hinted at propaganda injection within the online social sphere. In Comninos' analysis of the Sudanese government he found that, "There were reports that many of the people participating on Facebook pages were actually government agents or supporters of the regime, spreading propaganda on these groups, as well as spying on other Facebook users (Comninos, p.10, 2011.)"

5.3 Tricky Tactics in Social Media

Media Badger a leading media research firm that provides intelligence to government, IGO's and the private sector outlines the darker side of online social media. The tactics they describe below are referenced as being utilized in online political campaigning.

Sockpuppeting: This is the most common tactic observed where an individual creates one or more fake online identities in order to distribute negative information against an opposing political party without being associated with their claims. They note that this tactic is consistently utilized in both the U.S. and Canada.

Cyber Astroturfing: This occurs when a political party rallies people together to establish awareness and as a result influences them to redistribute this information through their own personal channels online.

Cyber Provocateur: This tactic is bit more sophisticated in that the target must be technically savvy enough to hack into opposition websites. Media Badger claims that these forms of deception have been implemented in Iran, Burma and the Ukraine.

Cyber Front Group: These groups may or may not know that they are existing as a Cyber Front Groups depending on how they were established and where they are receiving their funding. But generally these organizations take the form of a non-profit organization and aggressively push particular issues in the interest of the secondary funding group behind them.

Trolls: This group represents people that are just out for fun and games, their general intent being to cause trouble.

Cyber Quasi-State Organ (CQSO): This type of manipulation generally occurs within weakened democratic states. It occurs when a government hires a team to inject pro-government propaganda into the digital sphere. According to Media Badger Hugo Chavez has a team doing this, in 2011 Sudan hired an army of bloggers to complete this task and Iran has been using this practice since 2010.

These are just a few forms of online social manipulation potentially occurring within the global political arena. Although in comparison to 'Metal Gear' a software supposedly contracted by the U.S. Airforce takes sockpuppeting to another level. Anonymous claims that it "involves an army of fake cyber personalities immersed in social networking websites for the purposes of manipulating the mass population via influence, crawling information from major online communities (such as Facebook), and identifying anonymous personalities via correlating stored information from multiple sources to establish connections between separate online accounts, using this information to arrest dissidents and activists who work anonymously.... given recent events across the world, the idea behind Metal Gear seems to be 'weaponizing' sockpuppets, in order to influence the face of revolutions that are based within social networking sites (Anonymous, ." Detailed below are a series of statements extracted from the

description section of the Patent for this new system. As these descriptions were written in a very strange way identifiers were removed from descriptions for increased comprehension.

Patent application title: Persona management system for communications

As explained above, the persona manager allows a user to adapt communication message styles and tones to *achieve a desired communication result*. Further, by selecting a specific or random persona, a user is enabled to *disguise his or her identity*. For example, when a user in a conversation wishes to remain anonymous such as a situation when a frank opinion on a sensitive subject is solicited amongst several participants, the persona randomizer generates a neutral mood by randomly selecting a persona style to protect the anonymity of the user to facilitate a user in *hiding their personal style to protect the anonymity of the user* (Patent Docs, 2009). [0060]

..... input communication may include text from an e-mail, and instant message, a text message, and so forth.....identifies.....input communication.....then determines...whether a persona style is selected ...selects....a persona for the *input communication* (Patent Docs, 2009). [0053]

...communication analyzer analyzes a user's written communication, or message. As explained above, the message may be part of an email, an instant messaging (IM) chat, a text message such as through the short messaging service (SMS), a metaverse communication, and so forth....the communication analyzer identifies an element of original content of the user's message....communication analyzer performs linguistic analysis on the original content of the user's message to identify certain elements of the original content of the user's message....elements may include common phrases, acronyms, clauses, tones, styles, word choices, and so forth (Patent Docs, 2009). [0042]

5.4 Corporate Influence

Another major concern regarding the distribution of data within this movement refers to the 'man behind the curtain' prospect. In terms of something like Youtube, the probability that a professionally crafted video will go viral is very unlikely. Those familiar with online marketing tend to question the legitimacy of placement and position of these pieces of media and data on social networks. It is generally accepted that it is user votes that determine these placements, but as Youtube is now owned by Google, and Google is working very closely with the US government it seems unlikely that there hasn't been some manipulation within this arena (Gross, 2011).

