

***Igression: an examination of the role of digital technologies in the 2011 Arab Awakening***

by

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A thesis submitted to the Graduate Faculty of  
Auburn University  
in partial fulfillment of the  
requirements for the Degree of  
Master of Arts in Sociology

Auburn, Alabama  
August 4, 2012

Keywords: social media, collective identity, political instability, ICTs

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## Abstract

Information and communication technologies (ICTs) are rapidly proliferating to cultures all over the world. The invention of Internet and its exponential diffusion created a new niche for studying social change within society. Sociological literature is useful in explaining past large scale social movements, however, the Internet and other current digital technologies may play important roles in social change, but little empirical information exists since Internet is still a relatively new phenomenon. Recently, there is growing controversy among world leaders pertaining to regulation of information via the Internet. Questions arise regarding who should “police” online content, or even if it should be policed, and if a country might use propaganda to ignite a protest movement in another country, a concept I call *iggression*. This study examines the role of ICTs in the 2011 Arab Awakening movement in conjunction with population traits and social environment characteristics as influencers on political instability. The role of Internet and social media in social movements has significant future implications in terms of how organizations disseminate information to participants, recruit participants, and how they organize physical rallies or protest events. Additionally, the findings of this study indicate non-democratic regimes are more likely to experience increased ICT penetration rates as people seek ways to obtain and transmit information through new technologies.

## Acknowledgments

I would like to thank Dr. Raj Mohan for the hours of discussion and the autonomy he allowed which ultimately brought this thesis to fruition, you have been an exceptional major professor. I would also like to thank Dr. Joseph Molnar for his statistical analysis guidance and Dr. Greg Weaver for helping to clarify the methodology when I was struggling. I owe a debt of gratitude to my fellow graduate student colleagues Kandace Henry, Joseph Calvert, and Stacie Moss for their support, humor, and hours of discussion which made all the difference throughout the graduate school process. I would like to thank my parents, James Fritz for the constructive criticism when I needed it, and Bonnie Fritz for the late night discussions. Lastly, I have to thank my wonderful, supportive husband, Timothy Pitts, for standing by my side throughout this entire process, and my children, Debra and Timothy, for reminding me to always have fun and take a break when work seems like it is overwhelming.

## Table of Contents

Abstract.....	ii
Acknowledgments .....	iii
List of Tables .....	vi
List of Illustrations .....	vii
List of Abbreviations .....	viii
Chapter One – The Problem .....	1
Chapter Two – Conceptual Framework .....	11
2.1 Previous explanations for political instability.....	12
2.2 Regime type and political instability .....	17
2.3 Role of media censorship.....	21
2.4 The role of Internet in political protests.....	24
2.5 New social movements .....	29
2.6 Castells’ identity-building and <i>space of flows</i> .....	35
2.7 Smelser and collective behavior .....	36
2.8 Collective identity transition theory.....	38
2.9 Conclusion .....	43
Chapter Three – Method .....	45
3.1 Sample.....	45
3.2 Collection measures: dependent variable.....	46

3.3 Collection measures: independent variables.....	46
3.4 Analysis.....	49
Chapter Four – Data Analysis.....	51
Chapter Five – Discussion and Conclusion .....	61
5.1 Results summary.....	61
5.2 Discussion.....	65
5.3 Study Limitations.....	70
5.4 Future Implications .....	71
5.5 Conclusion .....	73
References .....	75

## List of Tables

Table 1 Changes in study variable means by year .....	52
Table 2 2000 independent variable/2005 dependent variable means by regime type .....	54
Table 3 2005 independent variable/2010 dependent variable means by regime type .....	55
Table 4 Kendall's tau <sub>b</sub> correlation matrix 2000/2005 variables.....	56
Table 5 Kendall's tau <sub>b</sub> correlation matrix 2005/2010 variables.....	57
Table 6 Mean political stability by level of press freedom.....	58
Table 7 Level of press freedom by mean ICT usage .....	59
Table 8 Logistic ordinal regression of youth cohort, GDP, education, and ICT variables on political stability.....	60

## List of Figures

Figure 1 Polity IV State Fragility Index .....	8
Figure 2 Mobile phone subscription penetration rates in MENA region from 2000-2010 .....	9
Figure 3 Collective Identity Transition Theory .....	41
Figure 4 Mobile phone subscription penetration rates by regime type 2000-2010 .....	62
Figure 5 Internet user penetration rates by regime type 2000-2010 .....	62

## List of Abbreviations

ICT	Information and communication technologies
NSM	New social movements
IGF	Internet Governance Forum
ITU	International Telecommunications Union
OECD	Organisation for Economic Co-operation and Development
NPR	National Public Radio
UN	United Nations
WHO	World Health Organization
GDR	German Democratic Republic
SMO	Social Movement Organizations
NATO	North Atlantic Treaty Organization
MENA	Middle East and North Africa
UGC	User Generated Content
WGI	World Governance Indicators
UCM	Unobserved component models

## Chapter 1

### The Problem

An open Internet has allowed information to reach areas of the globe which were once completely isolated from the external influence of other cultures. This openness has sparked an intense controversy among world leaders regarding the design and implementation of an Internet governance policy. Some leaders fear the Internet has provided an opportunity for powerful and influential nations to use “ideological aggression” to destabilize another nation’s government (Gjelten, 2010). “Ideological aggression” is a Soviet term used to describe the act of introducing political propaganda with the intent of creating civil unrest. “It has become common place to argue that the technological potential of the Internet can serve democratic as well as non-democratic purposes: the former when the Internet is used to decentralize information, thus undermining the information monopoly of authoritarian regimes, or when it enables an all-to-all public debate on pertinent public issues. Conversely, the Internet can serve non-democratic purposes when networks of neo-Nazis or Islamic terrorists construct websites and use email to promote their beliefs or coordinate subversive activities” (Hoff, Hansen, & Bjerke, 2006, p. 12-13).

This study examines the role of digital technologies which are capable of tapping into and transmitting communications from one individual to another or others through cyberspace so it is important to clarify the definitions of Internet, cyberspace, and information and communication technologies. Merriam Webster (2011) defines the Internet as “an electronic communications network that connects computer networks and organizational computer facilities

around the world;” cyberspace is defined as “the online world of computer networks and especially the Internet” (Merriam-Webster, 2012). Hence, the formal name of the network which connects the globe is called Internet, while the matrix through which communications pass is cyberspace. Silverstone, Hirsch, & Morley (1994) define information and communication technologies (ICTs) as “televisions, telephones, videos, and computers...as media; they provide, actively, interactively or passively, links between household members, and individuals household members of households, with the world beyond their front door” (p. 15). For this study ICTs will be more concisely defined as the digital devices, to include cell phones, tablets, laptops, computers, etc., which allow users to interactively connect to the Internet and communicate with others through cyberspace.

Governments may have a difficult time controlling the flow of information their citizens send and receive because it is now possible to circumvent programs built to censor the Internet. The inability to control flow of information is both good and bad depending on one’s perspective. For oppressive governments who have relied on the ability to control information flow both into and out of their country new ICTs create an opportunity by which a population can obtain information their government may want to keep from the population. For populations under the control of governments who have had the advantage of state run media up to the implementation of Internet access through new technologies these devices create a window for them to view the outside world as well as see their own government from a contradictory perspective. For oppressive regimes which rely on information control to maintain social control and power ICTs threaten the status quo. Additionally, hackers and other Internet activists fight the implementation of legislation regarding the control of online content. Can the Internet really influence individual thinking to the point they would engage in social action in an effort to

overthrow currently existent social institutions? What common factors are present in political protests both before and after the invention of the Internet? This thesis examines the possibility and potentiality of influencing thought via digital devices because of the implications in terms of foreign and domestic policy, police and government response to political protests, and strategic planning for social movement leaders.

In the past it was rather difficult for one society to affect collective behavior through political propaganda in another due to the ability of governments to control the flow of information via media sources. The nature of the Internet challenges the traditional notion of censorship and has globalized the world in such a way that it is extremely difficult for a government to exercise complete control over information sources. Thus, a new form of ideological aggression may occur through ICTs, including social media, cell phones, email, and other Internet communications, to psychologically dominate or instigate a political resistance movement. Most of the devices we use today for communication and entertainment involve digital technologies which are constantly connected to the global network which is the Internet (Choney, 2010). *Iggression* is used to describe this new form of ideological aggression because of the nature and medium (Internet) used to broadcast ideological propaganda.

We are currently living in a digitally globalized world in which we communicate nearly instantaneously with others hundreds or thousands of miles away. The new digital age has created a paradigm shift as scholars, bloggers, news media, and others struggle to explain and define new trends in society. There is speculation on the matter of *iggression* coming from almost every news source including television broadcasts, radio talk shows, Internet blogs, etc. The digital age we are currently in is not likely to end, in fact it is more likely to expand, and it

would therefore be prudent to fully examine this speculation that Internet and social media is capable of facilitating *iggression*.

As Castells (2000) points out, the actual use of multimedia in its initial stage shapes the use, perceptions, and ultimately social consequences of that multimedia (p. 398). There are two primary reasons for conducting this study since there are at least two different perspectives as to what led to the initial protests in Tunisia in December of 2010: first, the Internet, and the digital technologies which support it, is still a relatively novel phenomenon and the capabilities and limitations are not yet fully known or understood; second, to provide empirical evidence as to the nature and role of ICTs as an influence on political instability. The 2010-2011 Arab Awakening provides a unique opportunity to examine the role of ICTs in political protest. If there is no relationship between ICTs and the recent protests it would prove difficult for an external actor (i.e. a nation state) to influence a population using *iggression*. A study which examines population demographics and social structure characteristics in congruence with digital technologies may clarify risk factors leading to political instability. Moreover, empirical data can support or refute such claims a government may use the Internet in an *iggressive* manner, that is, to instigate a political revolution in another country.

The main question driving this study is: can ICTs influence the behavior of a population in the case of political revolution? To address this question it is imperative to know how political instability was explained prior to the Internet age. Elements of the social structure must be taken into account, specifically government type, economy, and level of press freedom; population demographics; and access to Internet technologies.

At a 2010 session of the International Telecommunications Union (ITU) the topic of cyber disarmament was discussed by military leaders and government officials around the world

to address the possibility of cyber attacks by one or more countries against another. One outcome of the ITU session was the construction of a multi-national committee called the Internet Governance Forum (IGF). The IGF held its first meeting in 2011 to address the role the Internet may play as a “catalyst for change,” pointing out the recent cases of WikiLeaks and the Arab Awakening movement (A plaything of powerful nations; who should run the Internet, 2011, p. 64). World leaders involved with the IGF had strategic decisions to make regarding how they can implement a system of control over information flow on the Internet.

The issue of Internet governance is a controversial one among world leaders because there is a difference of opinion as to how a population can use information obtained through digital technologies. The countries which make up the OECD (Organisation for Economic Co-operation and Development), mostly Westernized countries, argue against government control of the Internet, asserting openness of the Internet helps propel the global economy. A second author argues against Internet governance for two main reasons; “first, it has encouraged innovation...second, nobody controls the Internet” (In praise of chaos Internet governance, 2011, p.16). Due to the debate over the economic benefit of an open Internet, the innovative capacity of such technology, and the political dilemma of uncensored information there is an ambiguous area as to how a measure of information control can be implemented. Hence, any implementation of Internet control would include subjective measures dependent upon the author(s) of an Internet regulatory bill. Currently, some governments rely on internal censorship to interrupt the flow of information since there is no internationally agreed upon “rules” for Internet communication (Pranash, 2011).

In regard to blocking users from reaching specific Internet sites, it is not always the government blocking access to users but web hosts can also interfere with access. Zuckerman

(2010) points to a recent case in which a user was blocked from posting material that highlighted health and women's issues in Zimbabwe on a site run by a web host called BlueHost. According to U.S. Executive Order 13391, companies are prohibited from undermining democratic processes and institutions in Zimbabwe. BlueHost is a U.S. based company and therefore subject to penalty under that order for noncompliance, but web hosts such as BlueHost can interpret legislation like Executive Order 13391 as conservatively as they like (Zuckerman, 2010). This particular user was not posting content undermining democracy, but rather promoting it in the region and BlueHost still shut the site down to ensure compliance with Executive Order 13391. Web hosts are free to interpret international laws as they see fit, even at the cost of blocking thousands of users in one country from accessing web content. In an era where world leaders haggle over Internet governance, the capabilities and limitations of these ICTs should be cautiously examined before creating laws and policies governing them.

Agre (2002) reminds us "the recalcitrance of institutions may be masked during a period of rapid change in ICTs, when a swarm of specific innovations focuses attention on novelty and its opportunities, but even these developments cannot be well understood except against the background of the many dynamics that tend to keep institutions functioning the way they already do" (p. 315). Hence, the Internet may influence change in social institutions, but there are other factors in place that keep entrenched institutions functioning according to the status quo.

The Arab Awakening movement received widespread speculation as to the extent that ICTs were used to influence public and international opinion during the movement. The Arab Awakening (also called the Arab Spring, Arab Rebellions, or Arab Revolutions) is a social movement that began on December 17, 2010 in the Middle East and North Africa (MENA). This social movement involved large portions of the population who engaged in massive protests

against oppressive, and often violent, regimes in the MENA region (Arab Spring, 2012; Bilal, 2011). Figure 1 (p. 7) shows the MENA and Central African countries which were expected to have highly fragile state governments in 2010 (Polity IV Project, 2010). Since a controversy regarding Internet governance has recently emerged and has embroiled world leaders in debate, this social movement can allow an examination of the role ICTs played in political protest.

