ISCTE Business School
Instituto Universitário de Lisboa

Fueling the Revolution: Social Media's effect on Societal Revolutions

Marta Maria Khomko

Dissertation submitted as a partial requirement for the conferral of

Master in Marketing

Supervisor:

Prof. Rui Manuel Vinhas da Silva, ISCTE Business School, Departamento de Marketing, Operações e Gestão Geral

June 2015

ISCTE Business School
Instituto Universitário de Lisboa

Fueling the Revolution: Social Media's effect on Societal Revolutions

Marta Maria Khomko

Abstract

"When we change the way we communicate, we change society"- Clay Shirky.

The rise of social networking sites will play an increasingly important role in the formation of group identity and collective actions such as societal protests and Revolutions. The new use of social networking sites is a significant departure from static, solely profile based online platforms. Networks such as Facebook, Twitter, etc. are being utilized by thousands of individuals in an organized fashion to incite real social change.

The topic of this dissertation is social media's effect on social Revolutions. It focuses more specifically on the Ukrainian Revolution as it has received considerable attention and interest. For this reason this topic will be looked at from a marketing perspective to analyze how social media dispenses information and influences individuals to engage with the movement.

Drawing from McLuhan's media theory, social network and collective action theories, this dissertation argues that social networking sites impact societal revolutions by influencing protest attendance and information perception.

Key words: Social media, revolutions, social networks, social marketing

JEL Classification System: D74 (Conflict resolution), D71 (Social choice)

Resumo

"Quando mudamos o modo de comunicar, mudamos a sociedade"- Clay Shirky.

O avanço das redes sociais terá um papel cada vez mais importante no desenvolvimento da identidade de grupo e acções colectivas como protestos sociais e revoluções. O novo uso das redes sociais é um avanço significativo em relação às plataformas estáticas baseadas somente no perfil do utilizador. Redes como o Facebook, o Twitter, etc. estão a ser utilizadas por milhares de indivíduos de modo organizado para realmente incitar mudanças sociais.

O tema desta dissertação é o efeito que as redes sociais têm nas revoluções sociais. A mesma foca-se na Revolução Ucraniana, que captou considerável atenção e interesse mundial. Por este motivo, este tópico será analisado de uma perspectiva de marketing, para verificar como os meios sociais fornecem informação e influenciam os indivíduos a participar em movimentos.

É a partir da teoria mediática de McLuhan's, da rede social e das teorias de acção colectiva que esta dissertação se propõe a analisar o impacto que as redes sociais têm na revolução social, através da influência no activismo protestante e na divulgação de informação.

Palavras-chave: Meios sociais, revoluções, redes sociais, marketing social

Classificação Sistema JEL: D74 (Resolução de conflitos), D71 (Escolha social)

Acknowledgements

The completion of this dissertation signifies an important and critical stage in my life's journey. It could not have been possible without the help and support of professors, family and friends. I would like to take this opportunity to acknowledge and thank the people who have shared both the excitement and the stress during this process.

Let me begin by thanking Rui Manuel Vinhas da Silva, my thesis supervisor, who has helped guide and structure my ideas into a meaningful study. He has been a constant support throughout the writing of this dissertation.

Professor Kim Serota and Antonio Segalini should also be acknowledged for their advice and consultation.

However no obstacle can be overcome without the encouragement of family and friends. I am blessed to have friends who, despite being busy with their own lives, have always took the time to listen and encourage me. Raymond Robles and Jacob R. Wilson, thank you for days that you spent reading and discussing my work and for all your helpful suggestions.

Your constant confidence in me and my abilities has led me to pursue my biggest dreams.

I would like to express my gratitude to my family. My mom Oleksandara and my parents- in – law Marlene and Livio who have always encouraged me.

To my husband, Andrea Racano, who has been with me every day throughout this process and with whom I have shared both the lowest and the highest moments. Thank you for your unyielding love and constant motivation.

I cannot begin to express my gratitude to my grandparents, whose unconditional love, motivation and belief in me, has helped guide all of my life's decisions. To you I dedicate this dissertation.

Thank you all.

Table of Contents

List of Figures

List of Tables

Chapter 1

Historical Overview

This research paper will focus on social media and its effect on the Ukrainian Revolution, or the Revolution of Dignity, as it is called in Ukraine. On November 21st, 2013 the former President of Ukraine, Victor Yanukovych, elected not to sign the Ukraine European Union Association Agreement, instead the parliament began pushing for stronger ties with Russia by joining, the Russian Federation backed, Eurasian Customs Union. This decision caused an uproar among the Ukrainian people, many of whom wished for closer ties with the EU. The first protest took place in Kiev that evening. Social media websites were flooded with messages such as "we're going to the Maidan, who's coming with us?" (Johann, 2014). Facebook groups and pages called Euromaidan were quickly set up in support of the protests and hashtags such as #euromaidan could be seen everywhere on social networks according to the news website Global Voices (Talaga, 2014).

Some credit the spontaneous burst of the revolution, and its increased presence in the social media sites, to a single Facebook post on the page of Mustafa Nayem, a journalist working for a Ukrainian newspaper. He posted a seemingly simple statement that related to the overall feeling of the population thus stirring people into action. His post read as follows "Come on guys, let's be serious. If you really want to do something, don't just 'like' this post. Write that you are ready, and we can try to start something" (Nayem, 2014). His later posts asked for people to gather in Kiev's central square thus starting the spark that ignited the fire.

Throughout November thousands more people joined the growing protest, scared that no change would come if they left, people camped outside for days waiting for real change to take place, tent villages sprang up in the middle of the biggest square in Kiev, now called

Euromaidan. Euromaidan got its name from a merging of two words, European and Maidan, which means public square in Ukrainian.

Since its creation the official Euromaidan Facebook page, which was created with the help of journalists and activists alike, accumulated more than 100,000 members and became the fastest growing page within Ukraine's social networking sites (Kapliuk, 2013). It also helped organize hundreds of solidarity movements around the world. People gathered to protest in front of embassies, European organizations, and public squares to show their support for the Ukrainian people and their outrage about what was occurring. "Ukrainians from around 46 cities in 22 countries, including the U.S., Canada, Portugal, Switzerland, Sweden, Poland and others already expressed their support to Ukraine" (Goncharova, 2013). From these movements other pages such as Euromaidan London, Euromaidan USA, and others were organized in order to post news (often in the local language of the country) and coordinate both events and smaller scale protests. The movements, although happening sometimes on opposite sides of the world, brought more attention, news coverage and a greater social media presence, all of which helped unite people.

Early December saw more than 800,000 people on the streets in Kiev, occupying the city hall and the Square (BBC News, 2014).The breaking point came on December 17, 2013 when the former President made a deal with Russian President Vladimir Putin, to buy 15 billion of Ukrainian debt and lower gas prices. This was the decision that brought light to the intentions of the Ukrainian government, and a blunt confirmation that the efforts of the Ukrainian public thus far were not reaping any results.

While the government was signing deals, individuals such as journalists and protest attendees were often subjected to instances of brutality and unjust treatment by the police, all of which spread through social media to further fuel the public's anger. Unlike the previous movements which stood behind political parties, this one distinguished itself through organization, self-regulation, and rejection of political symbols. This movement was purely a people's movement ruled by the tools that were available to the public, including social media.

On January 15, tensions rose once again when the Ukrainian Parliament declared an anti-protest law, banning all the practices used on Euromaidan, such as wearing face masks and helmets, setting up tents, speakers, and facilities. This was the point of no return, the public saw the true colors of the dictatorship that was in power. This change of the events turned the protests violent. Protesters were arrested, beaten, humiliated and the first deaths were reported. Social media during this time was circulating independent content, first-hand accounts from people on the Maidan, videos, and pictures confirming the devastating truth of police action against the public. Content was spread via Facebook, the Ukrainian social networking site Vkontakte, Twitter, YouTube and independent news sources.

Research done by PHD candidates from NY University showed that the amount of likes, shares and comments on the Euromaidan Facebook group increased during major incidents in the Revolution, especially during increased violence days (Barbera & Metzger, 2014).

February 20, 2014, was the deadliest day, known as Bloody Thursday, since the movement began. Eighty eight or more peaceful protesters were killed by government snipers and special forces in less than 48 hours. Statements of support, anger, sadness and determination via posts flooded social media websites, networking sites, and news. Posts showing the violence against the protesters on the streets of Kiev spread online, many protesters gave personal accounts on what was happening, along with often distributing and shocking pictures and videos. The events that were made public by the information outpour forced the government to finally acknowledge that this movement was not going to give up.

Initially the social media was used to share information, news and personal stories as well as organizing meetings however "as tension escalated, the online communities were used for mobilizing readers during dispersal attempts and helping those who were hurt in clashes with security forces" (Lyushnevskay, 2014).The social networking media sites still acted as a discussion and news platform however now they were being utilized to take direct action to aid individuals, to support the movement, to take to the streets stronger than before.

On February 22, the former Ukrainian President, Viktor Yanukovych fled the country and the protesters took charge of buildings belonging to the presidential administration. The movement

has won, and although the conflict in Ukraine is still raging, the actions of thousands of young protesters accomplished what they set out to do, the old government was over and closer relations with Europe were again in the sight of the Ukrainian people.

Chapter 2

Literature Review

2.1 Summary

Communication plays a crucial role in marketing and is the basis for the analysis of how media and social media is used to bring value to consumers, companies, and society as a whole.

The emergence of social networks, as a new form of communication both in western societies and in struggling economies has brought on a great transformation to the way individuals and communities interact. The digital era broke the boundaries that restrained the flow of communication. Technology has evolved to allow individuals and companies to communicate in more personal and creative ways. Often in marketing, communication is directed towards the consumer, the result of which is a potential sale. However marketing is not only focused on sales. Recently there has been more exposure on a relatively new idea known as social marketing. Kotler and Zaltman described social marketing as being different from other forms of marketing only in terms of the objectives. Social marketing is aimed at benefiting the overall society and not the marketer (Weinreich, n.d.).

Social media opens contact with large groups of like-minded people. Individuals use marketing techniques in the overall interest of society as a whole. This phenomena has the ability to influence many situations. One example of this could be seen through the organic or "green" movement that forced many companies to become more environmentally conscious.

This thesis will show how the power of using new and improved communication tools, and collective action can change the world. Existing movements and action groups have already successfully used the Internet as a mass communication medium to reach greater, global

audiences (Postmes & Brunsting, 2002). The topic will focus around societal revolutions, in particular the Ukrainian Revolution that has recently been in the center of the media.

The literature review will provide a strong theoretical base for the study. When dissected, the idea of individuals organizing and using the internet to start effective revolutions, is composed of two equal parts. First, one must look at media as a whole, paying special focus to social media, and how it evolved to be utilized in this manner. For this McLuhan's Media theory will be depicted and analyzed. The second section of this thesis will review how and why people organize into well founded groups. The theories of collective action and social network will give a deeper insight into this subject and as a finishing touch the three theories will be brought together to form a new research with an aim to explain this growing phenomena.

Marshall McLuhan is said to have predicted the emergence of the World Wide Web, long before its arrival. He was a pioneer in the field of media theory. In his book, *The Gutenberg Galaxy*, McLuhan foresaw the near future of new media.

> The next medium, whatever it is – it may be the extension of consciousness – will include television as its content, not as its environment, and will transform television into an art form. A computer as a research and communication instrument could enhance retrieval, obsolesce mass library organization, retrieve the individual's encyclopedic function and flip it into a private line to speedily tailored data of a saleable kind (McLuhan, 1962).