5.5 The Facebook Story

Facebook, the biggest social network in the world has been very carefully marketed as a success story starting out in the dorm room of a young unassuming computer genius who got lucky and almost overnight transformed into one of the world's most successful business men of our time. This type of capitalist fairytale is fed to the youngsters of our generation, thus elevating false hopes that this will one day be them. But is this the true story as has been documented within the biographical movie *The Social Network*? Up to date Facebook has over 800 million active users, over half of them log in everyday, and more than 75% of Facebook's users are located outside of the United States (Facebook, 2011).

6. Dangers of Participation and Privacy

Julie Assange, the Editor-in-Chief of WikiLeaks remarks that "while the Internet has in some ways an ability to let us know to an unprecedented level what government is doing ... it is also the greatest spying machine the world has ever seen (The Hindu, 2011)."

6.2 Content Mining

Most social networks require that users provide honest self identifying information in order to create an account. As a result of this there exist large databases of populations of people containing personalized information of which can sometimes be accessed publicly or otherwise hacked into without much difficulty. Living in a country of which governments are utilizing digital counter strategies in mining user generated content can have devastating effects for those involved. Common data types accessed usually include full names, employers, social contacts, personal photographs, general areas of residence and personality indicators. Facebook in particular allows advertisers to utilize their API in order to access databases comprised of UGC. Mining these databases for user information does not require expert programmers but can be done by those with limited hacking experience and technical education. This type of content aggregation can be taken even one step further through the creation of 'script-kiddies' that act as a virus and jump from each portion of UGC to another. As people interact online this information mining machine travels into all forms of UGC within a

network not constrained by individual websites, but having the ability to penetrate multiple social networks, blogs, forums and even email (Comminos, 2011).

In Tunisia the government actually set up a large scale operation that modified Facebook login pages in order to steal Tunisian citizen's usernames and passwords. They did this by adding 10 extra lines of code to the login page itself. There is speculation that it may have been a virus in the form of malware, "but widespread accounts from Tunisians strongly suggest these lines are being dropped into the Facebook page by the state-run Internet service provider, the Tunisia Internet Agency (O'Brien, 2011)."

6.3 Location Mechanisms

Geo-location capabilities elicit yet another problem for those who may be targets of a corrupt regime. Both Facebook and Twitter have integrated geo-location capabilities into their systems that work seamlessly with smart phones. The majority of smart phone applications today incorporate location capabilities; and those who are not too savvy may even accept geolocating invitations from applications without even being aware of it.

6.4 Online Censorship

Facebook outlines within their terms of service that any pages created under false names will be removed. The Facebook page 'We Are All Kaeled Said' established by Wael Ghonim was shut down for this very reason. In the UK a group of students known as the UCL Occupation claimed that Facebook deleted over 50 activist profiles within 12 hours. They were protesting over increases in tuition rates and educational budget cuts. Guy Aitchison, a UCL student/blogger reacted by saying:

Profiles are being deleted without warning or explanation... It may well be that these groups are technically in violation of Facebook's terms of agreement, which state that participants in social media must not make use of a 'fake name'. But the timing –on the royal wedding and May Day weekend– is deeply suspicious. We don't know for certain, but this purge of online organising groups could be linked to the wider crackdown on protest by authorities in Britain. Either way, it is a scandalous abuse of power by Facebook to arbitrarily destroy online communities built up

over many months and years. These groups provide a vital means for activist groups to communicate with their supporters (Comninos, 2011).

Facebook's official response was:

Facebook profiles are intended to represent individual people only. It is a violation of Facebook's Statement of Rights and Responsibilities to use a profile to represent a brand, business, group, or organization. As such, your account was disabled for violating these guidelines.

If you would like to continue representing your organization on Facebook, we can convert your profile to a Page. During this process, all the friends of your profile will be converted to followers of your Page (i.e., people who like it). In addition, the account associated with your profile will be converted to a business account, from which you can administrate your Page and your ad campaigns (Comninos, 2011).

It is also interesting to note that both of the pages referenced here have been removed and can no longer be accessed online, the only reference remaining is on Topsy.com which is an aggregator of content from websites other than itself of which it stores this information on its own databases (Topsy.com, 2011).

In general there has been a lack of incidents regarding the take down of content when associated with the Arab Spring. Comninos states that, "Many Palestinians as well as sympathisers around the world wondered why all other Arab countries were allowed to have pages dedicated to a "day of rage "against their governments, but one was not allowed for a protest against Israeli occupation." It seems that all organizations, including those online have a tendency to exhibit politically charged actions. Even when an organization intends to be democratic and transparent in nature, the connections that bind them may at some point manifest themselves in a politically charged and un-neutral fashion.