**Figure 1.** Polity IV State Fragility Index

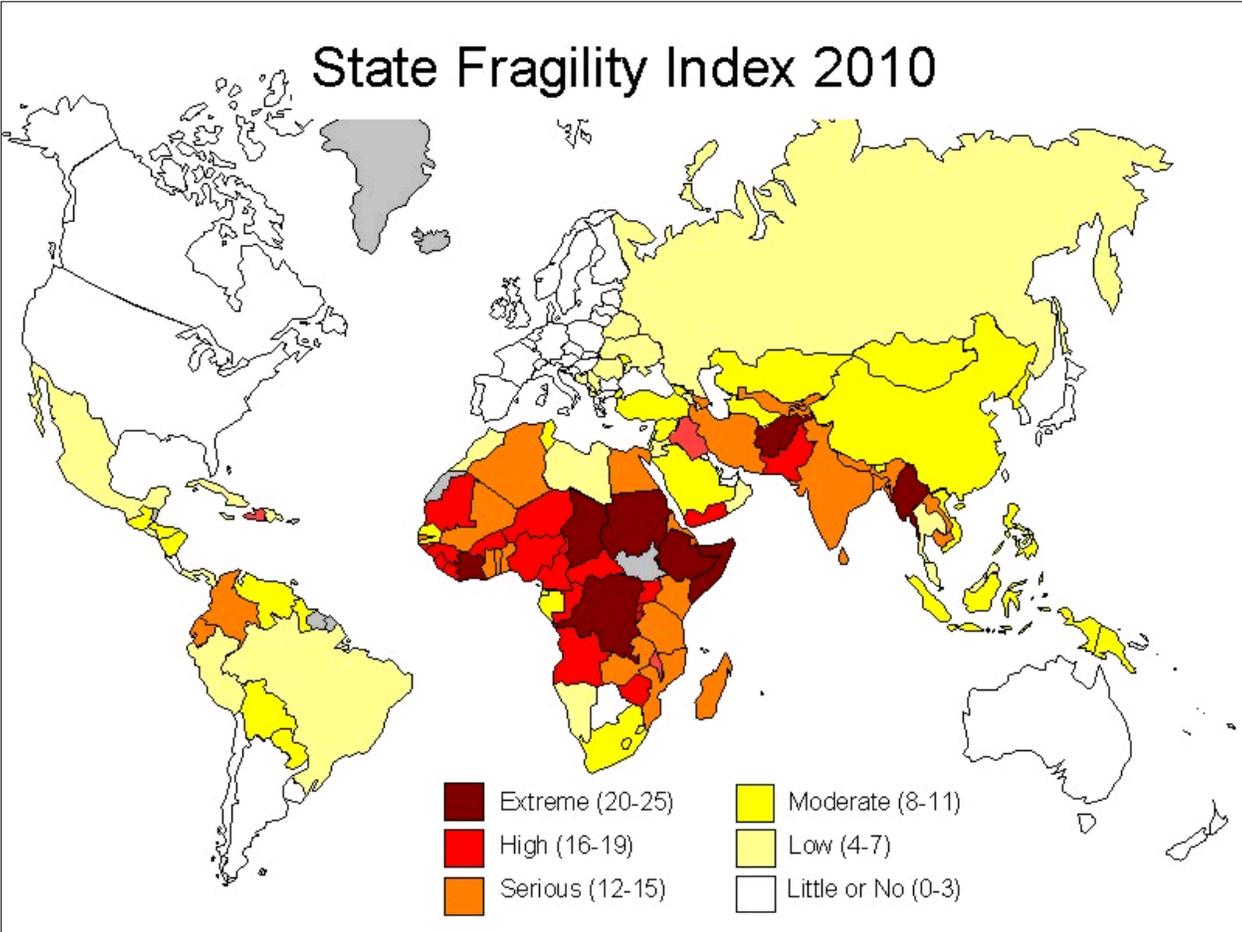
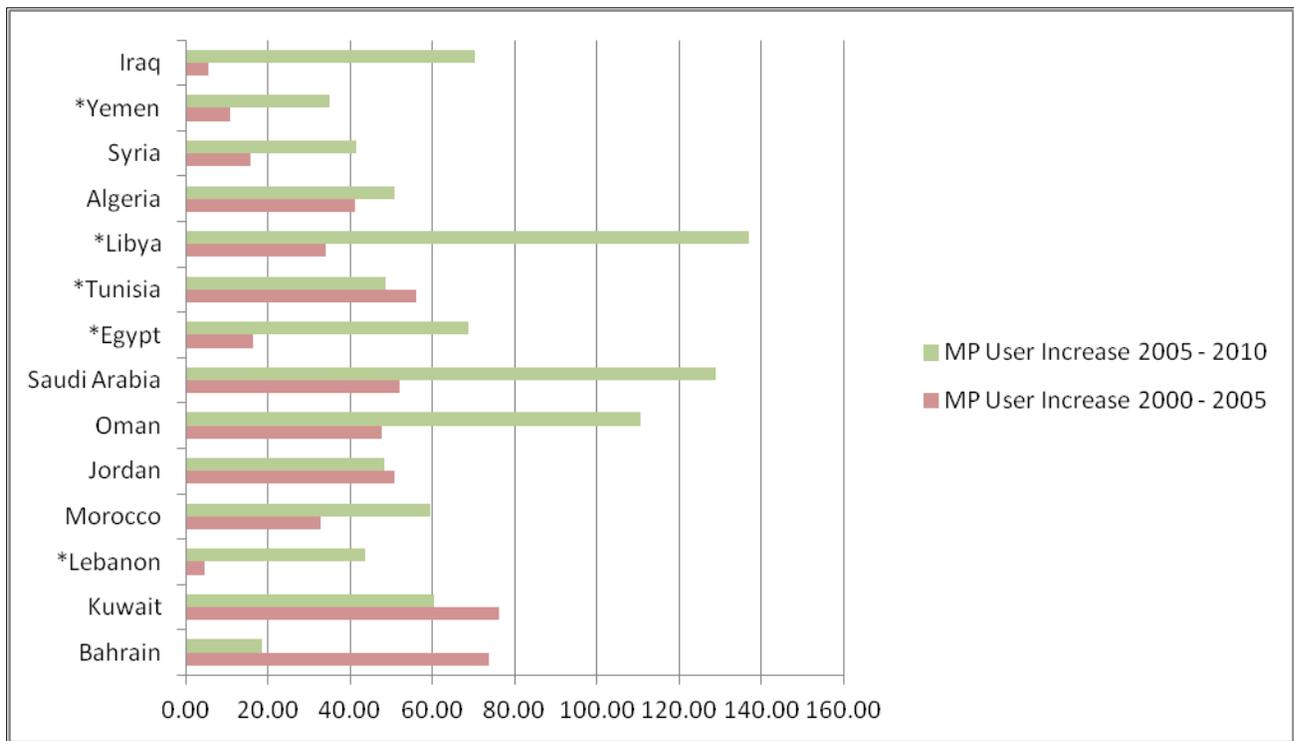


Figure 2 (p. 8) reveals the change in mobile phone subscriber and Internet user penetration rates from 2000 to 2005 and from 2005 to 2010 among only those countries which have experienced Arab Awakening protests (World Bank, 2011). Out of all the Arab Awakening countries 7 out of 14 experienced an increase of 40+ users per 100 inhabitants between 2000 –

2005 and 12 out of 14 experienced an increase of 40+ users or more between 2005 and 2010. Compared to the proportion of all MENA countries this initial data suggests mobile phones played a moderate to significant role in the Arab Awakening movement. Further investigation into this specific movement is necessary to suggest or identify policy implications and mobilization strategies for future social movement leadership and government response to such situations.

**Figure 2.** Mobile phone subscription penetration rates in MENA region from 2000-2010



There is much speculation and little empirical evidence about the role of the Internet because of its recent emergence in daily life as well as the ever evolving digital devices which connect users to the global network. The policy implications for this study are wide-reaching: the decision on behalf of the United States to intervene in civil uprisings around the globe, policing strategies for managing collective crowds, and peace-keeping strategic planning are just

some of the areas which may benefit from these research findings. The current controversy over Internet governance may also be impacted by this study. If the findings show no relationship between ICTs and political instability then the likelihood of *iggression* occurring is negated because a population that is not motivated by internal communications and pressure to protest is not likely to be motivated by an outsider trying to instigate civil war. On the other hand, if ICTs do have a significant relationship to political instability we may need to examine policies regarding intervention in foreign civil wars.

The research questions to be addressed in this thesis are: 1) is youth cohort size related to future political instability; 2) is an educated public likely to increase political instability; 3) does a weak economy increase political instability; 4) do more media restrictive governments experience higher levels of political instability; 5) is there higher usage of ICTs in media restrictive countries; and finally 6) does ICT usage affect political stability?

The answers to these questions can affect U.S. foreign policy as well as domestic programs and policies considering collective crowds and social movements not to mention the strategic planning of social movement leaders. The findings will also add empirical data to social movement theory concerning the role of ICTs as factors of mobilization and give social movement leaders valuable insight into strategic approaches and using the Internet as a tool in relation to their long term goals.

## Chapter 2

### Conceptual Framework

The frame of reference for this thesis is population traits and social environment characteristics coalesce with ideology to create a resistant collective identity and thus an atmosphere ripe for social change. Castells' along with other new social movement theorists highlight the importance of collective identity in the formation of a societal structure (Castells, 2000; Hunt, Benford, & Snow, 1994; Johnston, Laraña, & Gusfield, 1994). In order to facilitate institutional systemic change actors must adopt a resistant collective identity and perceive they have the power to cause change as well as the ability and intent to do so. Motivating factors are the catalysts, or crisis events, which transition a resistant collective crowd from thought to social action with the goal of stimulating or achieving large scale systemic change. Finally, mobilizing strategies serve to disseminate information, recruit participants, and organize the protest action of individuals.

Social movements, in the form of political protests, can be difficult to understand and explain. There are a multitude of factors to consider which may exacerbate population grievances or ameliorate such grievances. Past studies of social movements prior to the Internet age highlight specific population traits and social environment characteristics in which grievances may incubate and then erupt during or after a crisis event. We must isolate factors which may threaten political stability since Internet technologies are still relatively new resources *a priori* knowledge of factors which foster an environment of social change must be identified and fully examined.

## *2.1 Previous explanations for political instability*

“Political activities on the Internet are embedded in larger social processes, and the Internet itself is only one element of the ecology of media. The Internet does not create an entirely new political order; to the contrary, to understand its role requires that we understand much else about the social processes that surround it” (Agre, 2002, p. 315). Agre makes a valid point in his argument, one single factor rarely explains an entire phenomenon because social life is built from an historical context, physical environment, and social institutions creating a plethora of factors that constantly shape and influence individual and group behavior. Individuals also attempt to incorporate their understanding and perception of their social milieu into the technologies they frequently use.

Social network ties, age cohorts, education, and limited labor opportunities have been proposed as explanations for collective behavior regarding political protests prior to the Internet age. Repression of civic freedoms and human rights violations cause individuals to feel marginalized by their government and they no longer feel any benefit in legitimating the very authority which is causing their suffering. Hence, a resistant identity can begin to take root as individuals are further stigmatized by their own government resulting in violence on behalf of the marginalized and stigmatized as well as the stigmatizers, government officials or others in positions of power. “A high degree of separation of the various levels of society – historicity, institutions, organizations...in social practice the social movement is swallowed up by institutional pressures and organizational claims, often to the point when it no longer appears except as a negative impression, that is, as we have seen, by violence” (Touraine, 1977, p. 357). A greater level of stratification within society, in terms of class for instance, can make way for a

greater chance of political violence to erupt both from people who feel marginalized and from police forces who are ordered to repress any oppositional voices to the governing regime.

Disseminating information through traditional social networks may be how protests were once fueled and ignited. Lim (2008) finds past arguments predicting stronger and closer network ties would be more likely to result in participants being recruited into a protest movement, however, her study shows the strength of the social tie is actually less important than “a common interest in politics and shared political identity” (p. 975). Lim also found in that same study associational ties are a key factor in effecting protest mobilization while neighborhood ties are what recruit protestors into the movement. However, social networks in the form of close network ties may not fully explain the eruption of protest movements alone: the exchange of communication plays a bigger role in organizing and mobilizing protests than personal social network ties. Shared ideology, as in political affiliation, is also an influential factor in recruiting people to participate in social movements which oppose entrenched social institutions.

Adopting new innovations is also facilitated by traditional social networks. “Social networks are of fundamental importance to ordinary adoptions (of innovations); more than anything else people can move other people” (Lazarsfeld et al. in Michaelson, 1993, p. 218). Michaelson’s (1993) study on the adoption of scientific innovation shows the importance of the role traditional mass media outlets play in the beginning of the diffusion process, but traditional social networks influence individuals to adopt new innovations and inventions (p.231). While mass media may inform the public about social news it is actually the influence of primary and secondary group interactions which transition individuals from watchers to participants in social movements.

Goldstone (2011) isolates several factors he believes must be present for a successful political protest to occur: “the government must appear so irremediably unjust or inept that it is widely viewed as a threat to the country’s future; elites (especially in the military) must be alienated from the state and no longer willing to defend it; a broad-based section of the population, spanning ethnic and religious groups and socioeconomic classes, must mobilize; and international powers must either refuse to step in to defend the government or constrain it from using maximum force to defend itself” (p.8). Mikael Gorbachev’s visit to East Germany in October of 1989 is an example of this last factor of a state not being able to rely on external reinforcements. Gorbachev encouraged Erich Honecker, the head of the East German regime, to end citizen protests by reforming the government. The relationship between Gorbachev and Honecker was a strained one and the GDR would not be able to rely on reinforcements from the Soviet Union to repress an uprising by East German citizens (U.S. Department of State, 2011).

Altogether, citizens must see the political institution of their country as irreparable, elites must side with protesters, mobilization of the protestors must occur, and outside forces must refuse to intervene. However, all four of these factors may not be necessary to ignite political protest. The recent protest movement in Tunisia proves all four of these steps are not required to incite protest, the public witnessed one catalytic event and mobilized themselves into full-blown protest: no elites were involved in the initial protest organization and international governments did not have time to choose between the Tunisian government and the protestors. Therefore, other factors must be investigated as possible influencers.

Goldstone (2001) used demography to explain political violence and said “it is particular kinds of demographic changes, occurring in particular political and economic contexts, that cause instability;” Goldstone calls these large cohorts “youth bulges” and explains further “large

youth cohorts are often drawn to new ideas and heterodox religions, challenging older forms of authority...and the existence of a 'youth bulge' (an unusually high proportion of youths 15-24 relative to the total adult population) has historically been associated with times of political crisis" (pp. 9, 11). Huntington (1996) states when a youth cohort reaches or surpasses 20% of the population a country will be more vulnerable to political protests, revolutions, or upheaval (pp. 259-261). Goldstone makes two crucial points regarding how population change is associated with political violence, two of them relevant to our discussion here: 1) "an expanding population of higher-educated youth facing limited opportunities to obtain elite political and economic positions" and 2) "a large youth bulge; that is an expansion of the 15 to 25 age cohort relative to the overall adult population of a society, especially where political institutions are weak" (2001, p. 14). It seems education and economic factors may play an influential role among a large youth population in a weak political system.

Goldstone (2001) points out when a large proportion of the population is in the age range of 15-25 there is an increased risk for political violence. Studies of the Middle East have highlighted the population increases over recent years in the region discussing the level of pressure this burgeoning population puts on the economic, education, and employment institutions (Winckler, 2002; Urdal, 2006). A larger portion of youth has to be fed and sheltered until they are able to take care of themselves which adds to the economic burden of members of a society and the government.

Large youth cohorts strain the education system as the state has to increase the amount of money spent on education to maintain current teaching standards among the students entering the education system. Education level of the population may also be predictive of the potential for political instability. As more of the population reaches higher levels of education there will be

frustration among those who have spent time in school only to get out and not be able to secure employment. It would seem logical that a more educated population would seek political change through more peaceful remedies, but Winckler (2002) states a “high unemployment rate, particularly among young university graduates, is considered one of the most dangerous socio-political phenomena in any given regime, especially autocratic regimes” (p. 635). People who are in economic dire straits because of chronic unemployment may be willing to use escalating levels of violence to vent frustrations against the government.

Recent criminological theories point to the concept of age as a factor in crime and violent behavior. This trend continually shows in empirical criminological studies whereby crime begins to rise among 14 year olds, hits a peak at 19, and then falls around 25 and remains relatively low throughout the rest of the life course (Hirschi & Gottfredson, 1983; Hirschi, 1969). Since ‘youth bulge’ theory also points to the age cohort of 15-25 year olds, the life development that occurs, meaning biological, physical, and mental maturity, during this stage of life must be critically examined as a factor of life stage changes rather than a causal factor in political unrest. Additionally, Tir & Diehl (1998) point out that scholarly literature from political scientists does not consistently show a “strong relationship between population pressures and international conflict” (p.320). Wright (1965) supports Tir & Diehl’s statement with his research on wars in the 20<sup>th</sup> century and also did not find population to be significantly correlated to conflict. Given the aging-out theory in criminology and past empirical evidence population age may not be at all relevant to political instability, but should still be used as a control variable.

Winckler (2002) addressed the growing youth population in the Middle East as it relates to the labor force. “The number of work opportunities needed in the Arab countries will continue to grow rapidly...until the number of those entering the work force, namely, those in

the 20-24 age group, will be equal to those leaving the workforce at the age of 60-65” (Winckler, 2002, p. 621). Winckler does acknowledge that Middle Eastern countries have relied on finding employment opportunities outside of the region in an effort to keep lower unemployment rates. However, with a global recession hitting almost every country in the world right now it is hard to divert efforts outside one’s own country.