Media theory is a term that has many variations but ultimately it is the study of mass media and its effects on the actions and behavior of the population. Dan Laughey, a researcher of media theory, described it as "a systematic way of thinking about means of communication" (Laughey, n.d.). These might be communication tools such as light or smoke that have been used historically when no other way of communication was possible, or more modern means such as today's digital technologies (Laughey, n.d.). Although media theory took its roots before the information age, it showcases trends that are relevant to modern day. Electronic technology today is reshaping and restructuring not only the patterns of our social interdependence but also the aspects of our personal life. It is forcing us to reconsider and re-evaluate our thoughts and

actions. Everything is changing and it's changing dramatically (McLuhan & Lapham, 1944). Today, people meet and form relationships online, shop and write reviews online, talk with companies and other consumers online, share ideas, pictures, statuses and their life with a global audience.

Media theory goes hand in hand with another field of study known as Media Ecology. Media ecology and the research behind it allows for a better understanding of the impact and implication of past and present day media. Media ecology looks at communication systems as a biological environment. Lance Starte, the founder of Media Ecology Association, defined it as such "It is the study of media environments, the idea that technology and techniques, modes of information and codes of communication play a leading role in human affairs." (Strate, 2003).

This field of study centers on many communication mediums, from the printing press, to photography, radio, telephone and the newer technological advances such as electronic media including the World Wide Web. For the purpose of this research the later forms of communication, such as the internet, will be looked at.

Marshall McLuhan's views on media and especially his, now world famous, phrase the "medium is the message" and the term "global village" are two ideas that have fundamentally changed the way we view media today. He was the first to acknowledge the medium through which a message is transmitted instead of focusing only on the message being sent.

The research presented here will focus on how the medium could affect the way people view and perceive the message. There is a visible tie between the use of a certain mediums such as the internet or social media and actions such as societal protests. Often it is seen that protesters choose to use a more open and less controlled medium, rather than mass media such as TV or public radio.

After exploring media and its effects, it's important to look at the other factors that influence social uprisings such as individual's ability to form connections or networks, and to act as a whole. The two underlying theories that provide the groundwork for this research are the social network theory and the collective social action theory.

The social network theory uses mathematical models to study the complexity of the structure of human interactions. Albert-Laszlo Barabási is one of the leaders in the research of network theory. Barabási acknowledges that science is only now starting to uncover the fundamental complexity of networks that dominate all aspects of our world to a much greater degree than most people recognize. Networks "…will drive the fundamental questions that form our view of the world in the coming era" (Barabási, 2002).

Network theory is applied to analyze how people interact and form connections among one another. However, to take it a step further, this paper will also look at collective social action theory. It is established on the research which explores the reasoning behind how people organize themselves and act together to achieve a purpose.

Similarly to McLuhan's media theory, collective action theory was also developed before the digital age, however its bases are widely used to explain collective action online, also known as cyber collective action, and especially in social media. Social media facilitates a platform on which individuals can share their outlooks and opinions on various events, news, and other information in a vast social network. Collective actions form as a result of the diffusion of these different opinions (Agarwal, Lim, & Wigand, 2011).

Clay Shirky, a writer, teacher and consultant on the effects of the internet, has done research to study how the internet effects collective action. "Collective action, where a group act as a whole, is even more complex than collaborative production, but here again new tools give life to new forms of action." (Shirky, 2009).

Social movements which are organized through online channels, can and should be analyzed from a sociological and technological perspective. Human actions are complex and cannot be explored through only one form of study. Media theory, network theory, and collective social action theory are pivotal in understanding all the attributes of human interactions on the web.

Marketing, as mentioned above, can be viewed in many ways, but the theories, such as the ones that will be discussed, have always been central in the field of marketing. This dissertation will look, from a different perspective, at the term "marketing" but nevertheless it still encompasses

theories and ideas that are fundamental in the study and can be easily interpreted and used in a more corporate setting.

2.2 Media Ecology

To begin on media ecology, one must realize that "media" has been around since the beginning of men and it has evolved continually and progressively over the years. The communication time line (Fang, 1997) displayed in table 2.1 summarizes human's most historically significant mile stones in communication technologies that laid the groundwork for the studies such as media ecology and media theory.

Throughout the ages humans have been communicating with each other using various channels and improving these channels along the way. Communication mediums have always been transforming our environment. The study of media ecology looks into how all forms of communication affect society's understanding, attitudes, and human value and how our use of media simplifies or impedes our daily lives and ultimately our survival (Postman, n.d.).

Table 2.1 Progression of communication technology

200 BC	Tipoa gazettes circulated Chinese officials
600	First books printed (China)
1450	Newspapers available (Europe)
1792	Long distance telegraph (semaphore) invented in France
1843	First fax machine is patented
1876	Alexander Graham Bell patents the electric telephone.
1894	Wireless television is invented
1901	First cross Atlantic radio signal is sent
1931	First television is broadcasted (USA)
1944	Computers put into Public service. Information Age begins.
1951	Computers sold commercially
1969	The first Internet began
1979	First cell phone communication started (Japan)
1994	Control of the internet is released by the USA government. WWW is born.

Neil Postman is often known to be the one who coined the concept "media ecology". The meaning comes from a biological metaphor, in which a medium is a substance where a culture grows. This phrase modified gives us the fundamental definition of media ecology "A medium is a technology within which a culture grows" (Postman, 2000).

Postman credits his intellectual rival, Marshall McLuhan, with the discovery of the study of media. Postman himself had a rather gloomy outlook on technology and became a leading critic of media and especially electronic media, such as television and later internet. In his book *Technopoly: The surrender of the Culture to Technology*, he explained that individuals accept technology too easily, without criticizing it, and we allow it to penetrate every sector of our lives, and govern all human activity (Strate, 2003). He was often noted comparing technology to a novel by Aldous Huxley, *The Brave New World*. Huxley feared the truth would be drowned

in a sea of irrelevance and that what we loved would ruin us. There is a possibility that Huxley was right (Postman, 2005). One example that Postman makes to strengthen his case against the good effects of media is that of the "Iranian Hostage Crisis". He claimed that television does not inform its viewers but rather provides flimsy news that influence the opinions of the viewers. He claims that even though Americans think that they know everything about the event taking place, in reality they just know what they see on TV and nothing more. Instead of having opinions, their feelings can be more accurately referred to as emotions, which would account for the constant change from one day to the next. Television is altering the meaning of being informed by creating information that more properly should be called disinformation (Postman, 2005).

All forms of media have advantages and disadvantages, and no one can say for sure that one form is better than another, however Postman stresses the point that " ...In this important sphere of humanity's development we have a clear case of one medium that assists it and of another that undermines it" (Postman, 2000). His views on media can be seen as true even today, given that many people feel that they are informed about a situation by only watching the news or reading an article on a blog. With the availability of the internet this fact is starting to change, with the amount of information available, people can choose what they want to watch, listen, or read. With these options comes a greater desire for real information and for legitimate sources.

Another revolutionary thinker, who needs to be mentioned when discussing communication theory is Harold Innis, a Canadian professor known for his extensive contributions to communication theory. His views on communication theory focus on the application of time and space to media. Innis believed that social change can arise from the development and better understanding of media (Soules, n.d.-b). Innis saw the relationship between the creation and survival of the greatest empires and the strategic importance of that communication medium. His work highlighted these ideas (Tremblay, 2012).

The research on the effect of time and space on the dissemination of ideas and knowledge through a communication medium, will lead to a thorough understanding of its influence in our cultural setting.

The idea behind the time and space perspective on the communication theory is that all media are bias to time and space (Tremblay, 2012). Empires and societies are biased in their dissemination of knowledge. Dissemination is better suited over time when the medium is durable and heavy, such as stone, which is not suited for transportation, because of its weight or size. Dissemination over space is favorable when the medium is easily transportable and light such as paper. The emphasis on either time or space will signify a bias of importance to the culture in which it is embedded (Innis, 1999).

One example Innis provides are papyrus and stone. Papyrus is light and portable in scrolls, it does not cost a lot to produce it from plants, and it can be easily written upon. However, papyrus deteriorates quickly and is, therefore, biased towards spanning communication across space. By contrast, carvings in stone last for centuries, however they are often expensive to produce and extremely time-consuming for the writer. They are difficult to transport over long distances. So, as papyrus is biased towards space, stone is biased towards time (Chesher, 2008).

A communication medium's capability to control space (or territory) is a necessary prerequisite to increasing control over time, however in some circumstances, similar attempts may result in a decline in the capacity to control time (Comor, 2001). Innis's main concern was present mindedness. He saw this expressed in and broadcasted by the popular press in its emphasis on sensationalism and the transient. He thought the balance between space and time had been disturbed in favor of spatial dimension "with disastrous consequences to Western civilization" (Cox, 1995).

It needs to be said that the summery of Innis's work is vastly over simplistic, however for the purpose of this research only a brief overview is needed to then later relate its significance to more modern studies. Innis's analysis of the relationship between communication technologies and cultural change only extended until the age of newsprint and radio. The first commercial computers were becoming operational towards the end of Innis's life (Chesher, 2008). Although

the research and discoveries of Harold Innis come before the first computers came into existence, his work to this day remains relevant even in the digital era.

It is probable to say that the internet is the media of today, although it may seem that the internet has always been here, it is still considered a new form of media. It is a vastly different medium through which we now communicate. The most innovative feature of the internet is that it is not centrally controlled. Telecommunications used to be indistinguishable since the intelligence in a network had to be centralized. Internet allows messages to be self-directed, independent, with information winding their way to a given address helped along by the intelligence in the individual computers through which they pass (Frost, 2003).

Using Innis's methodology, scholars have analyzed the internet using what is now being coined as the "The Innisian approach". This approach to the internet, however, seems a pessimistic one. Judging from Innis's other works the internet would be considered to have a strong space bias, due to its high reach, in other words, its ability to travel or be "portable" and its lack of durability since the messages and information sent using the web can be easily destroyed or deleted. It embodies other fears that Innis had as well, such as its moral implications. Impertinence and information excess are two of the greatest and most fearful trends of the internet (Frost, 2003). With the amount of information available people seldom take the time to distinguish between information sources, decisions become less thought out and much quicker, and face to face communication is greatly reduced. Because of modern media such as the internet, societies around the globe are becoming obsessed with "immediate concerns and individual needs" (Comor, 2001). As an outcome of this it might be assumed that the conclusion that Innis would come to would be that modern day technology will cause an imbalance in the space and time. He went as far as predicting that the Internet will make our society less livable, and may result in our civilization not being able to prevent its own demise (Frost, 2003).

These assumptions are not all valid since Innis was not able to analyze the internet in its full potential. As the internet grows and evolves, people are taking time to read material that is valuable to them, to search for news, make decisions based on deep research using this same technology. Most of all they communicate amongst themselves, organize themselves and

ultimately act against the injustices. The internet allows people to take action in their own hands and away from corporate entities. As of today, Harold Innis's prophesy is proving untrue in many ways.

2.3 McLuhan's Media Theory

It goes without saying that when discussing communication theory one must acknowledge the theories and accomplishments of Marshall McLuhan. McLuhan is a more recent philosopher of communication theory and although his inspiration comes largely from the above discussed Harold Adam Innis, his ideas are fresher and are more easily related to today's society.