7. Outside Influences and Connections

There are a number of interesting connections surrounding the investment process of this small

startup company that deserve attention. Matt Greenop of the NZ Herald claims that Facebook has been funded by the CIA (Greenop, 2007). The CIA works with IN-Q-TEL, a contract company that takes care of their technology related investments (In-Q-TEL, 2011). Facebook's investments came from two sources the first was from Pay Pal CEO Peter Thiel, who has connections to the radical conservative group Vanguard PAC. The second round of investment came from a venture capital firm Acell Partners. The manager James Breyer is said to have connections with the CEO of IN-Q-TEL and Dr. Anita Jones with connections to IN-Q-TEL, as well as the US Department of Defense (ATCS Partners Delivering Results, 2011)(Greenop, 2011). IN-Q-TEL are known experts in data mining.

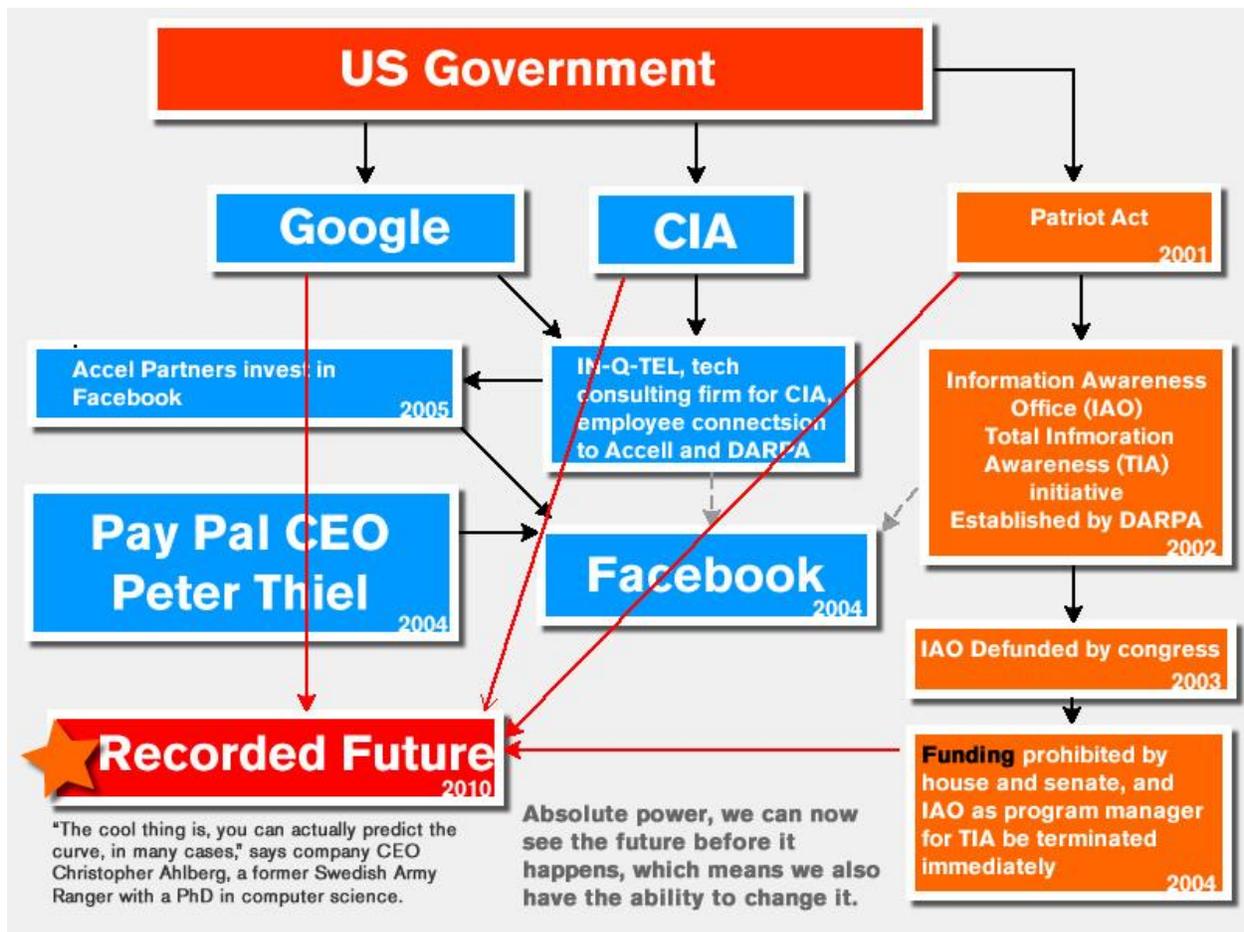
7.2 Freedoms

After the patriot act passed the US government gained the ability to legally utilize new forms of personalized information; as it did away with most of the privacy rights American citizens once had. If we analyze the timeline we see that the Patriot act was signed October 26, 2001 then in 2002 the Information Awareness Office was established by Defense Advanced Research Projects Agency (DARPA) as a means "to bring together several DARPA projects focused on applying surveillance and information technology to track and monitor terrorists and other asymmetric threats to national security, by achieving Total Information Awareness (TIA) (Wikipedia, Information Awareness Office)." In 2003 the IAO was defunded by congress, and in 2004 the house and senate prohibited funding for the office and requested immediate termination of the TIA project.