Urdal (2006) points specifically to the case of Saudi Arabia in which “approximately four million people (will be added) to the labor force” over the first ten years of the new millennia and Lia (2005) predicted the country would become a fertile place for building terrorist organizations (p.611). The labor force must absorb the number of people needing a job or find another way to employ members of the population to keep unemployment from rising to critical heights. As unemployment rates increase people may feel they have less to lose by engaging in violence to change the political institutions which are failing them. Saudi Arabia has experienced Arab Awakening protests, but not to the extent of some other countries involved in the movement. Saudi Arabia does have a large youth population, but the government has begun to export qualified employees to foreign countries in an effort to reduce the burden of finding jobs for an expanding population which has quelled the explosion of wide spread protests which have been seen in other Middle Eastern and North African (MENA) countries (Winckler, 2002).

## *2.2 Regime type and political instability*

Past research into political instability has considered the role of economy in regime transition. de Soysa (2002) finds through empirical analysis there is an inverse relationship between per capita wealth and political conflict (p. 397). “Greed’ effects, measured by the availability of natural resources, particularly mineral wealth, are a potent predictor of conflict”

(de Soysa, 2002, p. 413). Economic situation seems to be an influential factor in the emergence of political contention.

Przeworski & Limongi (1997) found past research linking economic situation to political unrest, however, their study could find no such connection. In their empirical analysis of government transitions in 135 countries from 1950-1990 the results indicate that economic development is not necessary for an autocratic regime to fall and an economically developed country tends to have a stable, entrenched government whether democratic or autocratic (Przeworski & Limongi, 1997). Autocratic regimes survived even when the per capita income was rather high which could mean when people feel their economic situation is relatively stable they have less cause for grievance regardless of the type of government or political system. Przeworski & Limongi (1997) conclude “democracy is or is not established by political actors pursuing their goals, and it can be initiated at any level of (economic) development...the chances for the survival of democracy are greater when the country is richer” (p. 177).

Epstein et al. (2006) cite Przeworski & Limongi's (1997) study stating “modernization-specifically, an increase in per capita GDP-is not a causal factor in the process of democratization” (p.551). Epstein et al. (2006) state the type of government variable used in Przeworski & Limongi's 1997 study was dichotomous and so did not account for governments that actually had a partial democratic government in place. Epstein et al. (2006) used a trichotomous measure of democratization to account for countries with partial democracies. They found higher incomes of per capita increased the likelihood of political transition to a democratic regime (p. 566). Furthermore, it seemed from these results that partial democracies are the government types which lead to a fully democratic political transition when per capita increases (Epstein et al., 2006, p. 566).

The seeming instability of partial democracies could be explained by the collective identity which may develop among people who have a greater voice in their government officials. King Abdullah II of Jordan argues a large middle class will want a bigger say in the governing of their country (Jordan, 2011). If this is in fact true will autocratic countries with a stronger stable middle class experience more political unrest? As past research (Przeworski & Limongi, 1997) into per capita income shows there is not much evidence that economy is a motivating factor in political protest, but a large middle class can form a collective identity about their perceived wants and needs which may play a role in political protest mobilization.

Castells (2000) argues actors can now engage in forms of violence unlike previous physical forces, but with Internet technologies actors gain power by influencing the thoughts and behaviors of others. Physical violence to repress political opposition is no longer necessary and, because of increased human rights focus by global leaders, no longer the best course of action for a regime. Instead, ICTs allow governments to enforce strict regulations on media outlets as to what news is available to the local population and what stories are released to the global audience.

“A high degree of separation of the various levels of society – historicity, institutions, organizations...in social practice the social movement is swallowed up by institutional pressures and organizational claims, often to the point when it no longer appears except as a negative impression, that is, as we have seen, by violence” (Touraine, 1977, p. 357). A greater level of stratification within society, in terms of class for instance, can make way for a greater chance of political violence to erupt both from people who feel marginalized and from police forces who are ordered to repress any oppositional voices to the governing regime.

Ortiz (2007) examines violence in relation to economic deprivation and regime repression levels. “Early studies of collective political violence revolve around the classic argument that income inequality breeds discontent, but it does not necessarily lead to political violence, since discontent must first be mobilized” (Ortiz, 2007, p. 219). Ortiz (1997) performed a cross-cultural examination of political violence, economic inequality, and regime repression using data from the *World Handbook of Political and Social Indicators III* and found “income inequality failed to explain an increase in collective political action” (p. 226). Regarding regime repression Ortiz found the highest levels of violence mostly occurred in moderately repressive regimes, not extremely repressive as he hypothesized (2007). Ortiz does make some suggestions for future research citing his study relied heavily on data from Western countries leaving most MENA countries out of the dataset. Also, the World Handbook compiles news articles which could contain bias and therefore skew the results (Ortiz, 2007, p. 232). Therefore, regime repression may not be as strong a motivating factor for political protest as age, education, unemployment, or economy.

In a 2011 story in *The Economist* two authors argue why people are less violent today than in the past, which to an extent is true in terms of lives lost because of political violence compared prior to and early in the twentieth century (Pinker, 2011). One possible explanation for the decreasing amount of political violence would be because of the level of globalization which has occurred. As the use of ICTs has increased the level of international awareness regarding specific political crises around the globe there has also been an increase in international pressure on regimes to refrain from violence against civilians from global leaders such as the U.S., United Kingdom, and other large economically influential countries.

More oppressive autocratic regimes create the potential for grievances to develop among a population. When a freedom restrictive government experiences an economic downturn it may be the crisis event necessary to motivate a collective into social action. Regime type and economic situation may also influence the level of violence during a political protest whether exhibited by an outraged public or a repressive police force attempting to quash the rebellion.

### *2.3 Role of media censorship in political instability*

Media censorship can play an important role in the formation of collective identities for social movements. George (2004) addresses the issue of government censorship as it relates to media in a cross-cultural case analysis in Asia. We are reminded that technologies invented before have been free of censorship until businesses and governments exert their authority of control over such media (George, 2004). For instance, when radio technology emerged there was a period of “democratic flowering” before highly influential parties exerted their own type of censorship (George, 2004, p. 523). Similarly, “even if it is hard to regulate behavior given the Net as it is, it is not hard for the government to take steps to alter, or supplement, the architecture of the Net. And those steps in turn that could make behavior on the Net more regulable” (Lessig, 1999, p. 44). A government which seeks to survive as the ruling body will take necessary action to sustain favor with, or reduce grievances of, the majority of their population.

Media outlets in any society operate within a ‘political ecology’ meaning there will be some bias in the stories they report, either to boost ratings with sensationalism which presents a slanted story, because of strict government control over media content, or because of political biases of the media outlet owners (Dahlgren, 2005, p.149). Therefore, the content presented to the audience will determine the type of information which circulates among the population, as well as how individual views are shared publicly. The practice of censorship connects back to

traditional social networks as the primary source for individuals to learn and discuss new information which may change and/or shape their attitudes about specific issues.

“One can raise all of the familiar questions and criteria about media output for political communication, including fairness, accuracy, completeness, pluralism of views, agenda setting, ideological tendencies, modes of address, and so forth” (Dahlgren, 2005, p. 149). Dahlgren makes a point directly related to the accuracy of information presented through various information sources and the possibility of ideological bias in news reports. For instance, in September of 2011 Amnesty International reported a story out of Syria in which the organization stated a young teenager, the sister of a rebel the military had been hunting, had been beheaded by Syrian security agents. The story was highlighted by foreign news media that she was the first female death in Syria since the political protests against President Bashar al-Assad had begun. This death struck a chord with the international audience, creating empathy for protesters of the regime and a demand for the government to lower levels of violence against their citizens. This reported death was integral in the outbreak of new protests against the repressive Syrian regime. However, on October 5, 2011 the ‘dead teenager’ was interviewed by Syrian television and appeared alive and well by all accounts. “The woman said she had run away from her family home in late July because her brothers allegedly abused her... she said her family did not know that she was alive and she asked her mother for forgiveness.” (Oweis, “Syrian woman reported dead by Amnesty is alive: TV”, 2011). This story is just one example of how misinformation can be publicly released and then spread globally within minutes because of Internet technology.

The Syrian government accused media outlets, specifically Arabic news outlets of “broadcasting false news to ignite protests and stir anti-government emotions” (Oweis, “Syrian woman reported dead by Amnesty is alive: TV”, 2011). The government of Syria is not allowing

any foreign news journalists into the country to document events there and has exerted extreme control over what news stories the local media is allowed to release to the public. Hence, the media censorship tactics used by Syria have caused the global audience to question the validity and accuracy of the information coming from international news source as well as the local media which may be stifling potentially ‘damaging’ stories of government mistreatment.

Deregulated media with an interest in free market for profits can be a destabilizing factor in political legitimacy among the population. “Trends (such) as the increase in political voices, new modes of political engagement, and definitions of what constitutes politics,” meaning the Internet can be used as an innovative tool to allow greater political debate among average citizens and, through these debates, the very fabric of politics will be changed (Dahlgren, 2005, p. 151). Privately controlled media organizations allow a population greater access to multiple and diverse political perspectives and arguments. Thusly, private media, by the nature of its content, can create political instability since it offers differing, and often controversial, information about a society’s government.

While the Internet is a vast array of information and a new mechanism for communication we must be careful not to accept stories at face validity, but must dig further as consumers of information to gather different media perspectives covering political stories. Bennett (2003) highlights that given the trend of relying on ICTs to stay informed groups are able to “diffuse their knowledge through the Net to each other, and on occasion their efforts are picked up by journalists on the Net or in the traditional mass media and become disseminated further to wider publics” (Dahlgren 2005, p.159). Basically, if a group releases false or misleading information because it serves their political agenda a news outlet or journalist may come across the story online and become interested. Subsequently, that same journalist or news

outlet would gather information from the group who originally released the information and then broadcast the story to their viewers. The public receiving the information must listen with caution because the accuracy and reliability of the information may not be verified.

Typically Middle Eastern countries have been known for guarding the information they allow their population to receive, but Internet and digital technologies are changing the nature of traditional censorship because determined people will find a way around the obstacles which block access to information.

#### *2.4 The role of the Internet in political protests*

The notion of technological determinism indicates the trend of political uprisings is an inevitable result of the technological innovation of the Internet and social media. Western media outlets would have us believe that social media via the Internet is to be credited for the recent Arab Awakening movement. Additionally, the U.S. should be credited with promoting democracy in the Middle and North African regions. American and Western European media outlets pose a similar argument, but experts and journalists from the Middle East disagree with this point-of-view. Arabic experts in the region claim the promotion of democracy in the MENA region is a fallacy in Western thinking. Some Arabic experts argue that a large youth cohort, economic recessions, high rates of unemployment, and oppressive media censorship are the primary factors driving the Arab Awakening movement and the push for democracy from citizens in several Middle Eastern countries (Warf, 2011). Not surprisingly youth cohorts and labor situation have already been mentioned and investigated thoroughly in past research studies. Economic structure and press freedoms are more variables to consider which may influence collective behavior in political protest mobilization.

Gerkin (2011), among other independent bloggers, proposed the increase in Internet user numbers has some causal connection to the Arab Awakening protests, especially in regards to social network accounts. For Egypt, population 18 million, about 6 million people have a Facebook account, that is to say 1 in 3 people were able to send and receive information through Facebook. However, core activists were able to send and receive information via Internet and then use traditional social networks to spread awareness about the movement and recruit participants meaning once an activist had information from Facebook they were able to circulate that information through traditional social networks (Salem & Mourtada, 2011, p. 5). The Middle East region has contributed the largest number of new Facebook users compared to all other countries showing 27,711,503 Facebook users were online in April of 2011 compared to 14,791,972 in April of 2010, practically doubling in less than a year (Salem & Mourtada, 2011, p. 9). This exponential increase in social media users is interesting but not necessarily a causal factor because there are always underlying structural and demographic components to be considered.

Salem & Mourtada (2011) show, through examination of changing statistics in social media use among Middle Eastern countries, the Internet played a significant role as an “initial platform” for mobilizing protest movements in all countries involved with the Arab Awakening movement, with the exception of Tunisia (p. 5). The Dubai School of Government conducted survey research, recruiting participants in the Tunisian and Egyptian revolutions, through Facebook. One hundred twenty-six Egyptians and one hundred five Tunisians completed the survey. Of the respondents 31% in both countries believed Facebook was used to primarily promote awareness regarding the civil movements, 33% of Tunisians and 24% Egyptians believed Facebook was used to primarily spread the word about the civil movements to the

international community, and 22% of Tunisians and 30% of Egyptians believed Facebook was primarily used to organize protest activities (Salem & Mourtada, 2011, p. 6). Collectively, almost 85% of respondents from each country shared the belief that Facebook served as a political tool for protesters rather than a source of entertainment. It should also be noted that almost 60% of respondents believed government intervention of Internet access would only make the population more determined to find ways of circumventing government restrictions and that 88% and 94% of respondents, in Egypt and Tunisia respectively, got their daily news about the civil movements from social media sources (Salem & Mourtada, 2011, p.7-8). The results from the 2011 Dubai School study indicate the Internet is not causing people to revolt, but rather is being used as an innovation in communication and organization during political protest.

Weimann (2010) of Haifa University examined social movements specifically related to terrorism and the role of Internet in these movements. “Post-modern terrorists are taking advantage of the fruits of globalization and modern technology – especially advanced online communication technologies that are used to plan, coordinate, and execute their deadly campaigns” (Weimann, 2010, p. 45). Geography is no longer a hindrance on social movements because ICTs allow everyone to be simultaneously connected and communicate in real-time. In addition to being able to communicate, participants can now be recruited through the Internet; “the global community shared by social networks and interactive forums on the Internet is advancing...terrorists’ goals to share their extremist messages (with) global audiences” (Weimann, 2010, p. 53).

Exchanging information is probably the single most important role of the Internet. Given so many rely on information through ICTs via computers, tablets, cell phones, etc., it is necessary to review literature from recent years to more thoroughly examine the role of ICTs in

social movements. Ayres (1999) notes “the rise of global and regional trade pacts combined with the interdependence of communications technology has encouraged a transnationalization of a variety of social forces...transnational collective actors have sprouted up in recent years in conjunction with a variety of international arrangements, from human rights and environmental regimes to neoliberal trading arrangements” (p. 134). The Internet has not only globalized the world but also created interdependence for enforcing human rights, addressing the issue of hunger in developing countries, and putting international pressure on leaders who would harm members of their population were they not in the global spotlight.

Internet and its supporting software systems can play a role in *iggression* through the process of diffusion through ICTs. Michaelson (1993) defines diffusion as “the process by which an innovation (any new idea, activity, or technology) spreads through the population” (p. 217). Given this definition it is possible the Internet can be used as a vehicle for delivering political propaganda in an effort to undermine another government’s authority, but is this happening? A study done by Carty & Onyett (2006) focuses on “how Internet serves as a central means of communicating grievances, sharing and expanding communication across various transnational constituencies, and ultimately increase the interconnectedness and consciousness of groups and individuals on a global scale” (p. 230). Carty & Onyett quote Poster (1995) “when users have decentralized, distributed, direct control over when, what, why, and with whom they exchange information...it seems to breed critical thinking, activism, democracy, and equality...this electronically mediated communication can challenge systems of domination” (pp. 28, 57). Carty & Onyett (2006) remind us “networks forged in protest events and in cyberspace, is crucial in that it is here we find the link between macro-level (structural) and micro-level (emotional) explanations of collective action” (p. 245)

Ayres (1999) says “cyber-diffusion – the rapid, computer-generated dissemination of information around the world, without concern for geographic location – has not only changed the nature and process of contention but has encouraged a significant rethinking of those concepts available for understanding this contention” (p. 133). “Internet inspired protest seems likely to be influenced by domestic and international political concerns” which supports Warf’s argument (Ayres, 1999, p. 135). Since the Internet is a colossal base for procuring information “this collection of resources...removes barriers to the rapid diffusion of protest ideas, tactics, and strategies” (p. 137). Ayres concludes that we should not preclude cultural affinities which have functioned to diffuse protest information and tactics in the past (p. 141). The Internet allows for information to reach a larger population perhaps facilitating political uprisings, but alternatively structural elements within a culture still exist which could stifle such a movement.