His two major contributions that have revolutionized the topic of communication are "Medium is the Message" and "The Global Village". Marshall McLuhan's theories are based in Media Ecology studies however are often referred to as McLuhan's Media Theory.

Marshall McLuhan believed that the medium through which a message is received played a vital role in its effect on society and individuals, and should be studied in hand with the content it is carrying. He was one of the first writers to bring forth attention to the presence of communication tools, "...their characteristics, and how they work, rather than just to the messages these technologies transmitted" (Tremblay, 2012). In his book *Understanding Media: The Extensions of Man* he wrote that a medium is an extension of ourselves.

> This is merely to say that the personal and social consequences of any medium-- that is, of any extension of ourselves -- result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology (McLuhan, 1964).

To view media as an extension of ourselves is to realize that media is affecting all aspects of our lives. McLuhan states that electronic technology is reshaping and ultimately "disrupting" our lives not only our individual lives but other aspects just as our family, jobs, organizations and government (Tremblay, 2012).

He points out that the content which the medium is transmitting often blinds the receiver to the importance of the medium itself, to illustrate his point he gives an example of IBM.

It is predictable that the content of a certain medium will blind us to the characteristics and character of the actual medium. McLuhan also makes a point to say that many companies such as IBM, are realizing that they are not only in the business of material production but that they are in a business of information processing which greatly changes their vision for the future. (McLuhan, & Lapham, 1994) The medium creates an environment that holds organizational, symbolic and technological aspects that can prove to be more important than the content that they are disseminating (Barichello & Carvalho, 2013).

McLuhan's ideas were way ahead of his time and can be adopted to the modern social media or modern media in general. The internet and the websites that it contains are all separate mediums. Similar websites such as Facebook or Twitter are considered different mediums. Each of these mediums transmits a unique message, taken apart from the content.

Email, Facebook and Twitter, these three mediums greatly differ in the kind of information that we transmit through them. It is visible that the medium changes the language, and it recreates the subject and the content. For example, Twitter allows its users a maximum of 140 characters thus forcing people to write captivating short messages in order to get the attention of a certain audience. This website is meant to grip and hold our short attention span (Goodman, 2011). Facebook allows up to 60,000 characters plus pictures and videos. Email allows us to write everything from short messages to letters. Looking at the type of messages being sent we can see that the medium changes the content and people are aware of this.

McLuhan's theory on communication is still widely used by marketers today and remains relevant to the field of both communication as well as marketing. Marketers know that using the same message through different media channels can elicit a different response from their consumers (Goodman, 2011). That is why companies use website ads, TV, radio, and print to showcase their ads depending on the audience they are trying to attract.

Another groundbreaking term that has been coined by Marshall McLuhan is "the global village". The idea that new technologies make it possible for people all around the globe to be

connected, to become our so called neighbors, in a way that we can share information with them and listen in on their conversations. The world would hence become a village. As McLuhan said "The new electronic interdependence recreates the world in the image of a global village" (McLuhan, 1962).

McLuhan predicted that media are going to become a part of our everyday lives, intertwined with everything we do. He mentioned a time when all the messages or news would be readily available to everyone. Such events as a queen getting married or an earthquake on the other side of the world will be transmitted to everyone (Popova, n.d.).

Today this idea is often being used to describe the internet and its ability to bring people together around the world, to facilitate relationships between people who have never met and to transmit news and information within seconds around the globe. The Internet, like no other communication medium, has given a "globalized" dimension to the world. It has become the universal source of information for millions of people. Internet is used at work, in school and at home (http://www.internetworldstats.com/emarketing.htm). The world changed from a largely one-way communication media to a many-to-many communication due to the internet, making the term "global village" even more relevant. Through the internet's many websites, individuals have the freedom to share alternative views on international events. News websites around the world such as Le Monde Diplomatique in France, and independent media sources such as Alternet, Indymedia, and Al-Jazeera are dedicated to providing an objective view on the events while also offering new perspectives that often seem to escape the mass media (Soules, n.d. -b). Websites with user generated content, especially social networking sites, and blogs facilitate a platform where people of different backgrounds are able to share their opinions on a grander and more public scale.

This type of interactivity brings vast advantages and disadvantages (Laughey, 2009). As might be foreseen, "We shall be able to communicate with one another instantly, irrespective of distance" (Kennedy, 1926), said Nicholas Tesla, already in 1926. However such communication also allows for the quick and seemingly much easier organization of people. In recent years the public engagement with the Internet has been used by a wide range of activists

and groups in social and political protests. The Internet potentially has the power to facilitate mobilization and participation in national street demonstrations, but also to give the protests a more international character by effectively and rapidly diffusing communication and mobilization efforts (Laer & Aelst, 2010).

Marshall McLuhan's ideas were ahead of his time and his most significant works were published in 1960's and 70's, today he still remains relevant and his theories on communication relate to the topic of this dissertation and its marketing perspective. Communication evolution has been significant and rapid but nowadays communication no longer means broadcasting information to the people, but the people are using it for their own purposes. The public creates content, disseminates it, likes it, and shares it. In the Information age "we encounter new shapes and structures of human interdependence which are oral in form even when the components of the situation may be non-verbal" (McLuhan, 1962).

Media ecology and McLuhan's views on communication theory strive to find the connection between technology and its cultural effects. It is clear that there is an undeniable relation between the two. When studying communication one must do so within a moral and ethical context. Many scholars on communication theory could scarcely write a word about technology without mentioning its humanistic consequences (Postman, 2000). That is why when studying marketing or communication one must notice how it impacts society, culture and humanity. Social protests are a primary example of how technology is enabling people to change their own futures and societies for the better, using technological advances in communication mediums.

2.3.1 Criticism of McLuhan and Media Ecology

Despite the fact that Marshall McLuhan's theories make up the basis of any communication studies and research, his ideas are still widely questioned and criticized. His critics find fault with his writing style, his unorganized representation of materials, the underdevelopment of his argument and his lack of traditional scholarly terminology (Meyrowitz, 2001). One of most

known critics was Raymond Williams. Williams was the first to claim that McLuhan was a technological determinist.

Technological determinism was a critique of not only McLuhan himself but of the media ecology in general. The main idea behind the term is a lack of ability to account for the workings of power, political economy, institutional organization, and everyday life (Shaw, 1999).

Technological determinists depict technology and more specifically communications technologies as the groundwork of society (Chandler, 1995). They believe that technologies from print to electronic "changed society" on personal, institutional, political, and economic levels (Chandler, 1995).

In the book *Television technology and social form*, Raymond Williams describes McLuhan's theories as ideological, without consideration for other questions and uses for the medium. He goes on further to compare social theory to that of an aesthetic theory and claim that the theory of media is only a deeper development of many other fields (Williams, 2003), implying it was not an original idea.

Williams claims that referring to the medium as the cause, is to reduce all other things such as culture and society to its effects. Other criticism of media ecology and especially of McLuhan's view on communication theory include the complete denial of content being of any importance. This is of course not true, since media ecology merely puts content in its place, which is secondary to the medium itself (Strate, 2008). One of the harshest critics on this point is an Italian semiotician who said in an interview that McLuhan's view on communication theory might work for TV but does not translate to the Internet. TV, unlike the net, reduces all information to the fact of its own existence, (Marshall, 1997) but the internet enables people to search and receive information that they deem valuable.

Through the criticisms, media ecology remains a strong study and Marshall McLuhan's works still remain in print and his name still warrants inclusions in text books on "media theory" (Jones, 1998). In an interview McLuhan responded to his critics by saying that "The central purpose of all my work is to convey this message, that by understanding media as they extend man, we gain a measure of control over them" (Next Nature, 2009). McLuhan wrote on a "cusp

of a postmodern turn in cultural analysis" (Wasser, 1998) and that is why he remains relevant, because in an age where technology is improving and changing everyday it is important to study how it effects the population and how societies may use these new developments for their own purposes.

2.4 Social Network Theory

The social network theory looks at the relationships people have among each other in a network rather than analyzing individual characteristics. The term social network came to life in 1954 in a study done by John A. Barnes which looked at a Norwegian village and its interactions. Barnes set out to study the social organization of a simple society, with an aim at comprehending all the various ways in which the members of that society systematically interacted with one another (Barnes, 1954).

The image of a social network resembles "a set of points some of which are joined by lines. The points of the image are people, or sometimes groups, and the lines indicate which people interact with each other" (Barnes, 1954). Social life in general could be represented by this network idea. Social networks, although first discovered studying local communities and the lives of villagers, can be applied to anything from our daily lives to something as vast as the internet. The theory can be interpreted in many ways and perspectives, it has often been analyzed through mathematical models, but also from an economic, and a sociological point of view. Social networks are often used to improve marketing techniques, for example marketers use word of mouth marketing to be more credible and trusted by their target market. Marketing is based on the interactions and relationships that people have amongst one another, they are crucial for the dissemination of ideas especially in one type of marketing: Word of mouth. Social network theory is necessary for the analysis of the topic of this dissertation. Social revolutions are based on the relationships and networks that are formed both online and offline and through various social media.

Stanley Milgram was the next researcher to make a claim that would surprise the world in 1967. His experiment studied the paths between two random individuals, or the length between two nodes in a network. The study took individuals who did not know each other and analyzed how many intermediaries, or acquaintances it took for the two people to contact one another thus employing the "the small world method". The result concluded with sixty-four chains reaching the target person. Within this group the mean number of intermediaries between starters and targets is 5.2 (Travers & Milgram, 1969). This means that it took only five or, if rounded up, six intermediaries to form a connection between random people. The theory became known as the "Six degrees of separation".

Milgram's study was done only in the USA and used standard mail. In order to prove the validity of his theory today a similar study was conducted by Microsoft's research team which looked at electronic conversations, through an insta-messaging database, of 240 million people worldwide. This was the first time such a global scale study of social networks was done (Smith, 2008). The results were not far off from the 1967 study. It showed that a random pair of nodes in the Messenger network is 6.6 hops apart on average, which is half a link longer than the length measured by Travers and Milgram (Leskovec & Horvitz, 2008).

The implications of these studies are colossal. They are the building blocks of a new research being used by marketers, economists, and others to understand the impact of human connections. Today, social-network research involves mining digital data sets to further understand collective behavior online. Some of the findings show that acquaintances, also known as "weak ties" in sociology, are the best sources for job tips, since they are in slightly different social worlds than close friends, because of which they might see opportunities you or your close friends do not (Lohr, 2012). But the implication can go further than just job tips. "Researchers can see patterns of influence and peaks in communication on a particular subject by following trending hash tags on Twitter, for example" (Lohr, 2012). Social media is a window into the behavior of millions of people.

The strategic factor that is connecting this research to the modern social media is the importance of "weak ties". Mark Granovetter, an American sociologist and a recognized researcher in the

network theory has expanded on the idea of weak ties and their effects on the diffusion of information, influence and mobilization. The strength of a tie refers to a combination of characteristics such as the emotional intensity, amount of time put into a relationship, level of disclosure and reciprocal services (Granovetter, 1973). Among some of the things that Granovetter focused on was the effect weak ties have on community organization and why some communities are able to organize themselves to accomplish common goals and others cannot mobilize even in a threatening situation (Granovetter, 1973). The findings show that it is difficult for individuals with weak ties to organize or be part of political movements. Membership in movements or organizations with specific goals usually results from being recruited by friends. The problem is that without weak ties the recruitment will consist of members of one or two social cliques but will not be diffused further, beyond the clique. As a result there will not be enough momentum to reach the general population (Granovetter, 1983).