7.3 Surveillance Programs

In 2010 a new company emerged with investments from Google and the CIA. *Recorded Future* who's CEO Christopher Ahlberg is a former Swedish Army Ranger with a PhD in computer science. Recorded Future "scours tens of thousands of websites, blogs and Twitter accounts to find the relationships between people, organizations, actions and incidents — both present and still-to-come....its temporal analytics engine "goes beyond search" by "looking at the 'invisible links' between documents that talk about the same, or related, entities and events. The idea is to figure out for each incident who was involved, where it happened and when it might go

down. Recorded Future then plots that chatter, showing online “momentum” for any given event.” Ahlberg was quoted saying “The cool thing is, you can actually predict the curve, in many cases (Shachtman, 2011).” There has not been any talk about the utilization of social networks specifically but they do claim that they are “scouring tens of thousands of websites...” which would follow that social networks are websites and can be included within this analysis.



Parallels within the Patriot Act, the Total Information Awareness initiative and Recorded Future are very interesting. In order for the Information Awareness Initiative to work it would require the creation of databases of personal information of all US citizens including ‘personal e-mails, social networks, credit card records, phone calls, medical records, and numerous other sources, without any requirement for a search warrant’. The patriot act makes government access to this information legal. “The act, a response to the terrorist attacks of September 11th,

dramatically reduced restrictions on law enforcement agencies' ability to search telephone, e-mail communications, medical, financial, and other records; eased restrictions on foreign intelligence gathering within the United States; expanded the Secretary of the Treasury's authority to regulate financial transactions, particularly those involving foreign individuals and entities; and broadened the discretion of law enforcement and immigration authorities in detaining and deporting immigrants suspected of terrorism-related acts. The act also expanded the definition of terrorism to include domestic terrorism, thus enlarging the number of activities to which the USA PATRIOT Act's expanded law enforcement powers can be applied (Wikipedia, USA Patriot Act)." Although the United States government ruled against funding for this operation, it does not follow that the operation cannot be instituted within a private company. "Several IAO projects continued to be funded, and merely run under different names (Wikipedia, Information Awareness Office)."

7.4 Anonymous & Telecomix

Two major leaderless hacking organizations Anonymous and Telecomix were also observed in providing support to protestors within the Arab Spring. They assisted in crippling the government of Tunisia by "carrying out denial-of-service attacks and by building new software to help activists get around state firewalls (Howard & Hussain, p.37, 2011)." Anonymous even targeted the government of Algeria in their attacks (Howard & Hussain, p.37, 2011). In terms of support for all protestors with the Arab Spring Telecomix "circulated the ways of using landlines to circumvent state blockages or broadband networks (Howard & Hussain, p.40, 2011)." As it is generally viewed that the actions taken by these two global 'hacktivist' organizations have been moral there still lingers a question as to who is behind them. If the balance of power between nations hinges on the ability to influence online social dynamics a global hacktivist group with a positively morally charged character would be a great scape goat for carrying out these types of activities and could also very easily be utilized as a technological distraction mechanism to divert eyes away from much more covert and sophisticated technological operations.

Conclusion

As all of the social networks utilized in the Arab Spring are U.S. owned and have had major impacts on the international political system that ultimately benefit the West, it would follow that there is a great possibility these tools were utilized for eliciting political and social change in foreign affairs in the name of national security. Information is the new paradigm of power in the world today. As new companies like Recorded Future begin to emerge we are observing that with real time data analysis future events can be observed before they actually occur. This is very dangerous, as with this system also comes the possibility of real time data injection which could result in shifting probable futures for whomever is in control. A world where futures can be changed is a very different experience for mankind. This may be a transition point of which initially these things will be utilized for political and economic gain, but it is also an opportunity for leaders to make more informed decisions about their actions with the hope that actions taken are those that create a benefit for the majority of society and not only those on top. At this point it seems that social networks and online activities are being highly regulated for the control and movement of power within the international political arena, and that this is not going to stop any time soon.

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