El-Shenawi (2011) examines the possibility the Internet may be used as an organizational tool for political protests and social media information sent via Twitter and YouTube may spur on more protests. “We may start to see a vicious cycle where the protests start, people tweet about them; the tweets lead to more protests” says Mohammed el-Nawawy who has been studying the Internet phenomenon of blogging (El-Shenawi, 2011).

In 2005, Cammaerts examined the role of ICT usage in transnational social movements in network societies pointing out the importance of social media in facilitating organization among protesters for social change. “There is the potential of strengthening public sphere through the mediation of political debate...as a potential means to extend the working of transnational social movements, geographically, to organise internationally, to build their own constituencies with like-minded organisations” (Cammaerts, 2005). “Revolutionary innovations in communication...have considerably undermined the sovereignty and legitimacy of (the) nation

state” (p. 56). Although most of the social movement organizations Cammaerts uses are from Westernized countries, he finds in this study that social movement organizations are becoming increasingly proficient in using the Internet to “organize themselves internationally” (2005, p.71). In the past social movements have grown in a local area, but now the Internet allows for movements to spread internationally in a matter of hours or days.

There are several roles ICTs can play in political protest. They allow for the rapid spread of information across large geographic areas. ICTs can be a resource for mobilization as social movement organizations (SMOs) use the Internet, social media, and cell phones to coordinate with each other, plan protest events, and recruit participants. ICTs may also play a role in *aggression*, but this last role has not been empirically tested.

### *2.5 New social movements*

Over the last twenty years a paradigm shift has occurred among scholars involved in the investigation and examination of social movements during the last generation. The shift largely occurred because of the transition of societies from industrialized to post-modern or information-based societies (Johnston, Laraña, & Gusfield, 1994). Some of the social movements occurring, beginning around the late eighties, did not fit into the traditional models of social movement theory made popular in the beginning of the twentieth century. Traditional social movement theories did not adequately understand the demographic characteristics of the collective group and ignored the emphasis on organization and repercussions against members associated with some groups. Johnston et al. (1994) remind us “the concept of ‘new social movements’ (NSM) is a double-edged sword...by focusing attention to the meaning of morphological changes in their structure and action and by relating those changes with structural transformations in society as a whole...on the other side, there is a tendency to ‘ontologize’ new

social movements...as if it captures the ‘essence’ of all new forms of collective action” (p. 5-6).

NSM theory tends to focus on current social movements in information-based societies involving lifestyle and personal freedoms such as gay rights and feminism; however, political movements focusing attention on human rights as a subject are almost non-existent in NSM theory.

Therefore, it can be presumed NSM theory alone does not include all forms of collective action but it can lend a solid theoretical foundation for an integrated theory.

Large societal and cultural shifts are now possible with the invention of the Internet. Alain Touraine (2000) poses the question “how does the distance from established norms lead to creative freedom, rejection of old rules or non-socially regulated emotions and finally to the creation of new norms” (p. 901)? How are norms we are socialized to accept and internalize replaced with norms more fitting our thoughts and personalities, not to mention the changes in the norms from one generation to the next. Social mores and cultural norms are directly affected by the changing attitudes of the young who will become the overseers of society. How do social actors transition from deviant thought to social action? Touraine (2007) suggests as sociologists we must consider a new paradigm for examining societal change “in order to be able to name the new actors and new conflicts, representations of the ego and collectivities, disclosed by a fresh look that reveals a new landscape before our very eyes” (p. 1). Touraine’s suggestion of a new paradigm is now warranted because of the widespread use and availability of information via digital technologies with Internet access and social media networks since they increase the speed of information dissemination over a larger geographic area. Furthermore, access to cell phones and Internet is something new to the MENA region and it has predominantly evolved over the last decade.

New social movement theories are described by Pichardo (1997) as “a product of the shift to a postindustrial economy...and are different from social movements of the industrial age” (p. 412). Most countries in the Middle East are still industrial societies but they have access to information-based cultural technology such as cell phones and Internet access. Protest movements have now occurred in an overwhelming number of countries within the Middle East region and traditional media outlets have been quick to credit online social media and cell phones for the protest eruptions. Since the countries involved in the Arab Awakening movement vary in type of political system, economic situation, and literacy rates, traditional social movement theory does not adequately explain this protest movement and thus new social movement allows for the examination of factors concomitantly to study the evolution of political revolution.

NSM theory allows a macro and micro theoretical approach to the study of these protest events. “On the macro level, the NSM paradigm concentrates on the relationship between the rise of contemporary social movements and the larger economic structure, and on the role of culture in such movements. On the micro level, the paradigm is concerned with how issues of identity and personal behavior are bound up in social movements” (Pichardo, 1997, p. 411). Silverstone, Hirsch, and Morley (1994) define information and communication technologies (ICTs) as “televisions, telephones, videos, and computers...as media; they provide, actively, interactively or passively, links between household members, and individuals household members of households, with the world beyond their front door” (p. 15). These new forms of communication allow users in isolated regions of the world to communicate with others around the globe as well as receive information about places and people they did not have access to before. Most of the devices we use today for communication and entertainment involve digital

technologies which are constantly connected to a global network. Previously, pre-Internet regimes maintained tight control over the information their citizen's received as well as keeping local media news stories from reaching the outside world; however, ICTs now allow the world to enter virtually every aspect of our social lives.

It has been argued (Pichardo, 1997) that NSM theory is only pertinent to studying movements occurring in postindustrial societies, but ICTs add a Western influence in terms of information sharing. Pichardo (1997) states “NSMs emphasize quality of life...and question the structures of representative democracies that limit citizen input and participation in governance” (p. 414). Most of the Middle Eastern countries which have seen political revolution are partially democratic allowing the popular vote to determine the top leader who then chooses the top level officials in the regime.

There are eight fundamental characteristics of NSM as laid out by Johnston et al. (1994, p.8):

1. There is a tendency for transcendence of class structure among collective groups
2. They encompass cross-cultural ideas and values
3. Often involve the rise of new identities or identities which were once weak
4. There is less distinction between the individual and the collective
5. They involve cherished aspects of everyday human life
6. They use radical mobilization strategies to disrupt and resist oppositional forces contrary to the practices common in past working-class movements
7. “Credibility crises” are commonly motivating factors “for collective action in search of alternative forms of participation and decision making relating to issues

of collective interest” they have a tendency to be decentralized, diffused, and fragmented

8. New social movements tend to be diffuse and decentralized

This study will focus on three characteristics of NSM theory: the rise of new identities, credibility crises, and mobilization strategies. To facilitate a social movement using a crowd it is necessary for the crowd to share a collective identity as they share the same desired outcome. Polletta & Jasper (2001) define collective identity as “an individual’s cognitive, moral, and emotional connection with a broader community, category, practice, or institution: It is a perception of a shared status or relation (and) may be imagined rather than experienced directly” (p. 285). Hunt, Benford, & Snow (1994) ascertain identity constructs are intrinsic in all social movement behaviors therefore we may presume a crowd in political protest shares the same collective identity while they are collectively pursuing the same goal (p. 185).

Pfaff (1999) argues a “state crisis or divisions within ruling elites may be important openings that challengers exploit and thus may play a critical ‘triggering’ function of mobilization” (p. 7). A “crisis” can be the motivating factor which encourages the mobilization of protest in the form of collective social action. Touraine (1977) emphasizes a “crisis” of some kind can play a key role in the formation of social movements: “social movements are affected by the situation of the social organization...discordance between different sectors of the social organization and, to an even greater extent, the existence of a profound economic, political, or military crisis will affect social movements” (p. 359). Dahlgren (2005) supports Touraine’s position by explaining “talk among citizens is the catalyst for the civic cultures that are fueling” the engagement of political contention (p.160). The first protests in Tunisia and Egypt were a response to the self-immolation of citizens like themselves, thus these incidents of self-

immolation, a 'crisis', served as a motivating factor. An examination of recent political social movements in non-Western democratic nations, both before and after the influence of ICTs, could lend further support to Touraine and Pfaff's ideas about crises serving as motivational factors for protests.

Mobilizing strategies are a method of organization and a mechanism for information diffusion to participants in the social movement. Pichardo (1997) mentions some tactics which may be used in NSMs, specifically "employing disruptive tactics and mobilizing public opinion to gain political leverage" (p. 415). During some of the Arab Awakening protests the posting of videos on YouTube by protesters documented human rights violations occurring under oppressive regimes. These videos which were seen by thousands of viewers both internally and externally can be considered disruptive tactics because they garnered public opinion for the protesters from the international audience while limiting the government's response options. Prior to the Internet many social movements relied on elite members of society to help mobilize protesters. Touraine (1977) points out "collective action tends to be more a generalized uprising guided or utilized by ruling counter-elite, by a specifically political action directed against the state" (p. 357). Prior to ICTs elites held the power to initiate and facilitate collective groups into social action. For instance, the civil rights movement in 1960s U.S. was led by people (i.e. Martin Luther King, W.E.B. Dubois) who held power to exert influence on government officials to change laws which eventually changed behaviors.

The introduction of the Internet into society allows for information to be disseminated quickly and to a greater number of people. This results in massification and perhaps makes elites, as a component in social movements, obsolete. If there are a greater number of protesters,

the massive amount of people in opposition to an institution can overwhelm the security forces protecting that institution.

## 2.6 Castells' identity-building and space of flows

Manuel Castells is considered a prominent theorist in the area of new social movements and he has produced a three volume work about the characteristics of the "network society." The "network society" is simply a new term for post-industrial information based societies which are completely immersed in digital technologies. Castells addresses issues regarding the nature of Internet technologies, collective identity, and social change in these network societies. The identity building typologies and insights into the use, storage, and flow of information in the digital age is used as a theoretical foundation for this thesis.

In Castells (2000) first volume *The Network Society* he addresses the flow of information in a network society. He uses the term "space of flows" to describe the location of information in the digital age; "space of flows" encompass all the physical locations in which information is stored, as well as the non-location which is the Internet which houses data on almost every aspect of our world (Castells, 2000, pp. 442-443). Because information can be manipulated both online and through heavy handed government censorship it is important to keep in mind that accuracy and reliability can be inaccurate or intentionally falsified.

"Identity is people's source of meaning and experience" (Castells, 2010, p.6). In his second book *The Power of Identity* Castells (2010) delves into the subject of collective identity formation and power in the network society by stating "the construction of identity uses building material from history, from geography, from biology, from collective memory and from personal fantasies, from power apparatuses and religious revelations...but individuals, social groups, and societies process all these materials, and rearrange their meaning, according to social

determinations and cultural projects that are rooted in their social structure, and in their space/time framework” (p. 7). Castells (2010) surmises identity formation differs in a network society because of the role the Internet plays. He sees three separate types of identity building based on the perception of the individual (p. 8):

1. Legitimizing: the power of dominant institutions is perpetuated through the behavior of individuals in the culture
2. Resistance: stigmatized groups, or minorities who are opposed to the legitimated institutions form identities which resist the entrenched power.
3. Project: newly formed identities of social actors based on cultural material in which they lobby for large scale societal change.

In Castells (2010) view the type of identity building which occurs will lead to a different outcome comprising society and one identity may form as a result of another (p. 8). Each type of identity building in Castells’ typologies shows the level of power an institution has over society as a whole. Actors can legitimate the power institutions have by recognizing that power through individual action, whereas resistance and project identities are formed by not allowing the power of the entrenched social institutions to be legitimated.

### *2.7 Smelser and collective behavior*

Like Castells, Smelser was interested in collective crowds and social movements, but Smelser focused on collective behavior in crowds participating in social movements. Smelser (1965) classified political revolutions as value-oriented movements and defined collective movements as the “collective efforts to modify norms and values” (p. 3). Hence, political revolutions occur as a result of a collective group arguing for a change (or changes) in the norms and/or values of society.

Actors participating in the movement and mass media agents find new ways to communicate (Smelser, 1965, p.6). The recent Arab Awakening movement is an example of these new ways of communication because it was one of the first political movements in which participants used ICTs to recruit participants, deliver information, and influence a larger audience. According to Smelser (1965) collective behavior is “mobilization on the basis of a belief which redefines social action” (p.8). These beliefs “involve an assessment of the extraordinary consequences which will follow if the collective attempt to reconstitute social action is successful” (Smelser, 1965, p. 8). A collective group will base their social action on what they believe the end result will be. Therefore, ICTs can serve as a mechanism for mobilization which allows participants to communicate and organize activities

Egyptians who watched the protests in Tunisia saw the potential to oust a government which ignored human rights and, consequently, protests erupted in Egypt. In order for behavior to actually become “collective” some mobilizing factor, or mode of communication such as ICTs, is necessary to organize the group and disseminate these beliefs (Smelser, 1965, p. 11). Again ICTs were heavily used during the Arab Awakening in most Middle Eastern countries to inform a global audience, as well as potential participants, about the local movement.

Smelser (1965) identifies six important determinants of collective behavior (p. 15-17):

1. Structural conduciveness: characteristics of the social environment which permit or encourage occurrences of collective behavior.
2. Structural strain: a real or anticipated situation which threatens the current social environment of the actor.
3. Growth and spread of a generalized belief: communicating the beliefs to others and imbuing the importance or meaning to prospective participants.

4. Precipitating factors: an event which may validate or substantiate fears or hatreds in a generalized belief.
5. Mobilization of actors: the outbreak of social action by the collective group.
6. The operation of social control: “counter-determinants which prevent, interrupt, deflect, or inhibit” the social action of the collective crowd.

The ideas put forth by Castells and Smelser are quite similar to new social movement theory. It is important to note here that new social movement theory bases much of its propositions on an environment unique to post-industrial and information based societies. Conversely, the Middle Eastern countries involved in the Arab Awakening movement are primarily agriculturally and industrially based societies. Since these societies have information based technologies Castells identity typologies coupled with Smelser’s determinants for collective behavior as a theoretical base will allow a more robust examination of factors present in the Arab Awakening movement and the true role of the Internet in these protests.

### *2.8 Collective identity transition theory*

The theoretical framework for this study encompasses collective identity formation, motivating factors, and mobilization strategies which concomitantly lead to protest movements. Collective population demographics (i.e. education, age, etc.) and social structure characteristics (i.e. regime type, media censorship) are key factors in building a resistant collective identity among a population. Motivating factors, or “catalysts,” are extraordinary events which move the collective crowd from resistant thought to social action. Finally, mobilization strategies allow participants to organize and recruit members into the movement as well as disseminate information to individuals within and outside the movement in an effort to reach a new collective identity.

Castells (2010) suggested identity building can be one of three types leading to different social structure outcomes, but it can be argued each of the three identities can occur in a cyclical pattern, an identity transition, rather than identity building. Legitimizing identities exist among a collective as long as actors behave in such a way that the power of entrenched institutions is legitimated. Grievances can develop among a population and the legitimizing identity can transition to a resistant identity. Motivating factors allow a collective to band together through a sense of shared identity. Finally, mobilizing factors allow a collective to voice their grievances and engage in social action transitioning into a project identity while they imagine the type of change which may occur if their action is successful. Once the collective has achieved the social change they were fighting for a legitimizing identity will be adopted and the process will start again.