The topic of cyber revolutions is very relevant to the studies done by Granovetter. Modern day revolutions and organizational protests are often organized and spread through social networks, which validates Granovetter's study. Social networks such as Facebook and Twitter are based mostly on weak tie relationships. Twitter is a site used to follow people or companies and Facebook is a way to keep up with people, the majority of which are acquaintances (Gladwell, 2010). Social media is not the cause of social revolutions, however they create an environment where relationships can be formed among weak ties. These relationships give more exposure and quicker diffusion to the information being shared, whether it is a cooking recipe, a funny picture, or information that would ultimately lead to an organized protest and possibly a revolution.

Albert-Laszlo Barabási is a foremost writer on the theory of social networks. His numerous works analyze the networks formed on the internet and their implications. Improving on the research of two mathematicians, Albert-Laszlo Barabási, discovered a new type of network structure called "free scale". Scale free networks are formed from a variety of complex systems. It works on the basis of nodes and hubs. Hubs are nodes with a high degree of connections to other nodes. Some nodes have multiple connections to others, however most nodes have just a

few connections to other nodes in the network. The most popular nodes can have up to a million of links. From that it appears that the network has no scale (Barabási, 2003).

On a mission to map the World Wide Web, Barabási and his team discovered, despite their assumptions, that the World Wide Web is actually a scale free network. Millions of pages available online but only a few are highly connected and they are holding the WWW together (Barabási, 2003).

His study showed that most (more than 80 percent) of the web pages have less than 4 links, however a tiny portion of the net (less than 0.01 percent) had over 1,000 links (Barabási, 2003). Most of such hubs are Google and Yahoo that allow people to connect to other pages, websites, and find links. These finding also suggest that the scale free networks are extremely robust against failures. The reason is there are many more nodes, such as a link to a website on Google, than hubs and a random removal of nodes will most likely just effect the small scale hubs, with only a few links, without harming the structure of the network (Barabási, 2003). Barabasi's work showed that networks are numerous, from organic networks to mechanical and technological, and can be used in a variety of ways to help society in different fields. Much research has been done to map and come up with mathematical models for the social network theory (Barabási, 2009). It is known that networks such as the hardware of the internet, the sites and documents that make up the World Wide Web and other key scientific interests are of a scale-free nature. There is a great significance to the knowledge of this theory and its relation to the modern world.

The book *Network Science* by Albert Barabási mentions how the government uses the network theory to capture terrorists in Iraq, by reconstructing Saddam Hussein's inner circle network, or how modern medicine is able to predict and stop the spread of viruses (Barabási, n.d.). The social media such as Google, Facebook and Twitter are all based on a complex system of social networks.

An important study of interest is the correlation between network theory and online social networks. A research study (Backstrom, Huttenlocher, Kleinberg, & Lan, 2006) analyzed group formation in large social networks and the effect it had on communities by looking at

LiveJournal. Their findings showed that community growth and the rate at which individuals joined a certain organization depended on the amount of friends an individual has in that community and how their friends connected to others in the community. "Joining probability increases as the density of linkage increases among the individual's friends in the community" (Backstrom et al., 2006). This could correlate to Granovetter's study of weak links (Backstrom et al., 2006) and their importance to the spread of information. Increase in linkages between friends, of a certain individual, results in greater amount of weak ties being formed, once the individual joins a social network.

Research measuring social media sites such as YouTube, Flickr, LiveJournal and Orkut also proved the Barabási scale free network structure of most of the social media, aside from YouTube. "..high-degree nodes have a tendency to connect to other high degree nodes in a social network to form a core" (Mislove, Marcon, Gummadi, Druschel, & Bhattacharjee, 2007). YouTube is not a scale free network due to a small amount of highly popular users that are connected to many less popular users (Mislove et al., 2007). This study was performed in 2006, and although the structure of the internet and most social media remains fairly consistent, the purpose of social media and the uses of the internet are rapidly changing and being adjusted to the needs of modern society. Therefore the results of these studies could have other implication in today's time.

The study "Structure and Evolution of Online Social Networks" (Kumar, Novak, & Tomkins, 2006) classified members of a social network into three categories; *singletons*, *non-active nodes*, who despite having joined the network have not made any connections, *giant component*, who are connected to a large group within the network through direct and indirect connections, and the *middle region*, which is composed of small isolated communities that connect with each other but fail to connect with the larger portion of the network (Kumar et al., 2006).

This study concluded that people join networks in one of two ways; either they actively seek out the network or they are invited by a friend. Individuals in isolated communities are more driven by migrating, and continuing an off line relationship, while their more popular

counterparts, such as those in the giant component, are driven by preservation and evolution of the network (Kumar et al., 2006).

This research can be used to better understand how networks are formed and how their actions can be transmitted into an offline setting. SNS (social networking sites) such as Facebook or Twitter offer options to "suggest" friends, making it easier for individuals to join the site and connect with others, thus forming more ties. "Networks are at the heart of some of the most revolutionary technologies of the 21st century, empowering everything from Google to Facebook, CISCO, and Twitter" (Barabási, n.d.).

Online social networks offer an insight into many marketing strategies as well. Twitter, YouTube and Facebook are already incorporating product ads and word of mouth marketing, in hopes of persuading the population to act a certain way. Studying the structure of these networks may help improve the understanding of online campaigning and viral marketing, political campaigns, and electoral influence (Mislove et al., 2007).

2.4.1 Diffusion

Diffusion is a large component of social network theory. According to Everett Rogers, a communication scholar, it is the process by which an innovation is communicated through certain channels, over time among the members of a social system. Innovation has been the center of diffusion studies for many years. Recent research has started to focus on the field of social movements, to understand why information spreads a certain way, at different speeds and through different channels. Social movements are not self-contained and do not occur in isolated events but are rather built upon previous events or movements and influence each other through their effects on the larger environment (Meyer & Whittier, 1994). An example of this could be seen by looking at the Civil Right Movement in the 1960's, which began as bus boycotts and sit-ins. The movement was later revived by freedom rides (Meyer & Whittier, 1994), to be further fueled by demonstrations and finally riots (Oliver & Myers, 1998).

Seeing or hearing about other social movements on the mass media channels inspires people to protest the injustices in their countries. Social media serves as an alternative method of information diffusion (Andrews & Biggs, 2006). Social networks are what drives diffusion and social media enables that diffusion to spread faster over larger areas. An analysis of the diffusion of sit in's in the 1960's by Andrews and Biggs (2006) reached a conclusion that "the main channel of diffusion was the media" (Andrews & Biggs, 2006). The movement was able to gain momentum because African Americans watched sit ins happening in other parts of the country and were inspired to participate. They usually learned of such reports from the news or radio (Andrews, 2006). These studies have implications today since social movements are happening all around the world from USA to Egypt, to Ukraine. Television and social media are constantly showing new boycotts, riots and protests. Movements come in waves, meaning there are moments where there is more social turmoil and times when there is more peace. In recent history this can be seen in the 1960's with the peace movement that spread through the world, the 1980's pro-democracy movements (Oliver & Myers, 1998) and even today's wave of anti-capitalism movements, set out to take down unjust and corrupt world leaders. Meyer and Whittier (1994) analyzed "movement spillover", where one movement indirectly influences a different social movement. The 1960's peace movement was indirectly affected by the women's movement happening during the same time period. The research states that during a period of widespread upheaval, highly mobilized challenges feed off each other and can cross over to other movements thus blurring the lines between the two (Meyer & Whittier, 1994). This is applicable to protests happening in the same country or states, it is less probable when movements are happening over thousands of miles and across oceans, as they are today. The possibility that activists from Egypt will cross over and influence a movement in the US or Ukraine is highly unlikely. However what is pertinent to today's society is the way that media coverage affects the diffusion of movements. Seeing uprisings happening in other countries could motivate people to take actions in their own societies. "If riot diffusion is to occur, information about recent riots must be transmitted, and the nature of the communication process will define both the communication network and the form of the diffusion process" (Myers, 2000).

Before the invention of the internet information was mostly spread via word of mouth, later the telegraph, then the telephone, newspapers, radio and most recently TV. The internet provides a new format for information dissemination, users have access to uncensored information from a variety of sources. Along with the still remaining media such as TV and radio, people are now able to see the "full picture" of what is happening in the world. The internet has three ways of impacting the mobilization of a social protest.

1. Its usefulness in the organization and logistics of movements and protests, a way for different groups to network.

2. Internet allows for the direct expression of opinions.

3. It enables information dissemination and allows the public to be sensitized to the issues that are rarely or mildly covered by mass media. This reinforces collective identities of the participants (Porta & Mosca, 2005).

The diffusion of social protests is greatly helped by the use of the internet by the participants. They are not only diffusing the information but also the idea of social uprisings, and in this way they encourage or inspire others to take up the cause.

2.4.2 Criticism of Social Network Theory

Network theory has been employed in fields of economics, biology, sociology and many others. But within the social science circles, there has been much criticism of the theory. One of the most persistent critiques states that social network analysis does not have a proper or extensive theoretical base. It is often referred to as a strategy, rather than theory, that does not include formal laws, correlations or propositions (Emirbayer & Goodwin, 1994). It does not have a structural form but rather a variety of work and efforts done by multiple persons in different fields of study (Burt, 1980) without a proper structure or organizational form.

Network theory is also highly critiqued for its lack of acknowledgment of antecedents of networks. The primary focus of the research has been to study the effect and consequences of

social networks, (Borgatti, Mehra, Brass, & Labianca, 2009) however the focus on the development of the network is often neglected.

Network analysis, although mathematical in nature, is part of social sciences. It has been highly scrutinized by scholars in the field of social science for its weak consideration of human agency and cultural aspect as well as the underlining faults of its structural system (Emirbayer & Goodwin, 1994). Mathematical models cannot fully explain the underlying factor of why networks happen, "rather they are methods of describing relations among actors" (Burt, 1980). Often network analyses do not account for individual motives, but rather look at the social structures. They group people with similar attributes and norms into social categories with complete disregard for individual involvement in structured social relationships (Wellman, 1983).

Despite all the criticism, network analysis needs to be thought of as a whole and not as parts of various theories, techniques and methods (Wellman, 1983). Social network analysis has proposed new ways to look at social structures, posed questions that sociologist have not asked before and provided answers supported by constantly updated empirical work and rational methods (Wellman, 1983). Overall it gave us an extended look into a variety of different networks and communities and a deeper understanding of the relationships that happen within such networks.

Social network theory along with diffusion studies make up a great portion in understanding what drives social movements. The next section will discuss how social networks are being used in collective action.