The very existence of social action in the form of protest implies a resistant collective identity among the collective group engaging in the movement. Given Castells definition of resistant collective identity a protest event presumes there is no longer a legitimizing identity among the collective because the nature of their protest action is voicing grievances about the functions, or performance, of an institution, in part or whole, and the ultimate goal is social change in that institution. A project identity is not formed until after social change has occurred within an institution and, since the nature of protest is to lobby for social change, protests would no longer occur if a project identity existed among a collective group of actors and a government's political system would not experience much instability.

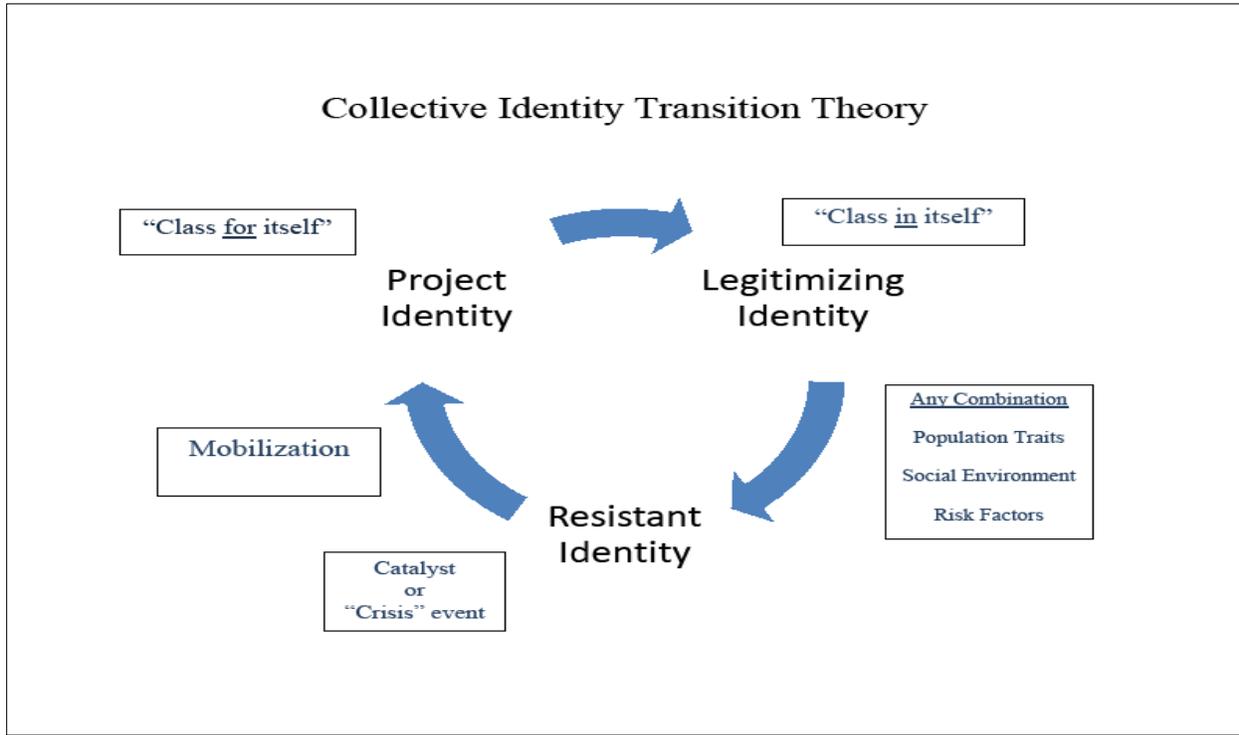
As Snow (2001) points out a collective identity is “generative of a sense of agency that can be a powerful impetus to collective action, but it functions, as well, as the orientational identity for other actors within the field of action” (p. 3). Additionally, McAdam, Tarrow, &

Tilly (2008) introduce two direct and two indirect forms of measuring collective identity which they use past qualitative studies to examine the validity of such measures. “Systematic events data...identify and track the mechanisms which produce episodes of contention;” McAdam et al. (2008) continue their argument by stating “‘downward scale shift’ reduces the number of participating units and/or the range of identities...’upward scale shift’ increases the number of participating units and/or the range of identities” (p.311).

Considering Snow’s and McAdams et al. position on the measurement of collective identity, political stability can be used as a measure of collective identity because the increase or decrease in number of protest participants should be reflected through the increase or decrease in political stability. Furthermore, fewer protesters should reflect a diminishing resistant collective identity with an increase in political stability and more protesters should reflect a strengthening collective identity with a decrease in political stability.

Figure 3 illustrated through a visual diagram of the process of *Collective Identity Transition Theory*. Given the evolutionary nature of societies, that is societies are in a dynamic state of flux regarding how institutions are designed and how they operate, we must consider how governments are overthrown, how populations accept or reject institutional changes, and what mechanisms keep nations stable and operating under stressful conditions. Population demographics and social structure characteristics can impact the identity of a collective and their subsequent behavior.

**Figure 3.** Collective Identity Transition Theory



Population demographics play a central role in various daily interactions and identity formation of a collective because they allow actors to legitimate the power of entrenched institutions. For example, several past studies (Goldstone, 2002; Heinsohn, 1991; Gates, 2002) show age and education, among other characteristics of a population, can play a role in whether a population legitimates or resists government power. Winckler (2002) points out a young, educated population puts a government, especially autocratic regimes, at a greater risk for political upheaval. In 2006, Urdal predicted there would be an increased risk of political instability in Saudi Arabia because of an exponential increase of people entering the labor force over the next few years. de Soysa (2002) finds evidence in her study that indicates when per capita wealth in a population is low there is a greater risk of political conflict. Each of these studies support the position that population traits can affect the collective identity and behavior among a group.

Social structure characteristics contribute to public sentiment of the population allowing for the suppression of shared grievances or the intensification of these grievances among members of a society. Political institutions which restrict press freedoms and ignore human rights coupled with a shift in population characteristics create the potential for a resistant identity to develop among the population. Collective identities are therefore a result of population demographics and social structure characteristics.

Castells (2010) defines 'resistant identity' as: "collective resistance against otherwise unbearable oppression, usually on the basis of identities that were, apparently, clearly defined by history, geography, or biology" (p. 9). Once a population has adopted a resistant collective identity the process of lobbying for social change can begin. Motivating factors or a "credibility crisis" can move a collective group from resistant thought to social action. For example, the recent Arab Awakening started in Tunisia with the self-immolation of a local merchant which served as the motivational factor for an already resistant collective to transition into social action through political protests.

Mobilization occurs when a crowd adopts a resistant collective identity and has moved into social action because of some motivating factor. Mobilizing strategies allow participants to disseminate and collect information about the movement, recruit participants, and organize activities of the collective. The Internet can be an innovative mobilizing strategy for large scale social movements allowing a collective to organize and carry out the necessary actions to facilitate social change. As Internet usage increases and the ICTs which connect to it to actors become cheaper and more widely available, the information within it can be used to bolster support for cultural change from the population of a society and massification of information can be used to shift power from the hands of few to the hands of many. Actors operating both within

and outside of a social structure can affect change within by withholding or releasing information about structure itself.

There are three main points to collective identity transition theory:

1. Collective identity formation is a dynamic cyclical process dependent on population demographics and social structure characteristics.
2. Once a resistant collective identity is formed a motivating factor plays an integral role in moving a crowd into social action.
3. Mobilization strategies facilitate communication and organization and will allow a resistant collective to reach a project identity wherein the cycle can begin again.

Certain population traits and social environment characteristics will put a society at greater risk for political instability. Resistant collective identities form among marginalized groups which perceive mistreatment from a social institution in power, a motivational factor, or crisis, allows a collective to transition from resistant thought to social action and mobilizing strategies serving as a mechanism for information dissemination and activity organization.

## *2.9 Conclusion*

Can ICTs influence behavior among a population? The literature shows there may be a causal connection between population traits and social environment characteristics and political instability, but the recent literature on social media users during the Arab Awakening suggests the Internet may in fact influence thoughts and behavior (Salem & Mourtada, 2011; El-Shenawi, 2011; Gerkin, 2011). A thorough examination into the role of Internet in political protest must therefore control for population traits and social environment characteristics.

As research shows there is a greater risk for political instability in societies with autocratic regimes and limited media freedom (Przeworski & Limongi, 1997; Dahlgren, 2005;

Ortiz, 2007). The use of ICTs can increase instability because it allows geographically separated members of the population to spread information at a rapid speed. ICTs are recent phenomenon which has only been around for approximately two decades. However, researchers are still examining the full impact of these technologies on social action (Steinberg, 2004; Cammaerts, 2005; Salem & Mourtada, 2011). It is necessary to fully understand the role ICTs play in social life because that can have a serious impact on policy decisions.

The research questions to be addressed in this thesis are: is youth cohort size related to future political instability; is an educated public likely to increase political instability in autocratic regimes; does a weak economy increase political instability; do more media restrictive governments experience higher levels of political instability; is there higher usage of ICTs in media restrictive countries; and finally does ICT usage impact political stability.

## Chapter 3

### Method

Past research regarding political instability has been limited to specific government types, ignoring anocracies, or regions which include homogenous countries (Epstein et al., 2006; Przeworski & Limongi, 1997). Secondly, ICTs are a recent innovation and the relationship between them and population traits or environment has received little to no empirical research. Lastly, new social movement theory has incorporated collective identity into the theory based on past findings primarily from political science research, but as of the time of this study no empirical studies could be located to verify the relationship between collective identity and political protest.

#### 3.1 *Sample*

To address limitations in past research this study will examine 80 countries through a time series using the years 2000, 2005, and 2010 to examine changes over time in countries with varying levels of autocracy globally. The countries selected as the sample for this study include all Middle East and North African (MENA) countries as this is the region in which the Arab Awakening erupted. Other countries have also been added including all 30 Organisation for Economic Co-operation and Development (OECD) countries to compare different regime types. India and China have also been included because of their population size and regime type. Other countries were considered for inclusion, but data for all variables in all years was not available. The sample includes countries with differing regime types in varying geographic locations to provide generalizable results.

### *3.2 Data collection measures: dependent variable*

Protest events are a mechanism whereby resistant collective identities are manifested through social action, however current databases are limited in the time series covering protest events, most of which stop around 2005, or they do not contain all the countries in this study's sample. To address this methodological limitation the variable used in this study for collective identity is 'political stability', defined by the World Bank as "the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism" (World Bank, 2011). Data for this variable is from the most recent World Bank Governance Indicator (WGI) dataset 2011.

The World Bank collects data from various sources on six dimensions of governance: voice and accountability; political stability and violence; government effectiveness; regulatory quality; rules of law; and control of corruption. These indicators are combined and run through a statistical tool called unobserved component models (UCM) to obtain a "political stability estimate" (Kaufmann, Kraay, & Mastruzzi, 2010). The political stability estimate is a scale variable which ideally ranges from -2.5 – 2.5. The numbers may vary beyond the 2.5 and -2.5 range due to the imperfections in the actual data source from which the information is gathered (Marshall M., 2011). A categorical variable for political stability is also constructed through visual binning to group cases +/- 1 standard deviation from the sample mean. Cases are coded "1" = highly stable political system, "2" = moderately stable political system, "3" = low stability in political system, and "4" = extremely low political stability.

### *3.3 Data collection measures: independent variables*

The independent variables used in this analysis are youth cohort, secondary education enrollment, GDP per capita, unemployment rate, regime type, press freedom, and ICT usage.

The youth cohort variable, defined as the percentage of the population aged 15-24 relative to the total adult population is an estimate scale measure and the data is collected from the United Nations Population Information Network and the 15-19 and 20-24 aged cohorts are presented in thousands. A composite variable is constructed from these two age groups by adding the two age cohorts together, dividing by the total adult population (those aged 15 or older), and finally multiplying by 100 to yield a percentage scale variable that reflects the youth cohort percentage for each country.

$$YC/TP * 100 = \% \text{ of population between ages 15-24}$$

There is an additional youth cohort binary variable distinguishing between countries with a large youth bulge, coded as “0” = 19.9% or less youth cohort size proportional to the population and “1” = 20% or higher youth cohort proportional to the population.

The variable used to measure level of education within a country is secondary enrollment (high school education) rates. This variable is collected from the 2011 World Bank Database of WGI (world governance indicators) and the rate is reported as a scale variable reflecting percentage of the population enrolled at that level of education. The categorical variable for secondary education enrollment divides the variable into three quartile groups, “1” = 50% or less enrollment, “2” = 51% - 75% enrollment, and “3” = over 75% enrollment.

The economic variables include two measures, GDP and unemployment rate. All data for these variables is collected from the World Bank WDI dataset for the years 2000, 2005, and 2010. The GDP variable is the per capita GDP reported as a nominal variable in U.S. dollars. The categorical variable for GDP is broken down into three groups, “1” = 0 - \$3,000, “2” = \$3,001 - \$6,999, and “3” = \$7,000 or greater. Lastly, the unemployment rate reflects the total percentage of the labor force which is unemployed. Unemployment rate is also reflected in a

categorical variable based on the averages by regime type, “1” = 0 – 5%, “2” = 6 – 10%, and “3” = over 10% unemployment.

Polity examines specific regime type and serves to gauge the level of regime oppression present in a specific country. Autocracy is defined as the level of citizen allowed political participation and government sanctions against citizens who voice discontent with the incumbent government officials. Polity IV Project uses 6 component measures which document key traits of political competition, executive recruitment, and constraints on executive authority. The measure for polity is taken from the Polity IV dataset and is reported as a combined polity indicator. The polity variable is “a spectrum of governing authority that spans from fully institutionalized autocracies through mixed, or incoherent, authority regimes (termed "anocracies") to fully institutionalized democracies” (Polity IV Project, 2010).

The polity variable is “a spectrum of governing authority that spans from fully institutionalized autocracies through mixed, or incoherent, authority regimes (termed "anocracies") to fully institutionalized democracies” (Polity IV Project, 2010). The polity score is a scale variable coded from -10 (hereditary monarchy) to +10 (consolidated democracy). The Polity IV Project recommends converting polity scores into regime categories coded as follows: "autocracies" (-10 to -6), "anocracies" (-5 to +5 and the three special values: -66, -77, and -88), and "democracies" (+6 to +10), as suggested the polity variable is coded accordingly.

The press freedom variable is used as a measure of media censorship within a country. Data for this variable is collected from the *Freedom of the Press* index which assesses the degree of print, broadcast, and Internet freedom in every country in the world, analyzing the events of each calendar year and provides numerical rankings for each country based on the degree to which each country permits the free flow of news and information, the rankings are coded as

follows: free “index score of 0-30; partly free “index score of 31-60; and not free “index score of 61-100.” "Not Free." A new press freedom variable is constructed and coded “NF” = 0, “PF” = 1, “F” = 2.

A measure of ICT usage is necessary to examine potential relationships with political instability and add empirical evidence to the current body of knowledge regarding social networks and communication in the digital age. Given Silverstone, Hirsch, and Morley’s (1994) definition of ICTs the ICT variable for this study is a scale measure and is operationally defined as the level of mobile phone and internet penetration within a country. The data is reported as the number of mobile phone subscriptions per 100 inhabitants and number of Internet users per 100 inhabitants in country. Mobile phone subscriptions are categorized based on averages in the sample and are coded “1” = 0 – 25 subscriptions per 100 inhabitants, “2” = 26 – 50 subscriptions per 100 inhabitants, and “3” = over 50 subscriptions per 100 inhabitants. Internet users are categorized similarly and coded, “1” = 0 – 15 internet users per 100 inhabitants, “2” = 16 – 30 internet users per 100 inhabitants, and “3” = over 30 internet users per 100 inhabitants.

### *3.4 Analysis*

Initially a frequency analysis is needed for the dependent variable, political stability, for all three years (2000, 2005, and 2010) to determine if the data follows a normal distribution. Since the number in the sample is low (80) and the data is aggregated by country non-parametric tests should be used since it cannot be assumed the data is normally distributed.

Next descriptive data for all regime types, MENA countries, and Arab Awakening countries highlight differences in the independent and dependent variables. The descriptive data includes all independent variables for 2000 and political stability for 2005 and secondly, all independent variables for 2005 and political stability for 2010. A Kendall’s tau<sub>b</sub> correlation

matrix examines the statistical significance of all 2000/2005 independent variables on 2005/2010 political stability.

The first four research questions examine the relationship between population demographics and social structure characteristics as they relate to future political instability. Kendall's tau\_b correlation coefficients will yield the strength and directionality of any relationships between the 2000/2005 independent variables and 2005/2010 political instability variable, excluding the level of media freedom and controlling for regime type as these are the only nominal measures in the study. Once the relationships are identified, the statistically significant ones may be added as control measures when the ICT variables are examined.

The next research question addresses the role of media censorship in political instability. Simple descriptive data using the political stability means for 2000, 2005, and 2010 will be compiled by level of media freedom (not free, partially free, and free). The sixth research question, are there higher levels of ICT usage in more media restrictive governments, can benefit from the same descriptive mean comparison of the ICT variables by level of media freedom.

Finally, does ICT usage affect political stability? An ordinal regression shows the true relationship strength and directionality of ICT use and the other study variables on political stability.

## Chapter 4

### Data Analysis

A frequency analysis of political stability distribution among the sample cases showed the data was skewed to the right. Table 1 shows the change over time from 2000 to 2005 and from 2005 to 2010 for the dependent variable as well as the study variables. From 2000 to 2010 the means for unemployment, GDP per capita, and both information and communication technology (ICT) variables shifted considerably. The average GDP increased by \$2,472.31, but from 2005 to 2010 it dropped by \$1,938.06 on average. Cumulatively, the countries in this sample experienced an average increase of \$534.25 in a ten year period. Unemployment collectively increased by 1.65% from 2000 to 2005 and dropped 3.06% from 2005 to 2010 yielding a total drop of 1.41% in unemployment over a decade. Additionally, there was an exponential increase in ICT users averaging one hundred two users with mobile phone subscriptions and twenty-eight Internet users per one hundred inhabitants over the course of all study years.

Table 2 clearly shows the advantages of democracies over all other regime types. On average, in 2000 democracies had smaller youth cohorts (14.4%), almost 100% secondary education enrollment, the smallest unemployment rate after autocracies (7.62%), double GDP per capita over all other regime types (\$15,728.49), and exponentially higher ICT penetration rates. Democracies were also the only group to have a political stability in the positive. In contrast, Arab Awakening countries had a 20% youth cohort, over 10% unemployment, the

second lowest GDP at \$4,939.88 per capita, and some of the lowest ICT penetration rates among the sample (mobile phones: 7.53; Internet users: 2.51).

Table 1

*Changes in study variable means by year, 80 study countries*

	2000-2005	2005-2010
Youth Cohort %	+0.06%	-1.42%
Secondary Education Enrollment	+11.36%	+7.78%
Unemployment %	+1.65%	-3.06%
GDP per capita	\$2,472	-\$1,938
Mobile Phone Subscriptions (per 100 inhabitants)	+35.2	+66.67
Internet Users (per 100 inhabitants)	+7.6	+20.23
Political Stability	-0.1858	-0.1904

There are some noticeable changes in some of the study variables over the study period. For instance, as Table 3 reflects, secondary education increased by 5% in Middle East and North African (MENA) countries, 12% in Arab Awakening countries, and 20% in autocracies. There was also a slight increase in unemployment for MENA countries and an increase in GDP for all countries with democracies experiencing the largest increase to \$22,716.15. The most dramatic change happened with ICT penetration rates for mobile phone subscriptions and Internet users. Penetration rates in democracies doubled from 2000 to 2005; a four-fold increase in mobile phones and doubling of Internet users occurred in anocratic countries; in autocracies mobile phone subscriptions increased six-fold and Internet users quadrupled; a five-fold increase in mobile phone subscriptions and tripling of Internet users was seen in MENA countries; lastly, a

six-fold increase in mobile phone subscriptions and four-fold increase in Internet users occurred among Arab Awakening countries.

Tables 4 and 5 show the Kendall's tau<sub>b</sub> correlation matrix of the 2000 and 2005 study variables on future political stability. Table 4 shows all of the 2000 study variables, with the exception of unemployment, are significantly correlated ( $p < .001$ ) with 2005 political stability. Unemployment is also statistically significant ( $p < .05$ ) although it yielded the smallest correlation coefficient of  $-.216$ . The strongest correlations were between political stability and GDP per capita ( $.584$ ), Internet users ( $.581$ ), and mobile phone subscriptions ( $.568$ ). Furthermore, all study variables except for youth cohort size and unemployment were positively correlated to the dependent variable. Table 5 with the correlation matrix of 2005 study variables on the 2010 political stability reflected the same trends with the correlation coefficient between GDP and political stability increasing to  $.607$ .

Considering the relationship between press freedom and political stability Table 6 shows in countries with no press freedom the average political stability estimate for 2000 was  $-.732$  and fell to  $-.761$  by 2010. Conversely, countries with full press freedoms experienced more stable political systems in 2000 ( $.797$ ) but did see a slight drop to  $.671$  in 2010. Countries with partial press freedoms experienced a sharp drop in political stability from 2005 ( $-.495$ ) to 2010 ( $-.743$ ).

ICT penetration rates are shown by press freedom groups in Table 7. Rates doubled from 2000 (mobile phones:  $89.1$ ; Internet users:  $53.6$ ) to 2005 (mobile phones:  $49.7$ ; Internet users:  $25.3$ ) in countries with full press freedoms. While penetration rates for these countries with full press freedoms continued to increase the rates were less dramatic between 2005 and 2010

Table 2

*2000 independent variable/2005 dependent variable means by regime type, 80 study countries*

Variable	2000 variables/2005 political stability				
	Democracies	Anocracies	Autocracies	MENA	AA
Youth Cohort %	14.43%	20.10%	18.62%	19.92%	20.61%
Secondary Education Enrollment	101.41%	54.46%	68.47%	65.59%	69.78%
Unemployment %	7.62%	13.46%	6.89%	10.59%	10.83%
GDP per capita	\$15,728	\$2,613	\$7,027	\$6,991	\$4,939
Mobile Phone Subscriptions (per 100 inhabitants)	44.60	6.95	8.15	8.64	7.7=53
Internet Users (per 100 inhabitants)	22.46	4.05	3.17	3.55	2.51
Political Stability	0.4188	-0.4395	-0.5456	-0.5913	-0.5271

Table 3

*2005 independent variable/2010 dependent variable means by regime type, 80 study countries*

Variable	2005 variables/2010 political stability				
	Democracies	Anocracies	Autocracies	MENA	AA
Youth Cohort %	14.40%	20.43%	18.91%	20.01%	20.67%
Secondary Education Enrollment	96.79%	53.27%	90.12%	70.41%	81.14%
Unemployment %	7.21%	10.98%	6.31%	11.15%	12.49%
GDP per capita	\$22,716	\$3,366	\$12,830	\$10,011	\$7,412
Mobile Phone Subscriptions (per 100 inhabitants)	78.93	28.66	47.50	41.96	42.73
Internet Users (per 100 inhabitants)	43.91	10.56	13.11	10.75	10.11
Political Stability	0.2346	-0.5065	-0.1094	-0.8634	-0.7175

Table 4

*Kendall's tau\_b correlation matrix of 2000 study variables and 2005 political stability, 80 study countries*

	1	2	3	4	5	6	7
1. Political Stability (2005)							
2. ICT mobile phone subscriptions (2000)	.568**						
3. ICT Internet users (2000)	.581**	.706**					
4. Youth cohort % (2000)	-.489**	-.553**	-.559**				
5. Secondary enrollment (2000)	.507**	.560**	.598**	-.577**			
6. GDP per capita (2000)	.584**	.681**	.698**	-.538**	.558**		
7. Percent of labor force unemployed (2000)	-.216	-.205	-.226	.197	-.109	-.332**	

\*p < .01, \*\*p < .001

Table 5

*Kendall's tau\_b correlation matrix of 2005 study variables and 2010 political stability, 80 study countries*

	1	2	3	4	5	6	7
1. Political Stability (2010)							
2. ICT mobile phone subscriptions (2005)	.510**						
3. ICT Internet users (2005)	.572**	.607**					
4. Youth cohort % (2005)	-.490**	-.546**	-.580**				
5. Secondary enrollment (2005)	.537**	.506**	.578**	-.548**			
6. GDP per capita (2005)	.607**	.675**	.711**	-.592**	.637**		
7. Percent of labor force unemployed (2005)	-.236	-.164	-.277*	.202	-.139	-.302**	

\*p < .01, \*\*p < .001

Table 6

*Mean political stability by level of press freedom, 80 study countries*

	Political Stability		
	2000	2005	2010
Not Free	-.732 (n = 28)	-.779 (n = 25)	-.761 (n = 30)
Partially Free	-.307 (n = 16)	-.495 (n = 20)	-.743 (n = 17)
Free	.797 (n = 36)	.681 (n = 35)	.671 (n = 33)

compared to countries with partial to no press freedoms. Countries with partial press freedoms experienced a three-fold increase in mobile phone subscriptions and double the number of Internet users and penetration rates for both ICT variables doubled again between 2005 and 2010. Lastly, countries with no press freedoms saw a six-fold increase in mobile phone subscriptions and four-fold increase in Internet users from 2000 to 2005 and rates for each variable tripled between 2005 and 2010.

Some yearly data was missing from one or more variables in several cases which led to their exclusion from the final ordinal regression models yielding a final  $N = 62$  for model 1 and  $N = 65$  for model 2. Since the goodness-of-fit was considerably different between model 1 and 2 a diagnostic was run to exclude multi-collinearity among the independent variables in which the highest variance inflation rate was 4.2 indicating collinearity among the independent variables. This should not have an effect on the final ordinal regression. A further test for significance was done through an analysis of variance between the political stability groups for each independent variable and as the correlation matrices show all independent study variables were significantly correlated ( $p < .01$ ) to the dependent variable political stability.

Table 7

*Level of press freedom by mean ICT usage, 80 study countries*

	ICT Usage					
	2000		2005		2010	
	MP	IU	MP	IU	MP	IU
Not Free	5.4 (n = 28)	2.4 (n = 25)	30.2 (n = 25)	8.1 (n = 24)	89.8 (n = 30)	26.5 (n = 28)
Partially Free	12.6 (n = 16)	5 (n = 16)	41.8 (n = 20)	13.2 (n = 20)	88.5 (n = 17)	29.5 (n = 17)
Free	49.7 (n = 36)	25.3 (n = 36)	89.1 (n = 35)	53.6 (n = 35)	115.7 (n = 33)	73.5 (n = 33)

*Note:* MP = mobile phone subscriptions per 100 inhabitants; IU = Internet users per 100 inhabitants

Table 8 shows the ordinal logistic regression of the 2000 study variables on the 2005 dependent variable political stability (referred to as model 1) and the 2005 study variables on the 2010 independent variables political stability (referred to as model 2). Model 1 study variables on the 2005 dependent variable showed a logit model 1 fit ( $p < .001$ ) of 47.04 and model 2 fit ( $p < .001$ ) of 48.0. Both models produced statistically significant ( $p < .001$ ) log likelihoods (Model 1 = 57.52; Model 2 = 55.44) and an ICT group in each model was the only variable to be significantly ( $p < .05$ ) related to the dependent variable political stability. For model 1 internet user penetration rates of 0 to 15 users per 100 inhabitants showed to be statistically ( $p < .05$ ) connected to the dependent variable political stability. Countries with 0 – 15 internet users per 100 inhabitants were 2.2 times more likely to have a higher rate of political stability. In model 2 internet user penetration rates of 16 to 30 users per 100 inhabitants showed to be statistically ( $p < .05$ ) related to the dependent variable political stability. Again, countries with 16 – 30 internet users per 100 inhabitants were 2.6 times more likely to have a higher rate of political stability.

Table 8

*Logistic Ordinal Regression of youth cohort, GDP, education, and ICT variables on political stability, 80 study countries*

Variable	2000 variables/2005 Political Stability			2005 variables/2010 Political Stability		
	<i>n</i>	OR (Standard Error)	Wald	<i>n</i>	OR (Standard Error)	Wald
<i>Mobile Phone Subscriptions</i>						
0 - 25 subscription increase	33	1.33 (1.34)	.989	17	.309 (1.23)	.063
26 - 50 subscription increase	10	1.76 (.970)	3.28	7	1.31 (1.09)	1.43
Over 50 subscription increase	19	-	-	41	-	-
<i>Internet User Penetration</i>						
0 - 15 user increase	37	2.23 (1.13)	3.87*	27	2.28 (1.46)	2.419
16 - 30 user increase	13	.962 (.871)	1.22	6	2.63 (1.08)	6.00*
Over 30 user increase	12	-	-	32	-	-
<i>Youth Cohort%</i>	62	-.101 (.785)	.017	65	-1.08 (.790)	1.88
<i>GDP</i>	62	-.841 (.648)	1.68	65	-1.01 (.752)	1.81
<i>Education</i>	62	-.702 (.417)	2.84	65	-.670 (.506)	1.75
Cox and Snell		.532			.522	
Intercept only		104.56			103.44	
-2 log likelihood		57.52***			55.44***	
Model fit		$\chi^2 = 47.04***$			$\chi^2 = 48.0***$	

\*p < .05, \*\*p < .01, \*\*\*p < .001

## Chapter 5

### Discussion and Conclusion

#### *5.1 Results summary*

Interestingly the averages for the cases in this study showed an increase in GDP per capita, albeit a small increase, and an ultimate drop in unemployment of approximately 1.5%. The juxtaposition of these findings with the recent global recession illustrates how some countries have experienced harsher changes in the areas of economy and employment than others specifically those which are not democratic.

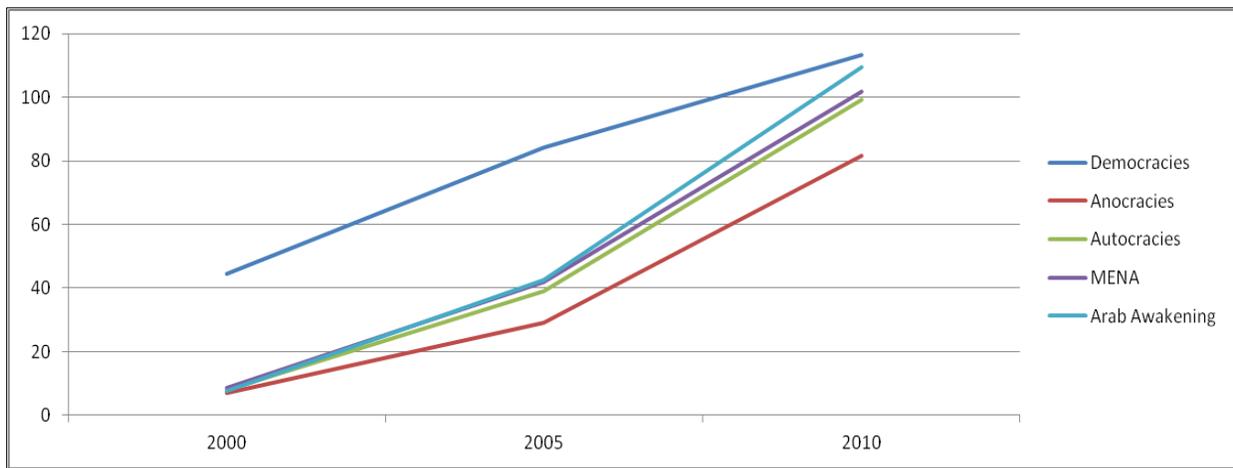
The averages by regime type also reveal some interesting trends starting with the average political stability among democracies. The average political stability for democracies in the sample was .4 and .2 respectively which was significantly less than the scale maximum of 2.5. The enrollments for secondary education reflect an interesting trend showing a drop in enrollment for democracies and anocracies but a 5 – 20% increase for autocracies and countries in the Middle East and North African (MENA) region.