2.4.3 Social network's effect on Collective Action

The theory of collective action was first discovered and published by Mancur Olsen in 1965. In its early form, the theory was concerned with public goods and groups. Over the years researchers have used the theory to explain a variety of other topics. Recently more thought has been given to the connection of collective action and network theory in hopes of bringing more

attention to how they relate to social movements. It comes as no surprise that social relations or networks affect people's decision to participate in collective actions. The way that networks affect collective action has been a focus of various studies. Networks refer not only to the relationships between people, but can also refer to groups, organizations, websites, internet, etc. McAdams, a leader in the studies of social movements, having analyzed the Freedom Summer of 1964, found that having a supportive network gives individuals the needed "pull" to take part in activism for a strongly held belief (McAdam, 1986). A research study (Snow, Zurcher, & Olson, 1980) found that although individuals might have certain views and opinions making them more susceptible to joining an activist organization, it would not matter without a recruitment agent. Their findings suggest that social networks and their variables are of equal importance to the predispositions of the people in the "determination of differential recruitment" (Snow et al., 1980). Analysis by Gerlach (2001) on social movements from a network perspective found that the organization of social movements consist of a segmentary, polycentric, and integrated network (SPIN). Segmentary networks are formed by many diverse groups, polycentric networks follow and are often influenced many multiple leaders, and lastly integrated which are composed of multiple links through common activities (Gerlach, 2001). Multiple types of networks are needed when organizing and sustaining a social movement. Before the advancement of communication technology, networks consisted of people sharing information among their friends, family, and acquaintances and mostly through community organizations. Opp and Gern (1993), state that networks such as that of a church organizations can work to mobilize activists. Looking at East Germany during May and October in 1989, they derived that "personal networks were the most important contexts for mobilizing citizens" (Opp & Gern, 1993). Networks in coordination with incentives such as political discontent and other less influential factors were what caused people to gather. Networks such as a church group that would meet every Monday provided individuals with an incentive to gather at a certain time and place. These incentives and networks created the conditions for collective action that later grew into a revolution (Opp & Gern, 1993). Later, the communication technologies allowed for a more rapid dissemination of ideas that could be seen through self-organized newspapers, pamphlets, radio talks, in order to extend the reach to a wider audience. Networks

are used to coordinate joint action in a movement as well as allow for free information and idea exchange. "Networks do not have a defined limit but rather expand or contract as groups interact or part ways" (Gerlach, 2001).

Today, information exchange happens within minutes, crossing boundaries is no longer an obstacle. The network structure that was present in the movements organized in the 1960's or before and the movements happening today remain vital and consistent. Social networks are an intricate part in the formation of collective action, and social demonstrations. Florence Passy (2003) lists three ways that networks intervene in individual participation of social actions. First they construct identities, by solidifying an individual's ideals and "establish cultural proximity with a specific political contention" (Passy, 2003). Second, networks connect potential participants to the social movements through social ties and recruiters. Finally networks allow individuals to decide on their level of participation and the intensity of their actions (Passy, 2003).

In modern society social networks are greatly aided by the internet which is a network in itself. In the next section research will be presented to showcase how social media and the internet influence collective action.

2.5 Collective Action and the Online Environment

Collective action can be defined at its simplest form as a group of people with common interests acting to further these interests (Olson, 1965). The problem arises when individuals with personal interests seek to maximize their own objectives, which will hence not benefit the interests of the whole group. However, during this dissertation, attention will be focused on groups acting together for a specific cause and how this can be achieved more efficiently by using computer technologies such as the internet. "Collective action, by the sheer fact of its existence, represents in its very form and models of organization a message broadcast to the rest of society" (Melucci, 1996).

Although collective action is a message in itself, internet and social media are able to diffuse this message even further. The speed and exposure that the internet is able to provide to collective action will affect its life span and its ability to have a greater impact.

Tish Stringer (2001) brought forth examples of how independent media centers are helping information dissemination in some of the mass mobilization movements. In September, 2000, thousands of activists gathered on the streets around the world to protest anti-globalization, but more specifically they opposed the IMF and the World Bank. The center of the protests was in Prague where a meeting of these organizations was organized. To show solidarity with the movement, thousands of others gathered on the streets around the world. This was made possible because of a networked organization and the tools provided by the World Wide Web. During the protests, an independent media center was formed, which broadcasted information and established a networking space for the participants through the website (praha.indymedia.org). The site, which was operated both by participants and over 500 journalists, reached its popularity peak at 1 million hits for the week of the protest activities (Stringer, 2001). The website provided video, audio and print information along with interviews, live chat with activists from the central location, instant updates, and narratives that could be uploaded by the public and which would be available online throughout the world (Stringer, 2001). A network was to thank for the coordination of the movement. The communication tools mentioned above are of great value to the network structure, mobilization and organization of the people. Communication tools also impact other spheres such as business. It is important to understand that even though this dissertation focuses on social movements, the ideas, theories and conclusions stated here can be applied to a variety of other studies but especially to commercial marketing.

Collective Action has always faced difficulties, however the utilization of online tools, that are readily available today, could help curb these obstacles. Collective action relies heavily on communication and organization and therefore these factors face the most problems. Attempts to locate, contact, motivate and coordinate potential participants is not an easy effort, which becomes more difficult when you have to persuade participants to remain involved despite risks and setbacks (Bimber, Flanagin, & Stohl, 2005).

Judith Donath (2007) identifies social networking sites as signs that the world is entering a time of the social "supernet", an ability to maintain an extensive network. Social networks aid collective action through a few points, the primary being that the SNS (social network sites) facilitate relationships between both weak and strong ties. "The stronger ties bring reliability to the profile, and a large set of weaker ties expands the scale and scope of the network" (Donath, 2007). SNS make it easier to connect users, many of whom are not known to each other, and thus bringing more people to the cause. Such connections are then transferred into offline relationships and collective action. Research done by Harlow and Harp (2012), showed that virtual connections can actuate offline relationships. The study went further to discuss that SNS also promote public discussions, political activism and bring exposure to protests and activities concerning social movements (Harlow & Harp, 2012). Providing more information about certain actions, having a constant flow of content concerning movements and protests, encourages motivation between participants.

An example of how the internet aids in collective behavior can be seen in the 1997 experiment of a unique "smart" neighborhood, Netville, outside of Toronto, Canada. Netville was used for the analysis of internet's effect on community life (Hampton & Wellman, 2003). During this time the debate was largely against Internet, many believed Internet's presence in a local community would weaken face to face communication and diminish community ties. Even an online chat with friends could only serve as a limp substitute for meeting friends over coffee (Stoll, 1995). However Hampton and Wellman's (2003) study proved otherwise, one of the more surprising results showed that community members were using the internet to organize events and community gathering offline. This was a way for them to get the message out to more people in a "low cost and immediate way" (Hampton & Wellman, 2003). Their efforts extended further, the Netville community used the net to manage discussions, encourage interaction and organize two protests, one concerning the housing developer and a political protest against the telecommunication company (Wellman & Hampton, 1999).

"Wired residents invariably started and organized the protests, but they were joined by some non-wired residents as well" (Hampton & Wellman, 2003). The evidence gathered from this experiment laid the groundwork for future theories on community and online space. As the

study showed even in the beginning phases of the internet, before the appearance of social networking sites, people have used it to organize themselves. With the improvement and constant advancement of this communication tool, it is reasonable to hypothesize that organization and collective action online are stronger now than they were in the 1990's.

The use of diffusion to propel collective action is aided by the communication tools, media and the internet. Diffusion takes many distinct routes. One of the routes is non-relational this method diffuses information through impersonal channels such as mass media and internet communications, among people with few personal connections (Tarrow & McAdam, 2005). Research by Tarrow (2005) brings about the idea that internet in today's society is a major tool in non-relational diffusion method. It had proven to be a major aid in the 1994 Zapista movement in the South of Mexico, during which the freedom of press and media were constrained by the government forces. During this time, relevant information was spread through independent websites, press and email. This was crucial to the success of the movement.

"New forms of organization are being created that bring people together in transnational campaigns and coalitions." (Tarrow, 2005). Individuals and communities benefit from online connections, networks and contacts that the internet facilitates. With internet, the speed of organization and coordination increases largely due to the effortless transmission of messages, the reduced cost of communication and the open access to information. But perhaps its biggest advantage is the ability to bring geographically dispersed people into a connected environment thus solving the problem of mobilization (Diani, 2000).

2.6 Evolution of social media and SNS

There have been many discrepancies and discussions on how to properly define social media without confusing it with other similar concepts such as user generated content or Web 2.0 (Kaplan & Haenlein, 2010). Social media is the combination of the two aforementioned

concepts. It uses the Web 2.0 as a platform to create websites, or other forms of electronic communication. On these platforms users create and share their ideas, information, concepts, and content, better known as user generated content. It is a free and open space for individuals to share their lives with one another.

Social media include, but are not limited to, blogs, content websites, such as independent news or Wikipedia and video sharing websites like YouTube.

One of the biggest part of social media are SNS, these sites can be defined based on three things, (1) the platforms allow the individual to have a public profile, (2) individuals must have access to other users with whom they can connect with, (3) they must be able to view and develop their connections and the connections made by others within the platform (boyd & Ellison, 2008).

Social media was on a steady rise up until a few years ago when the internet saw a great spike in social media and SNS. AOL was one of the pioneers in social media, the site offered users the ability to make profiles where they could list details about themselves and connect with their friends via the messenger option and some may argue that communities were formed between users. In 1997 a website called SixDegrees.com was formed, which closely resembled the modern day SNS. The website allowed users to build their own personal profiles, create and browse their friends list and organize groups (boyd & Ellison, 2008).

The real burst in SNS came in 2002 with Friendster, then later in 2003 with LinkedIn and Myspace and in 2004, the now world famous, Facebook was launched, followed by the 2005 launch of YouTube and the 2006 release of Twitter. These social networking sites are the most known, as of today. All of these sites revolve around a profile based platform and have features that distinguish it from the others. YouTube allows for an effortless upload of videos, LinkedIn features professional applications such as a job search tool, work recommendations, career oriented news updates. Twitter focuses on quick and instant updates, or what are called "Tweets", the site is also adapted to phone applications. The users of Facebook enjoy features such as instant messaging, constant news updates, and the ability to like and share information on their profile. SNS have evolved from simple platforms used to message friends to complex organizational and communication tools used by millions to bring forth real change.

This evolution was mainly due to the addition of features, such as the ability to create groups, mass messaging, instant updates, different languages and others. Social media have 7 building blocks that contribute to its overall function; identity, conversation, sharing, presence, relationships, reputation, and groups (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011).

Identity focuses on how much and which information about themselves the user discloses on the SNS. Conversation is to which extent the users on social media communicate amongst themselves. Sharing refers to the content that is being exchanged through the networks. Presence refers to the accessibility of users. Relationships are measured by the associations that users have among each other. Reputation is the trustworthiness of users online and finally groups refer to the various communities that form online. Social networks are a place where users are willing post about their interests, hobbies, likes, dislikes and other personal information to be shared with their friends and their online social circle, without being prompted to divulge it.

2.7 New media and social protests

Media is all around us, sometimes without us even noticing it. It is our morning newspaper, our favorite TV show, the radio on the way to work, the billboard next to the highway, it is everywhere and it is impossible to escape from it. Individuals utilize media to further their own interests. Media has been rapidly changing, adapting, modifying. New media is what is referred to more commonly as digital media. It involves things such as CD's, virtual reality, the internet, digital photography, etc. But the real distinction between traditional media and digital media is the distribution of the content rather than the production. A text that is written online is referred to as digital media, the same text printed in a paper newspapers is known as traditional media (Manovich, 2001).

A part of digital media that is the most engrossing is social media. Using social media websites users generate their own content and share it with others on the World Wide Web, while also

interacting with an audience. These websites range from personal blogs, public forums, social networking sites such as Facebook, Twitter or LinkedIn, to online video sharing site such as YouTube.