The results from this study showed significant changes regarding mobile phone subscription and internet user penetration rates from 2000 to 2010. Figure 4 (p. 62) shows the change in mobile phone penetration rates by regime type. While democracies reflect a steady increase in penetration rates throughout the decade the rates for autocracies and anocracies reveal a sharp increase from 2005 to 2010. Additionally, the MENA region experienced a similar increase in penetration rates and countries which have experienced Arab Awakening protests saw the sharpest increase in mobile phone subscription penetration rates. Figure 5 (p. 62) likewise

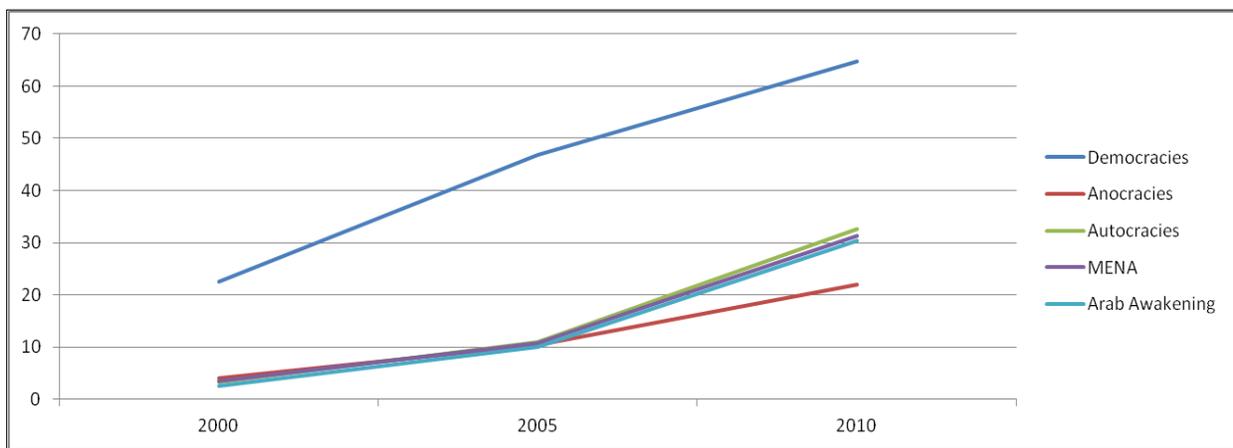
shows the same trend for internet user penetration rates. There was a smaller increase in internet user penetration rates compared to mobile phone penetration. Additionally, autocracies did not see the same penetration rates for internet users as they did for mobile phone subscriptions.

While the penetration rates for information and communication technologies (ICTs) were prevalent all over the globe the findings do not indicate they contribute to declining political stability. In fact, as penetration rates increase political stability is more likely to remain high.

**Figure 4.** Mobile phone subscription penetration rates by regime type 2000-2010



**Figure 5.** Internet user penetration rates by regime type 2000-2010



The findings show the population traits for anocracies reveal large youth cohort sizes and low secondary education enrollment and social environment characteristics reflecting low GDP per capita and high rates of unemployment. Therefore, anocratic countries are most at risk for political instability because of a large youth population, weak economy, and significantly high unemployment rates. About one-third of the countries which experienced Arab Awakening protests were considered to be autocratic consequently political stability in the region could be affected because of the traits shared among anocracies.

Of all the countries in the MENA region one democracy existed in 2005 and two in 2010 showing that many countries in this area have autocratic or anocratic governments which can be considerably oppressive with very few civil liberties and heavy-handed state-run media to control the flow of information to the population. Considering the recent events in Syria and Libya one begins to realize the lengths a government will go to in order to maintain power and control over a population.

The findings of this study do answer each initial research question. The results indicate youth cohort size is negatively related to political stability as predicted in past research (Goldstone, 2002; Huntington, 1991, Urdal, 2006). The correlation matrices show that when a country has a larger youth cohort a government is more likely to experience a decrease in political stability. Minute increases in youth cohort size did happen concurrently with drops in political stability showing there is some connection but directionality cannot be determined.

Secondary education enrollment did not have a negative effect on political stability for this study. The rates for secondary education enrollment did increase dramatically for autocracies and countries in the MENA region, but political stability estimates showed autocracies became more stable while countries in the MENA region became more unstable. The

correlations for both time periods did indicate a statistically significant ( $p < .001$ ) positive relationship between secondary education enrollment and political stability revealing a more educated population actually contributes to political stability. These findings are counterintuitive to media and scholarly speculation of education rates causing an increase in political instability. Since the political stability estimate did not show a similar trend among the differing regimes it does not support the idea education rates can destabilize a government but rather education facilitate a more stable political system.

Economy does not appear to solely have an effect on political stability. The difference in GDP per capita between anocracies and autocracies illustrates the lack of effect because anocratic countries had one-third less GDP per capita than autocracies, but almost similar political stability estimates. Simultaneously there was a statistically significant ( $p < .001$ ) positive correlation between GDP and political stability indicating that when GDP increases and political system is more stable and when GDP decreases so does political stability.

Among the independent variables only youth cohort size and GDP show a negative correlation with political stability which supports past research findings when youth cohort size increases conversely political stability decreases and when unemployment rises there is an increased chance of political instability. Secondary education enrollment and GDP shared a positive relationship with political stability, consequently when education enrollment increases so too does political stability and similarly when GDP increases a government is more likely to experience political stability.

Censorship does not seem to have an effect on political stability. For all three study years political stability decreased among all three categories of press freedom. The most dramatic decrease in political stability happened in countries with partial press freedoms between 2005

and 2010. The next largest drop in stability happened in countries with full press freedom between 2000 and 2005. Countries with no press freedoms experienced the smallest decrease in average political stability.

The findings did not show that media restrictions led to higher usage of mobile phones and internet, but countries with no press freedom did show the largest increases in penetration rates compared to countries with partial or free press freedom. Press freedoms were clearly related to regime type as more autocracies and anocracies have partial to no press freedom and had the highest increases in ICT penetration rates while democracies have partial to full press freedoms and experienced the lowest increases in penetration rates among this sample.

The ordinal regression for both models showed internet user penetration rates had a significant effect on maintaining political stability. While all independent variables were significantly ( $p < .001$ ) correlated with political stability it appears they do so collectively rather than individually.

## 5.2 Discussion

The findings of this study show the independent variables have a concomitant impact of political stability just as *Collective Identity Transition* specifies. The models for both study years did not show strong statistical relationships between the individual study variables and the dependent variable; however when the independent variables were included together in the model the overall effect of them was significantly ( $p < .001$ ) related to political stability, but individually they did not reflect statistical significance. These findings lend support to the integrated theory used in this study that population traits and social environment characteristics collectively can bring about a resistant collective identity. Contrary to recent political and scholarly speculation as to a single specific factor being primarily responsible for the falling

regimes it takes a coalescence of multiple factors in an environment already conducive for such social change to actually occur. Furthermore, a “crisis” event is needed to move a collective from resistant thought to resistant social action as in recent cases such as Egypt and Tunisia. “Crisis” events were not accounted for in this study, but observations of events that have emerged during the Arab Awakening lend support to the idea of “crisis” events acting as a catalyst to move a collective group from thought to social action. There was also no measure to account for religiosity or ideology which also affects overall population traits and social environment characteristics.

“Crisis” events did emerge prior to protest eruption in at least the first two Arab Awakening countries Tunisia and Egypt. On December 17, 2010 when Mohammed Bouazizi publicly set himself on fire at the local municipal building he set the country afire and ignited the resistant social action against a regime they already felt a resistant identity against. Fassin (2011) describes Bouazizi as “a victim of both structural and the political violence of the state. Facing this intolerable excess of violence, the powerless young man still had the power to expose his life and exhibit his suicide as a desperate act to save his dignity” (p. 282). This event would be a perceived crisis by Tunisian citizens that acted as a catalyst resulting in thousands of people protesting the lack of human rights treatment exhibited by the Tunisian government. When President Ben Ali resigned his post on January 14, 2011 the protesters involved in the movement realized their ultimate goal of ousting an oppressive leader and began to transition into a project identity.

The Egyptian protests of 2011 began on the heels of the Tunisian revolution just three days after President Ben Ali abdicated his presidency in Tunisia. Again these protests catalyzed as a result of self-immolation. On January 17 Ahmed el-Sayed set himself on fire in front of the

Cairo parliament building emulating the act of Bouazizi and three other men followed over a period of two days. By January 25 thousands had mobilized in several urban Egyptian cities, but Mubarrak had ample time to prepare for such a movement and the police force responded with severe levels of violence in an effort to quash the protest movement. After weeks of protest demonstrations and violent police attacks Mubarrak announced he would not seek re-election at the end of his term in September. The broadcast did little to stem the rising tide of anger at the president and protests intensified. By February 10 it was rumored Mubarrak was going to announce his resignation, but instead he delivered a defiant message stating he had no intention of relinquishing his position until his term ended. The number of demonstrators after hearing this message increased with the level of hostility directed at Mubarrak and he fled Cairo after which it was announced he had resigned his office and left the region.

Shared grievances against entrenched governments, shared collective identity, youth, weak economy, lack of political voice and civic freedoms, and repressive regimes were present in two or more political protests in the past. Two other factors present in each situation are a “crisis” event as a motivating factor followed by mobilization mechanisms. As the literature review of past research showed population traits and social environment characteristics influence political instability in a country.

George (2004) pointed out the potentiality for democratic “flowering” when new technologies are adopted and implemented. The findings of this study do show when press freedoms are limited in any way for a population people will find a way to seek out information. The highest increases in ICT penetration rates occurred in those countries which limited media in any way showing people want information even if a government tries to block access to that information. Anocratic and autocratic governments are typically the countries that limit media

output or rely altogether on a state-run media and those countries experienced the sharpest increases in penetration rates. These findings therefore lend support to George's (2004) conclusion.

This study does not show a direct singular link between the increased penetration of ICTs and weaker political stability, however, in conjunction with other factors (youth cohort size, GDP, education enrollment) ICTs did show a positive impact on maintaining political stability. In terms of real world application *iggression* does not exist. For decades the U.S. government has attempted to ignite political revolution in places such as Cuba and Libya to no avail. These cases are anecdotal, but they show concurrently with the findings of this study that domestic political change must come from within a country and not through the influence of foreign sources including ICT based ones.

The increased penetration rates for mobile phone subscriptions are much higher than the rates for internet users for primarily two reasons: mobile phones are cheap and easy to hide or dispose of in emergency situations and mobile phones can now connect users to the Internet. During the first decade of the new millennium mobile phones have allowed users to connect with each other through phone calls and text messages and as the decade progressed so did the capabilities of mobile phone technologies culminating in the implementation of Internet abilities on almost every mobile phone. Additionally, Internet users had to connect through an expensive and bulky computer while mobile phones became cheaper and easier to block identifying information. As regimes have increased censorship on new ICT technologies the ability to hide a user's identity has become more valuable.

The increase in use of ICTs may be a factor of youth. Young people are growing up in a world where they are constantly connected to a global communications network and as

Michaelson (1994) stated adoption of new innovations is more likely to occur among those in the same real-world social network. Therefore, youth can show older people in their social networks the benefits of using ICTs and consequently feeding into the increasing ICT penetration rates all over the world. The connection also extends to real life social networks as Lim (2008) pointed out close, strong social ties allow for the recruitment of participants in social movements and the dissemination of information. Just as youth may be function of the increase in ICT penetration rates, the increase of females into higher levels of education may be a function of the increased secondary education enrollment in anocratic and autocratic countries. Recent media stories highlighting the emergence of women in protest, politics, and increasing literacy rates in the Middle East are a reflection of the growing trend of females obtaining higher levels of education.

As the findings show population traits and social environment characteristics do not separately affect political stability, but as *Collective Identity Transition Theory* posits they do intertwine to create an environment conducive for resistant action as Smelser (1965) indicated. Ideology also plays a role in creating an environment conducive to political upheaval as shown anecdotally with the case of Iran in 1979. Ayatollah Khomeini was a cleric who spoke out in opposition to the Shah when he proposed a social reform program titled the “White Revolution” implemented to introduce land reform, inclusion of women in the election process, profit-sharing in industry, the sale of state-owned enterprises, and the nationalization of forests. The Shah exiled Khomeini in 1964 where he remained for fourteen years. Khomeini held on to relationships he had with elites still in Iran and was ultimately able to remove the Shah from power, return to Iran, and step into the role as leader. This is one of the only known cases in which an individual outside of a country’s borders was able to effectively cause the overthrow of a governing leader.

The findings from this study lend support to the notion ICTs help maintain political stability not influence political instability. The use of mobile phones and Internet is simply a mechanism by which individuals can share information and communicate their thoughts. Information sent through the Internet may have some influence on the development of resistant collective identity (i.e. thoughts), but they do not directly influence social action. The potential influence on resistant thought must be considered in conjunction with several other factors. Young people are more likely to use these new technologies and as the findings here indicate a population with a larger percentage of youth is more at risk to experience political destabilization. Hence, a larger portion of the population is using ICTs, learning new information, developing a resistant identity, and then passing along those ideas to member of their real-life social networks. Let us remember Lim's (2008) study signifying a shared political identity has a powerful influence over individual behavior in protest movements.

### *5.3 Study Limitations*

A primary limitation in this study as it examined ICTs in relation to political stability was the number of democracies included in the sample. Half the sample was comprised of countries considered democratic according to the Polity IV dataset and, altogether, democracies had higher rates of internet user penetration rates in combination with higher rates of political stability which could be a factor in the statistic significance in the ordinal regression. However, even though penetration rates were higher for democracies, the exponential increases in ICT penetration rates among non-democratic countries show only a slight weakening in political stability which is similar to the decreased political stability among democracies.

Another potential limitation exists in the political stability estimates. For this sample four countries transitioned from anocratic or autocratic regimes to democratic regimes over the course

of the study years yielding lower political stability estimates which were included in the overall average of political stability estimates for democracies. In the case of Pakistan there was a transition through each regime type over the decade starting with an autocracy in 2000, moving toward an anocracy in 2005, and finally a democracy in 2010. Over the course of the decade the political stability estimate actually decreased for Pakistan starting with -1.13 in 2000 and finishing at -2.70 in 2010. Although this is one case it does show the potentiality for a democracy to exist simultaneously with a high rate of political instability.

Ideology as a variable in resistant collective identity formation and political instability could not be measured in this study. The overthrow of the Shah Pavlavi in Iran in 1979 and the feminist movement in the MENA region show the role ideology plays in political stability, but no measure could be found to account for it in this study.

Another limitation in this study is the daily changes in political stability, government responses, and the implementation of new governments in the MENA region because of the Arab Awakening movement. During the process of this study dramatic shifts occurred in Syria, including the continuing efforts for removal of President Bashar al-Assad and the crack-down of the Syrian army on journalists, both foreign and domestic, and the citizens.

This study was conducted using a time order with independent variables preceding the dependent variable by five years. This period may be too long to show the actual relationship between the independent variables and political stability. Mobile phone subscriptions and internet users also increased exponentially during this time period which could skew the results. Additionally, ICTs impacted political stability in a positive way, but this could be a result of over half the sample being democracies which are in their nature more stable political systems.

#### *5.4 Future Implications*

This was an exploratory study in which political stability is used as a measure of resistant collective which lays the foundation for future studies to explore this concept further. Social movement organizers should note the ways in which information can be sent and accessed through digital devices like cell phones and computers. These new devices allow an exponential increase in the speed with which information can travel to recipients and facilitate in the collective gathering of a resistant crowd.

This study showed the ever increasing trend towards the use of ICTs globally which can be both positive and negative. World leaders must recognize the potentiality for these communications to create disruptions in their respective regions and consider the approach a regime might take when censoring media sources and police action regarding civil liberties and human rights. Human rights violations and harsh retribution for protest action can now be broadcast around the globe within minutes which could alienate other world leaders from supporting an overly oppressive or violent regime.

For democratic regimes interference in civil conflict must be considered carefully before employing resources and man power in these conflicts as one's media image can be corrupted quite easily in the digital age we currently live in. Non-democratic regimes may also find some valuable information from this study starting with the increased enrollment of citizens in higher levels of education. Political stability is benefited from increased education enrollment so it would be in a country's best interest to educate all citizens, male and female, for a longer period of time as it translates to long-term political stability.

Censorship over media and Internet information is directly connected with the increased use of technologies which allow the facilitation of information. Furthermore, non-democratic countries should realize the use of violence and censorship in response to a protest movement

can increase the intensity with which people will fight. Individuals feel they have nothing to lose when there is a violent backlash and so will find innovative and creative ways to get their message out. Recent YouTube videos of young girls shot by Iranian police illustrate this point. Most mobile phones now have cameras and video recording abilities and so anyone can broadcast a news story over the Internet and that story can go viral within hours meaning a spread to thousands of viewers, or more. The stories can garner support for the citizens experiencing violent repression of their government and distance world leaders from supporting the repressive regime.

The Arab Awakening movement and the response of each country which has experienced protests show the impact of a regime's reaction to protests on global perception of the situation specifically in the recent case of Syria. Syria has experienced a year-long civil battle with very violent and bloody backlash from the government which has created empathy for the citizens of Syria and disdain for the government which has reacted with such a shocking show of brutality

Lastly, the findings of this study do not support a need for control of information over the Internet as some world leaders may fear. *Igression* is highly unlikely given an increase in ICT penetration corresponds to an increase in political stability. "Crisis" events are a primary component in transitioning a resistant collective into social action and these events are more likely to come from within a country where their impact is personally felt rather than from an external source.

### *5.5 Conclusion*

The goal of this study was to examine the connection between ICTs and political stability. The findings showed GDP and youth cohort size cannot be excluded as effecting political stability, but it takes more than one shift in the population or social environment to

create a milieu conducive to political upheaval. This study shows there is substantive support for part of the *Collective Identity Transition* theory related to shift between legitimate and resistant collective identities.

This study is one of the first to use political stability as reflection of resistant collective identity. Ayoub (2010) states regime repression of protest events is a mechanism for maintaining social stability and political power (p. 466). He cites Huntington (1968) “the survival of the state depends upon maintaining domestic order and the containment of destabilizing political mobilization (2010, p. 467). Therefore, there is justification for the use of political stability as the dependent variable.

Future research should consider replicating this methodology presented in this study to add to the validity of the theoretical framework as well as creating new methodologies to test other areas of the theory and the use of political stability as a measure for resistant collective identity. Future studies should also include a measure of religiosity or another ideological variable to add to population traits and social environment characteristics. “Crisis” events should also be considered as a variable in the future to examine the time order of these events in relation to population traits and social environment characteristics. A measure for determining the breakdown of a population by class may also lend support to King Abdullah II of Jordan’s thoughts on how a larger middle class can create political transition.

## References

- Agre, P. E. (2002). Real-time politics: the Internet and the political process. *The Information Society, 18*, 311-331.
- Ayoub, P. (2010). Repressing protest: threat and weakness in the European context, 1975-1989. *Mobilization, 15* (4), 465-488.
- Ayres, J. M. (1999). From the streets to the Internet: the cyber-diffusion of contention. *The Annals of the American Academy of Political and Social Science, 566*, 132-143.
- Bennett, W. (2003). New media power: the Internet and global activism. In N. & Couldry, *Contesting Media Power* (pp. 137-150). Lanham: Rowman & Littlefield.
- Bilal, M. (2011, December 27). Al Jazeera Top 10 2011. Retrieved February 9, 2012, from Al Jazeera:  
<http://www.aljazeera.com/indepth/spotlight/aljazeeratop102011/2011/12/2011122619534967270.html>
- Cammaerts, B. (2005). ICT-usage among transnational social movements in the networked society-to organise, to mobilise and to debate. In R. Silverstone, *Media, technology, and everyday life in Europe: From information to communication* (pp. 53-72). Aldershot: Ashgate Publishing.
- Carty, V., & Onyett, J. (2006). Protest, cyberactivism, and new social movements: the reemergence of the peace movement post 9/11. *Social Movement Studies, 5* (3), 229-249.
- Castells, M. (2009). *Communication power*. New York: Oxford University Press.

- Castells, M. (2010). *The power of identity*. Malden: Wiley-Blackwell.
- Castells, M. (2000). *The rise of the network society*. Malden: Blackwell Publishers.
- Choney, S. (2010, February 2). 'Millennials' an always on, texting generation. Retrieved March 1, 2012, from MSNBC:  
[http://www.msnbc.msn.com/id/35545420/ns/technology\\_and\\_science-wireless/t/millennials-always-texting-generation/#](http://www.msnbc.msn.com/id/35545420/ns/technology_and_science-wireless/t/millennials-always-texting-generation/#)
- Dahlgren, P. (2005). The Internet, public spheres, and political communication: dispersion and deliberation. *Political Communication*, 22, 147-162.
- de Soysa, I. (2002). Paradise is a bazaar? Greed, creed, and governances in civil war, 1989-1999. *Journal of Peace Research*, 39 (4), 395-416.
- El-Shenawi, E. (2011, September). What comes first: the protest or the tweets. Retrieved October 17, 2011, from Al Arabiya:  
[http://english.alarabiya.net/save\\_print.php?print=1&cont\\_id170346](http://english.alarabiya.net/save_print.php?print=1&cont_id170346)
- Epstein, D. L., Bates, R., Goldstone, J., Kristensen, I., & O'Halloran, S. (2006). Democratic transitions. *American Journal of Political Science*, 50 (3), 551-569.
- Gates, S. (2001). Recruitment and allegiance: the microfoundations of rebellion. *The Journal of Conflict Resolution*, 46 (1), 111-130.
- George, C. (2004). Asian cyberactivism: freedom of expression and media censorship. *Asian Journal of Social Science*, 32 (3), 519-529.
- Gerkin, K. (2011). Word of click: social networking and the Arab Spring revolutions. Retrieved November 14, 2011, from Bad Subjects: <http://bad.eserver.org/issues/2011/Word-of-Click.html>

- Gjelten, T. (2010, September 23). Seeing the Internet as an 'information weapon'. Retrieved September 19, 2011, from NPR:  
<http://www.npr.org/templates/story/story.php?storyId=130052701>
- Goldstone, J. A. (2001). Demography, environment, and security: An overview. In M. Weiner, & S. Stanton-Russell, *Demography and National Security* (pp. 21-37). New York: Berghahn Books.
- Goldstone, J. A. (2011). Understanding the revolutions of 2011. *Foreign Affairs*, 90 (3), 8-16.
- Gottfredson, M., & Hirschi, T. (1990). *A general theory of crime*. Palo Alto: Stanford University Press, Inc.
- Green, A. M. (2011). What can we predict about Libya and the Arab Spring from statistical studies. *Statistics, Politics, and Policy*, 2 (1), 1-2.
- Hirschi, T. (1969). *Causes of delinquency*. Berkley: Univ of California Press.
- Hirschi, T., & Gottfredson, M. (1983). Age and explanation of crime. *American Journal of Sociology*, 89 (3), 552-584.
- Hoff, J., Hansen, H. K., & Bjerke, F. (2006). Introduction. In H. K. Hansen, & J. Hoff, *Digital Governance: Networked Societies Creating Authority, Community, and Identity in a Globalized World* (pp. 9-46). Frederiksberg: Samfundslitteratur Press.
- Hunt, S. A., Benford, R. D., & Snow, D. A. (1994). Identity fields: Framing processes and the social construction of movement identities. In E. Laraña, H. Johnston, & J. R. Gusfield, *New Social Movements* (pp. 185-208). Philadelphia: Temple University Press.
- Huntington, Samuel P. (1996). *The clash of civilizations and the remaking of world order*. New York: Simon & Schuster.

- Johnston, H., Laraña, E., & Gusfield, J. R. (1994). Identities, grievances, and new social movements. In E. Laraña, H. Johnston, & J. R. Gusfield, *New Social Movements* (pp. 3-35). Philadelphia: Temple University Press.
- Jordan, K. A. (2011, September 22). King Abdullah: Jordan needs 'stable middle class. (S. Inskip, Interviewer) National Public Radio.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). *The Worldwide Governance Indicators: Methodology and Analytical Issues*. Retrieved December 10, 2011, from The World Bank: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1682130](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130)
- Kneissl, K. (2011). Elements for a scientific analysis of the Arab revolutions in spring 2011. *AAS Working Papers in Social Anthropology*, 21, 1-17.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The people's choice: How the voter makes up his mind in a presidential campaign*. New York: Duell, Sloan, and Pearce.
- Lessig, L. (1999). *Code and other laws of cyberspace*. New York: Basic Books.
- Lia, B. (2005). *Globalisation and the future of terrorism: Patterns and predictions*. London: Routledge.
- Lim, C. (2008). Social networks and political participation: how do networks matter? *Social Forces*, 87 (2), 961-982.
- Marshall, M. G., Jaggers, K., & Gurr, T. R. (2011). *Systemic Peace*. Retrieved December 2, 2011, from Polity IV Project: Data User's Manual: <http://www.systemicpeace.org/inscr/p4manualv2010.pdf>
- McAdam, D., Tarrow, S., & Tilly, C. (2008). Methods for measuring mechanisms of contention. *Qualitative Sociology*, 31, 307-331.

- Melucci, A. (1980). The new social movements: a theoretical approach. *Social Science Information, 19* (2), 199-226.
- Michaelson, A. G. (1993). The development of a scientific specialty as diffusion through social relations: the case of role analysis. *Social Networks, 15*, 217-236.
- Ortiz, D. (2007). Confronting oppression with violence: inequality, military infrastructure and dissident repression. *Mobilization, 12* (3), 219-238.
- Oweis, K. Y. (2011, October 4). Syrian woman reported dead by Amnesty is alive: TV. Retrieved November 14, 2011, from Reuters:  
<http://www.reuters.com/article/2011/10/05/us-syria-woman-idUSTRE79405020111005>
- Pfaff, S. (1999, March). Explaining protest mobilization in repressive settings: lessons from East Germany's spontaneous revolution. Retrieved October 24, 2011, from UCLA, Department of Sociology, The Society for Comparative Research:  
<http://www.sscnet.ucla.edu/soc/groups/scr/pfaff.htm>
- Pichardo, N. A. (1997). New social movements: a critical review. *Annual Sociological Review, 23*, 411-430.
- Pinker, S. (2011, October 8). Punchline; human violence. *The Economist*, p. 102.
- Polletta, F., & Jasper, J. M. (2001). Collective identity and social movements. *Annual Sociological Review, 27*, 283-305.
- Poster, M. (1995). *Second media age*. Cambridge: Polity Press.
- Postill, J. (2008). Localizing the Internet beyond communities and networks. *New Media & Society, 10* (3), 413-431.

- Prakash, P. (2011, December 15). Invisible Censorship: How the Government Censors Without Being Seen. Retrieved March 1, 2012, from The centre for Internet & society: <http://www.cis-india.org/Internet-governance/invisible-censorship>
- Przeworski, A., Alvarez, M. E., Cheibub, J. A., & Limongi, F. (2000). Democracy and development. New York: Cambridge University Press.
- Salem, F., & Mourtada, R. (2011). Civil movements: the impact of Facebook and Twitter. Dubai: Arab Social Media Report: Dubai School of Government.
- Silverstone, R., Hirsch, E., & Morley, D. (1994). Information and communication technologies and the moral economy of the household. In R. Silverstone, & E. Hirsch, Consuming technologies: Media and information in domestic spaces (pp. 9-17). London: Routledge.
- Smelser, N. (1965). Theory of collective behavior. New York: Free Press.
- Snow, D. (2001, 10 01). Collective identity and expressive forms. Retrieved 11 28, 2011, from Center for the Study of Democracy: <http://escholarship.org/uc/item/2zn1t7bj>
- Stenberg, M. W. (2004). When politics go pop: on the intersections of popular and political culture and the case of Serbian student protests. *Social Movement Studies*, 3 (1), 3-29.
- The Economist. (2011, October 1). A plaything of powerful nations; who should run the Internet? *The Economist*, p. 64.
- The Economist. (2011, October 1). In praise of chaos; Internet governance. *The Economist*, p. 16.
- Tir, J., & Diehl, P. F. (1998). Demographic pressure and interstate conflict: linking population growth and density to militarized disputes and wars, 1930-89. *Journal of Peace Research*, 35 (3), 319-339.

- Touraine, A. (2000). A method for studying social actors. *Journal of World-Systems Research*, 3, 900-918.
- Touraine, A. (1977). *The self production of society*. Chicago: The University of Chicago Press.
- U.S. Census Bureau. (2011, October 13). State and County Quick Facts: Missouri. Retrieved November 14, 2011, from U.S. Census Bureau:  
<http://quickfacts.census.gov/qfd/states/29000.html>
- U.S. Department of State. (2011, July 1). Background Note: Germany. Retrieved October 31, 2011, from U.S. Department of State: <http://www.state.gov/r/pa/ei/bgn/3997.htm>
- Urdal, H. (2006). A clash of generations? Youth bulges and political violence. *International Studies Quarterly*, 50, 607-629.
- Warf, B. (2011). Myths, realities, and lessons of the Arab Spring. *The Arab World Geographer*, 14 (2), 166-168.
- Weimann, G. (2010). Terror on Facebook, Twitter, and Youtube. *Brown Journal of World Affairs*, 16 (2), 45-54.
- Wikipedia. (2012, February 9). Arab Spring. Retrieved February 9, 2012, from Wikipedia:  
[http://en.wikipedia.org/wiki/Arab\\_Spring](http://en.wikipedia.org/wiki/Arab_Spring)
- Winckler, O. (2002). The demographic dilemma of the Arab world: the employment aspect. *Journal of Contemporary History*, 37 (4), 617-636.
- Wright, Q. (1965). *A study of war*. Chicago: The University of Chicago Press.
- Zuckerman, E. (2010). Intermediary censorship. In R. Deibert, J. Palfrey, R. Rohozinski, & Zittrain, Access Controlled (pp. 71-85). Cambridge: The MIT Press.