The platforms are a low cost and efficient way for people to communicate and to be informed. A recent study done by Pew Research, showed that 47 percent of Facebook users get their news from this platform, and an overall 30 percent of the American population read the news on Facebook. This number varies, however, between people who heavily read the news and ones that only occasionally follow them (Mitchell, Kiley, Goottfried, & Guskin, 2013). The biggest difference between traditional news and the news that is available on social media is the fact that users are able to comment, to discuss and to share their opinions not only with other users but also with the authors of the content. This type of user engagement is also giving light to many activities, such as group discussions, and feedback which improves the content available on the net. The public are no longer just consumers of media but are now in control of it.

When social networks started out they were mainly static and profile oriented, and were only updated when the user felt the need to do it. With the introduction of comment boxes, tagging, and other sharing tools, SNS became more interactive and thus more user generated content started being available and shared (Ellison & boyd, 2013). Content took the center stage and users started posting not only self-representational messages but also messages concerning other issues including news. This information can appear in many formats from status updates, posts, videos, and articles, some of which may be unbiased and others which try to present a certain point of view. This type of content creating and sharing gives users a "new perspectives, reinforce existing values, or users may choose to ignore the information entirely" (Johnson & Kaye, 2014).

This change can be seen when looking at the role that social media has played in international movements and protests. The most notable one to this day is the Egyptian Uprising in 2011, sometimes labeled as the "Twitter Revolution" or "Facebook Revolution". This was the first time when social media and online tools were used to organize the population and successfully bring down a dictator with such a colossal global exposure. This gave way too many other

uprisings in the Arab world, the revolts spread with rapid speed. It would be unwarranted to say that social media alone was responsible for instigating these political protests, but it cannot be denied that their success was in part due to the digital media's wide reach and the organizational capabilities that they were able to provide. Social media are tools used to lower the costs of organization, recruitment of participants (Papic & Noonan, 2011) elements that before would be unnecessarily long and involve a complicated process. Social media was used to post pictures, videos and live content that was able to be streamed all around the world. Independent bloggers wrote articles that talked about the news that were not available through broadcast media.

Not all digital media was used to support the protesters, traditional media sources such as state owned TV stations and radio did everything in their power to stop the spread of revolutionary ideas. The dictator regime tried to censor the outpour of independent content that was being posted to social media, by monitoring telecommunication, by intimidating or refusing visas to foreign journalists and even shutting down the internet for a certain time period (Cottle, 2011).

Although the Arab Spring got the most acknowledgment for using social media, other protests can attest part of their success to the digital media tools. Other notable movements included the 15M protests in Spain in 2011 where mobilization was made possible by the use of digital media and particularly social networks which were able to "produce a case of personalized digitally networked action" (Anduiza, Cristancho, & Sabucedo, 2012). Occupy Wall Street Movement was focused on user generated content, like videos made by a "citizen journalist", distributed through Twitter, offering real time search, which enabled the general population to get more informed about what was going on, which eventually led them to participate in the collective action (Gleason, 2013).The Iranian Revolution, which took place in 2009 against a corruptive government, used all forms of various media. "internet, email, satellite television and cell phones helped not only to organize people but also to shape public opinion" (Fathi, 2012).

Social media and other digital tools such as cell phones and SMS messaging act as a supplement to organizational and mobilization actions. They spread revolutionary ideas in an already troublesome situation, but the media itself are also an act of protest against years of censored

and controlled mass media. It provides a way to spread information that might not otherwise reach outside of the country, and because the internet is an open platform it is harder for government and dictatorships to control and shut down. In this way new media is able to propel such movements to their full potential and bring down entire governing entities.

Chapter 3

Methodology

3.1 Research Framework

This research aims to determine the way social media sites are affecting the spread of revolutionary ideas, collective action and global support. The theory base will serve as a guideline for the formulated research questions and design of the research methodology. The research method that was chosen for this dissertation was the survey method, which allows for a mixed method design and data analysis.

Mixed method research gives more freedom to the design and analysis of the questionnaire, and the paradigm allows for the use of both qualitative and quantitative methods to investigate the same phenomenon (Leech & Onwuegbuzie, 2007). The mixed method research process model offered by Johnson & Onwuegbuzie (2004) lists 8 steps which include (1) formulate research questions, (2) determine whether this type of approach is right for your research questions, (3) select the mixed method or mixed model design, (4) collect the data, (5) analyze the data, (6) interpret the data, (7) make sure the data is legitimate, and (8) draw the final conclusion from your analysis.

This model was used throughout the research process to make sure all the steps were being met.

The survey that was conducted for this thesis used both quantitative questions, which were close ended and offered a number of options to the participants and open ended, qualitative questions. Open ended questions engaged the participants to reveal the reasons why and how they disseminate revolutionary ideas and information. The quantitative focus of the survey will serve

to understand if social media impacts societal revolutions and the qualitative results will serve to understand in what ways it impacts the revolution. This type of research offers the best chance to obtain useful and unrestricted answers, that will shed more light on the topic being studied (Johnson & Onwuegbuzie, 2004).

Multiple factors we considered when choosing this method of research. The individual survey, as the one used in this case, could be defined as a questionnaire filled out by a sample population. It often encompasses questions about the knowledge, opinions, attitudes, behavior, and demographics of the participants (Klandermans & Staggenborg, 2002).

This design is capable of gathering large amount of qualitative and quantitative data at a low cost, and with much higher speed than other research methodologies. Given the nature of the topic anonymity is considered a critical factor, since individuals might be apprehensive in answering questions about their participation in revolutions or protests. Because of these reasons the survey was administered electronically for confidentiality to be ensured.

Upon reviewing the literature, another theoretical framework appeared. Mathematical models were often used to analyze social media data. The models were used in a variety of papers along with data mining software. However, for the purpose of this dissertation it was rejected due to its high complexity, the programs needed for data scraping, as well as for its high cost and time consumption.

The objective of this thesis is to get a deeper and more complex understanding which can be fully achieved through the analysis of both qualitative as well as quantitative types of data.

The research questions that were formulated for this study focus on the influence that social media has on the various aspects of a social revolution. They are as follows:

RQ1: *Does social media influence the impact of societal revolutions through content dissemination?*

The first research question aims to understand whether free information exchange through multiple sources influences peoples view and knowledge of the revolution, and whether the availability of such websites allow for a greater reaction to the events.

RQ2: *Are social networking sites used to urge participation in a collective action in an offline environment throughout the world?*

The second question focuses on societal protests happening outside the digital world. When people gather on the streets to manifest, how do they organize themselves? Does social media create an environment which facilitates organizational tools and the ability to bring more people to the cause?

Social movements are commonly thought to take place in one country, bringing people to the streets of that country in order to fight injustices. With the power of social media, which is known for its global reach, more people are going out into the streets all over the world to fight for that same cause. This allows a protest to pass the boundaries of a country and bring the message to far off countries through both an online presence and physical protests.

This can been seen in the Ukrainian Euromaidan Revolution. While the movement was happening in the streets of Kiev and other major cities in Ukraine, people also gathered in the streets of Milan, Brussels, London, Toronto and many other cities. They showed support and joined their voice to thousands of others, to bring about the change that was needed.

RQ3: *Does social media effect protest perception?*

The intention of this paper is to find out if social networks help spread revolutionary ideas and aid in the growth of international movements and protests. The goal is to examine factors such as media and collective action and their ability to affect people's views and actions on

revolutions. Media, in general, is the tool that allows collective action to reach the greater population, but to what extend does social media help change the way the revolutionary content is perceived?

Social media is a small part of the overall media technology, however it is also proving to be one of the most effective. The research question intends to understand whether social media, as an open space for a variety of content, help change perception of content.

In this study the dependent variable will be protest attendance. The independent variable is the media, since the social media's influence on this phenomena will be measured.

The first set of hypotheses are derived from media theory as well as collective action theory, mentioned in the literature review. Using these two theories as a base, the questions were developed to understand if and how media drives interest in the Revolution as well as protest attendance.

Open ended questions looked at the type of media that is most widely used and how individuals are using it. Close ended questioned probed the importance and amount of media usage.

Hypothesis 1 *There is a relationship between sharing of information via social networks and protest attendance.*

This hypothesis is based on the principles of McLuhan's Media theory which suggests that new media is a constant influence in our lives. "He (McLuhan) maintains that a major shift in society's predominant technology of communications is the crucially determining force behind social changes" (Kostelanetz, 1967)

It also refers to social network theory, and weak tie research completed by Granovetter (1983), in which it is mentioned that weak ties help diffuse information further and thus reaching and mobilizing a greater population. Weak ties are formed over social networks, hence a hypothesis

is formed that sharing information with individuals online, via social networks is related to the amount of people attending offline protests and movements.

The survey included many variables, some of which focused on behavioral intentions and others on attitude. It is logical that these two types of variables should be looked at separately. For this reason the above hypothesis focused on behavioral actions, such as media use or attendance.

The next hypothesis will look at individual's attitude towards an action.

Hypothesis 2 *There is a strong relationship between sharing information online and inclination to join a movement or protest.*

Collective action theory is the base for the second hypothesis. Research done by Harlow and Harp (2012) discussed how social networking sites can foster offline relationships and collective action. SNS bring more exposure to protests, which encourages motivation between the participants.

By sharing content, individuals diffuse information about the Revolution, whether it be articles, videos, pictures or calls to action.

Hypothesis 3 *There is a relationship between the resident country and how people learned about a protest.*

Hypothesis 3, is based on the findings that conclude that internet use varies greatly between countries in Eastern Europe and Western Europe. Do individuals find out about protests through online channels more often in Western countries than in Eastern countries? Internet and social media presence is different in every country. Western countries tend to use the internet more and be more involved in social networks than Eastern European counties. A statistical analysis

of the Internet penetration rate for Europe, showed that western countries such as the United Kingdom were active on the internet 87 percent of the time compared to Eastern countries such as Ukraine with an average of 34 percent. A more specific analysis of social media penetration showed similar results, placing Ukraine at the low end with only 27 percent of the population using social media and western European countries such as Denmark, Sweden and UK among the highest amount of users (Kemp, 2014).

Hypothesis 4 *There is an association between the importance of social media and the way you heard about the protest*

This hypothesis is formed from the base of the social network theory. Diffusion is an important part of the social network theory and is responsible for communicating content to the general population. The most rapid and effective form of diffusion in today's society occurs through social networks and social media. The hypothesis tests whether there is a relationship between how respondents perceive social media importance in their daily lives and if they heard about the protest through online or offline channels.

Hypothesis 5 *There is a relationship between social media use, meaning how often you check your social sites per day, and protest attendance.*

This hypothesis forms from the idea that collective action is fueled by social media. It incorporates social network theory and its study of networks online as well as collective action theory, which looks at the organization of people for a unified purpose. There is a difference between individuals who are active on social networks, and ones who use the networks simply to follow people, groups or news. Are respondents who only casually check their social networks still motivated to join a protest?

The two variables are derived from two questions posed during the survey. Social media was measured on a Likert scale, asking respondents to indicate how many times per day they check social media. The second variable is a question that asked respondents whether or not they attended a protest with regard to the Revolution in Ukraine.

Hypothesis 6 *There is a relationship between thinking the internet influences the revolution and an inclination to join a movement.*

Hypothesis 6, is formulated from the research that shows that movements are not self-contained but are rather built upon other events that will later influence the movement. Individuals were asked if they believed the internet had an influence on the revolution. Seeing social networks circulating information about other movements happening throughout the world, and certain events that led up to the Revolution of Dignity, could affect their opinion of the internet's role in the process. Seeing or hearing about other protests and unjust events and believing the internet helped fuel them, encourages others to join in the revolutionary ideas.

3.2 Sample

The target population of this study includes individuals who follow the events pertaining to the Euromaidan Revolution 2014, on social media sites.

No other restrictions were applied, in order to get a more varied and representative sample. The survey was administered to both Ukrainian and English speakers, however was limited to people who speak one or both of these languages.

For this study the non-probability, purposive sampling method was chosen. Purposive sampling means that the target sample was chosen based on certain criteria that allow for more concise ad informative responses to the posed research questions. The characteristics considered in this

paper included the knowledge and use of social media websites and the knowledge of the Ukrainian revolution. Although this type of sampling technique cannot be used to generalize an entire population the results may lead to conclusive findings about the sample of interest.

At times this method it is critiqued for its bias and considered a weaker method however the mixed method research design often utilize this sampling technique. Considering the sensitive nature of the topic and due to time and resource limitations it is the more appropriate method. A study done by analyzing the articles from the Business Review Journal found that the majority of International Business articles relied on non-probability sampling method (Yang, Wang, & Su, 2006) as well as the survey method.

The subset of the purposive method, the snowball sample, refers to sample growing in the process of the study due to referrals from the participants. The snowball sample occurred because of multiple participants offering to send the survey other Ukrainians which fit target population. Although not a part of the initial method, it became an important factor in receiving respondents.

The sample size was determined by using the standard guidelines for calculation of a sample size of an unknown population. The population of this study is based on certain characteristics, as mentioned above, and for this reason it is impossible to establish a clear number of individuals in such a population.

The formula that was used took into account the confidence level and margin of error as well as the standard deviation. For this research the confidence level of 90 percent and a 6 percent margin of error were used. The outcome concluded that a minimum of 188 survey results are needed in order to yield valid results and final conclusions (Smith, 2013).

The survey collected 275 responses, however some needed to be excluded due to being incomplete and only 263 could be used for analysis.

3.3 Instrumentation

The survey examined the perception of information through social media and the ability for social media to disseminate revolutionary ideas.

Surveys could be distributed in person, by phone, by mail, but for the purposes for this thesis an electronic technique was chosen. The primary reason behind this decision was the fact that the study focuses on social media in particular and the knowledge of this technology is essential for this survey. The survey was administered through the social network sites, Facebook, LinkedIn and through email.

The question order was structured in a way to lead the participants through a natural thought process. Considering the criteria for writing effective questionnaires that meet the goals of both the respondents and the administrator (Brace, 2004), the questions were designed to be easy to answer, understandable to the reader, interesting, not leading, using clear vocabulary, and were administrated on a user-friendly online platform.

The survey platform used was SurveyPlanet.com. Upon clicking on the link, which was sent to the respondents through social networking sites, the individuals were taken to the online platform. The platform displayed an introduction message explaining the objective of the survey along with the time estimate of how long it should take to completely, they were also informed that it is complete anonymous.

The questions were displayed one per page, with plenty of white space to ensure that the participants did not feel overwhelmed and did not lose focus.

The survey was broken down into four parts, each probing a different area of interest that would ultimately lead to the final conclusions.

The first part of the survey focused on demographic questions, such as age, gender, marital status, education level and occupation. These questions are needed to establish the

characteristics of a population and break the information down into valuable categories that will be used in the data analysis.

The next section of the survey, questions 7-14, are aimed at discovering individual's media usage. Questions focused on the participant's media usage and their website preference when it comes to news about the Ukrainian Revolution. This section is needed to establish that the participants have an online presence that is needed for this study and to get a deeper insight into the way the participants use social media to get information on the Revolution.

Questions 12 and 13 analyzed the importance and use of social media. For these questions a Likert scale was used. Importance was tested on a scale from 1-5, 1 being 'Very important' and 5 indicating 'Unimportant'. To test how often respondents checked their social media accounts a frequency Likert scale was developed, the scale ranged from 1 -4, 1 being 'Once per day and 4 being ' More than 8 times per day'. "Does not apply" option was added to both questions. During analysis the individuals who chose "Does not apply", were considered system missing in SPSS and excluded from analysis.

The third part of the survey which included items 14-16 were formulated to understand why people share information and what type of content they post on social networking sites. This helped unveil the reasons behind why people disseminate information on certain topics and where they choose to post/share such information.

Questions 17-22 looked at the individual participation in the offline social movements or protests and the role of social media in facilitating participation. Respondents were asked if they ever participated in protests in regard to the Ukrainian Revolution, and under which circumstances they found out or were persuaded to go.

The last few questions, 23-28, were mostly open ended and were used to receive the personal opinion of the respondents and their views on social media and its role in the spread of the Ukrainian revolution. This section allowed individuals to write their own views which many surveys omit and therefore provided a much deeper insight into the topic being studied.

The survey included a total of 28 questions out of which only 20 were mandatory, others were only asked if the respondent answered in a certain way. The respondents were told to skip questions that did not apply to them.

The survey was administered in both Ukrainian and English languages and two links, each for a different language, were sent out along with the cover letter. The respondents could choose in which language they preferred to answer the survey. The survey was written in English then translated in Ukrainian and checked by a verified translator for any mistakes and misconception in meaning.

In order to prove validity and reliability of this study, a pre-test was conducted. 20 individuals, 10 Ukrainian speakers and 10 English speakers, of the same target population were selected through the same methods as used in the original survey. The answers provided in the pre-test were taken into consideration when rewording and modifying the final questionnaire. This was done in order to be sure that the questions were clear and understandable and that there would not be any misinterpretation.

3.4 Data Collection

The data for this research was collected through an online survey distributed through social media sites, Facebook, LinkedIn and over email. The respondents were selected through a search of online groups involving the Ukrainian Revolution such as Euromaidan, Euromaidan PR, etc.

The questionnaire was sent out with a brief message along with a cover letter (see appendix A), detailing the research objectives and the link to the online survey platform, respondents were informed that it is anonymous since the subject is of sensitive nature.

This type of message was sent out every day for 4 months between January and March of 2015. Each day approximately 60 people were contacted, and in turn each was asked to send the

survey to individuals that they thought might be interested in being involved in this type of research.

The data collection method presents advantages both to the respondent and the administrator. The clearest advantages are of time and money. Online surveys can be done without a researcher present hence saving time and resources. The internet presents large scale accessibility to the population without spending much time contacting individuals, a problem often encountered during phone interviews. Unlike postal questionnaires which need to be mailed to each individual, an online survey can be facilitated through free survey platforms thus decreasing costs.

A unique feature of online surveying method is the flexibility offered to the respondents, they can reply to the survey at any time of day, taking as much time as they need without out the added pressure of having a researcher present, which could decrease influence by the researcher.

Online surveys provide real time data which enables faster and easier data collection. The responses to the questions can be easily integrated into a data analyzing program such as SPSS and the data is stored automatically on the platform for as long as the survey is in use. "Communication researchers may find the Internet an especially rich domain for conducting survey research. Virtual communities have flourished online, and hundreds of thousands of people regularly participate in discussions about almost every conceivable issue and interest" (Wright, 2005).

This method is not without limitations. Limited internet access of some populations, and the willingness or ability of individuals in certain regions to answer a survey cause the biggest challenges. This makes it difficult to obtain a truly representative sample that can be applied to the population. A problem that was encountered on many occasions in this research, but is also a growing concern for online surveys in general, is being considered as spam by the potential respondents. The internet is bombarded with false advertisements, spam, trolls, fake profiles or information and often internet users are weary and cautionary when it comes to replying to an unknown solicitor and may ignore the request or ask for validation.

Despite this online survey could achieve equal or better response rates than traditional methods of data collection.

Chapter 4

Results and Analysis

This section will present the statistical research and results that were performed to test the hypotheses and the research questions mentioned previously. The data that was used, has both quantitative and qualitative results. Both statistical analysis of the closed ended questions and the graphical representation of the open ended questions will be presented in the following sections:

1. Socio-demographic representation of the sample
2. Social media use
3. Protest attendance and social media
4. Social media vs. conventional media
5. Attitudes towards social media and the Revolution
6. Hypothesis testing

4.1 Socio-demographic representation on the sample population

Socio-demographic data provides a better understanding of the sample population. In the case of this research it is especially important to acknowledge factors such as age, level of education and resident country since they could have a great effect on the variables that will be tested further on.

Figure 4.1 shows that the sample is almost evenly divided between female and male.

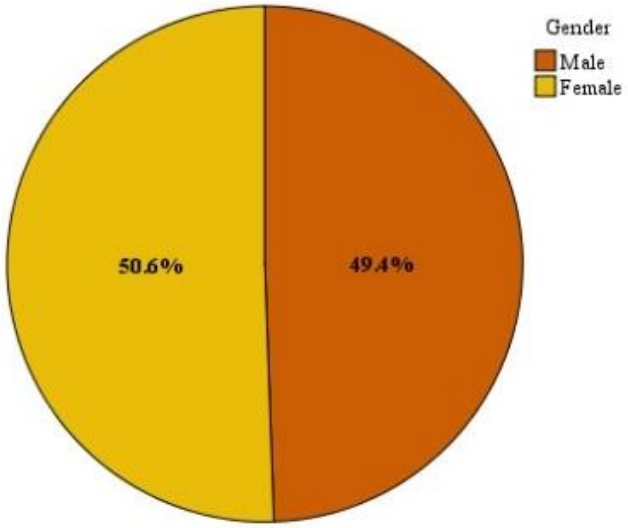

Figure 4.1 Distribution of sample data by gender

The age distribution is slightly more skewed, as a greater majority are between the ages of 22-34, as seen in figure 4.2. However the difference between the various age groups is not too large, concluding there was no bias in collecting the data.

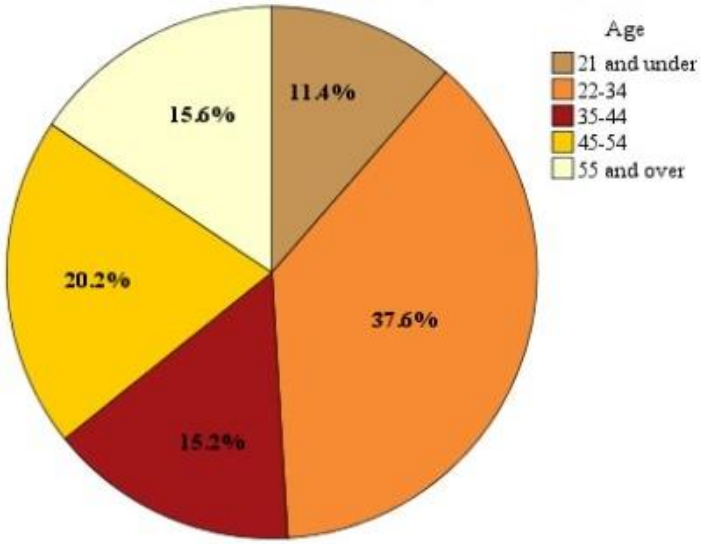

Figure 4.2 Distribution of sample data by age

Figure 4.3 shows the sample distribution by resident country. The survey question was left open ended and the results were then coded into 3 separate categories. The reason for these specific categories comes from the fact that the Ukrainian Revolution erupted due to a demand for stronger ties with the countries of the European Union. These categories will allow for more significant research results. The sample is almost evenly divided between USA and Canada, 41.83 percent, and the countries of the European Union, 40.3 percent, and only 17.87 percent of the people reside outside the European Union.

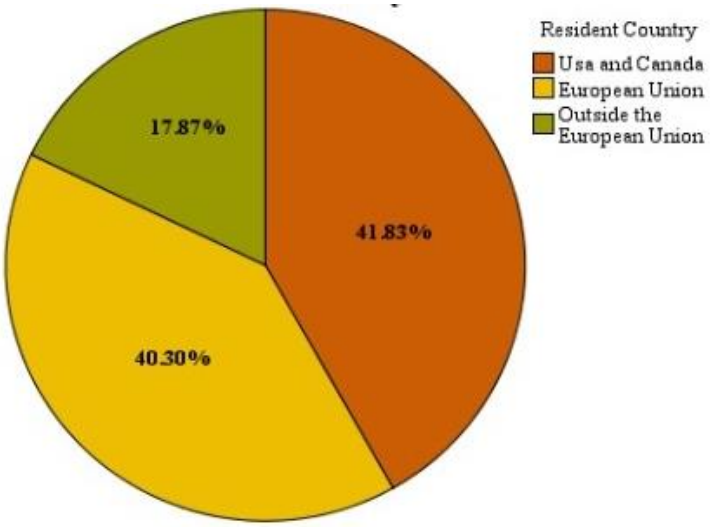

Figure 4.3 Distribution of sample data by resident country

Figure 4.4 shows the majority, 73.4 percent, of the sample is highly educated with a Bachelor's degree or higher (42.21 percent have received a Graduate degree and 31.18 percent hold a Bachelor's degree). The remaining 26.2 percent, are divided between individuals with a high school diploma, 18.25 percent, and technical degree, 8.37 percent.

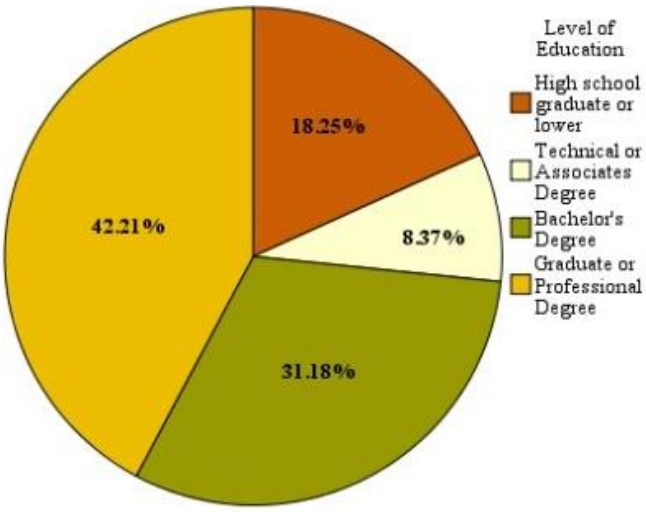

Figure 4.4 Distribution of sample data by education level

Out of the sample, 63.88 percent are employed for wages, figure 4.5. The "employed for wages" category also included self-employed individuals as well as the individuals serving in the military. These categories were collapsed in order to yield more statistically significant results. The second largest portion of the sample are students, 20.53 percent. The remaining population are either retired, 9.13 percent or unemployed, 6.46 percent.

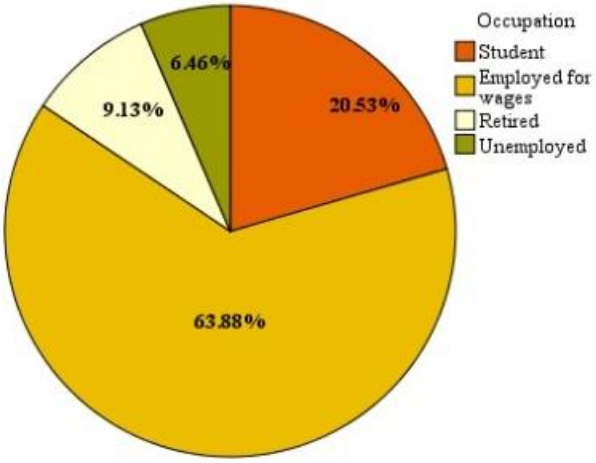

Figure 4.5 Distribution of sample data by occupation

4.2 Social media use

4.2.1 Types of social media being used

The survey included questions to investigate individual's use of *social media* to find out information about the Ukrainian Revolution. If the respondents answered 'yes' to using the internet for informational purposes, they were then asked to name the internet sources they used. This was an open ended question from which the results were then sorted into nine separate categories, as seen in figure 4.6. These categories were determined following an extensive research into every news source that was listed.

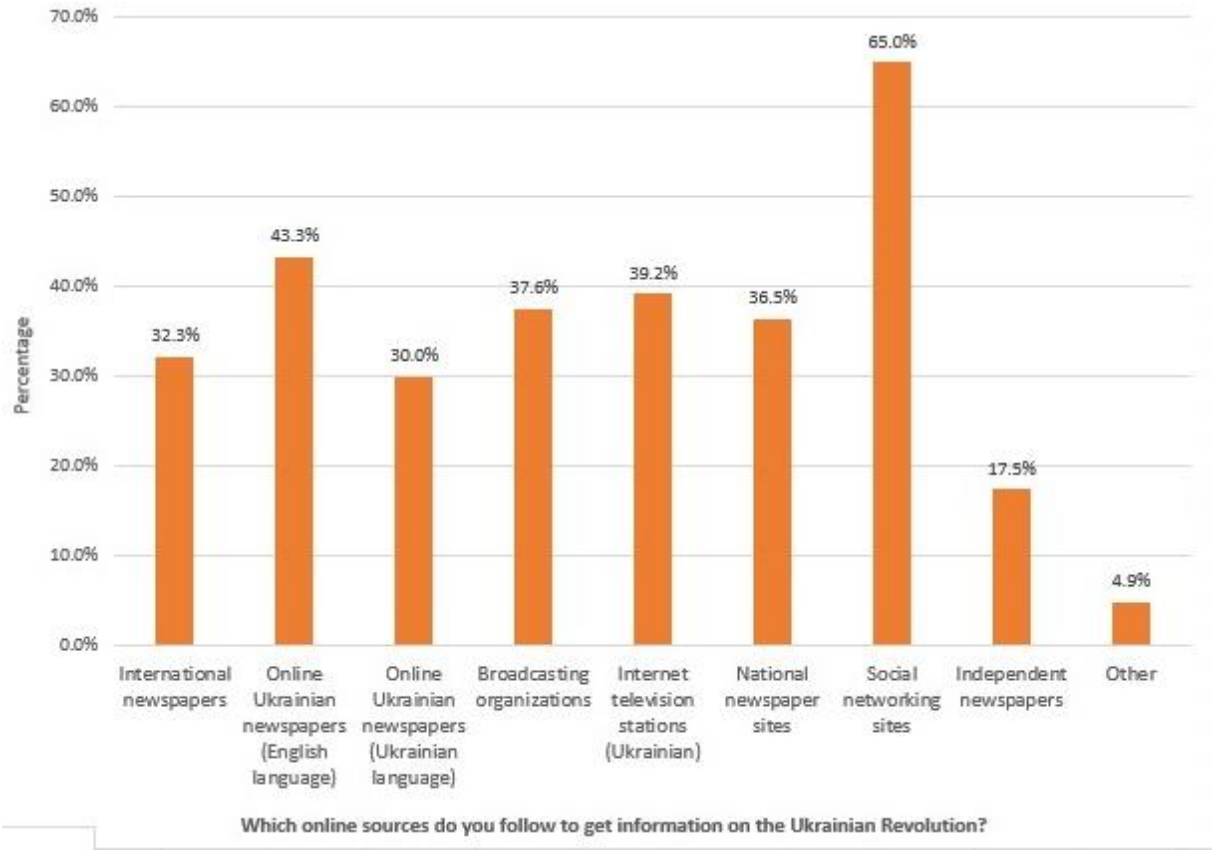

Figure 4.6 Online sources for information search

In order to narrow down the research, respondents were asked specifically whether or not they used social media as a way to gain information about the events in Ukraine. If answered 'yes', the next question asked to list the specific websites. This question was open ended and figure 4.7 shows a graphical representation of the various social media sites that the respondents listed.

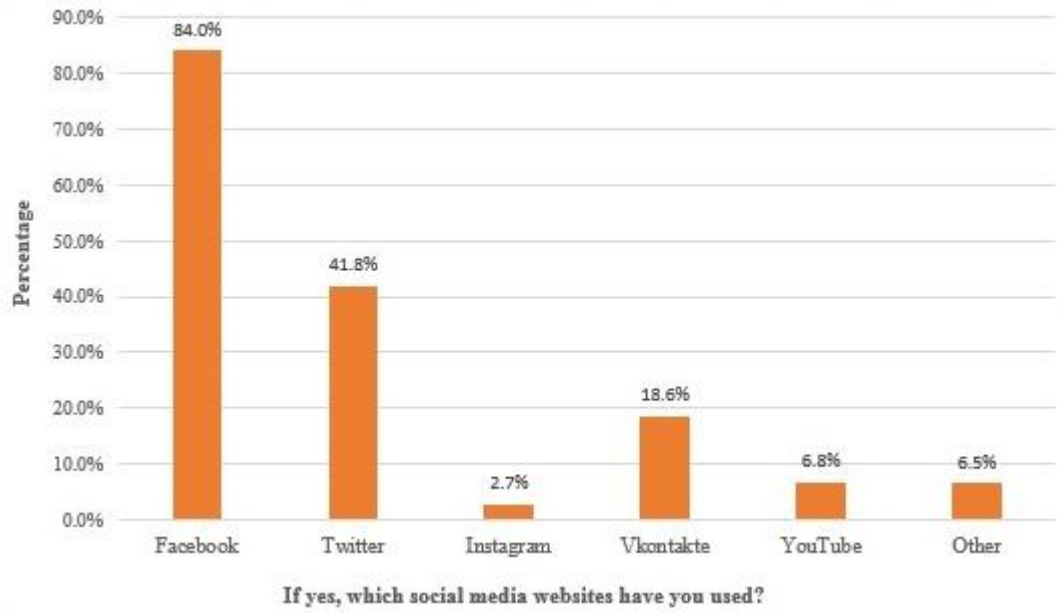

Figure 4.7 Types of social media used for information search

It shows that the majority of the respondents used Facebook or Twitter, however a significant portion of the sample also used Vkontakte, a Russian based social media site similar to Facebook.

However using social networking sites does not always mean being engaged in them. The next set of questions aimed to find out whether or not the respondents were actively using social media sites to, not only, search but also post and/or share information with other users. The respondents were asked if they posted or shared information pertaining to the revolution. Table 4.1 shows that 213 individuals have posted and/or shared information.

Table 4.1 Use of internet to post/share: Frequency table

Use of the internet to share information

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	213	81.0	81.0	81.0
	No	50	19.0	19.0	100.0
	Total	263	100.0	100.0	

If the participants answered "yes", it was then inquired where they posted the information. As mentioned previously, the second question was left open ended to get a better representation of the type of social media that the respondents were using. Figure 4.8 shows on which sites most respondents shared the information. As in the above question, most respondents used Facebook and Twitter, and a significantly smaller portion used Vkontakte and blogs.

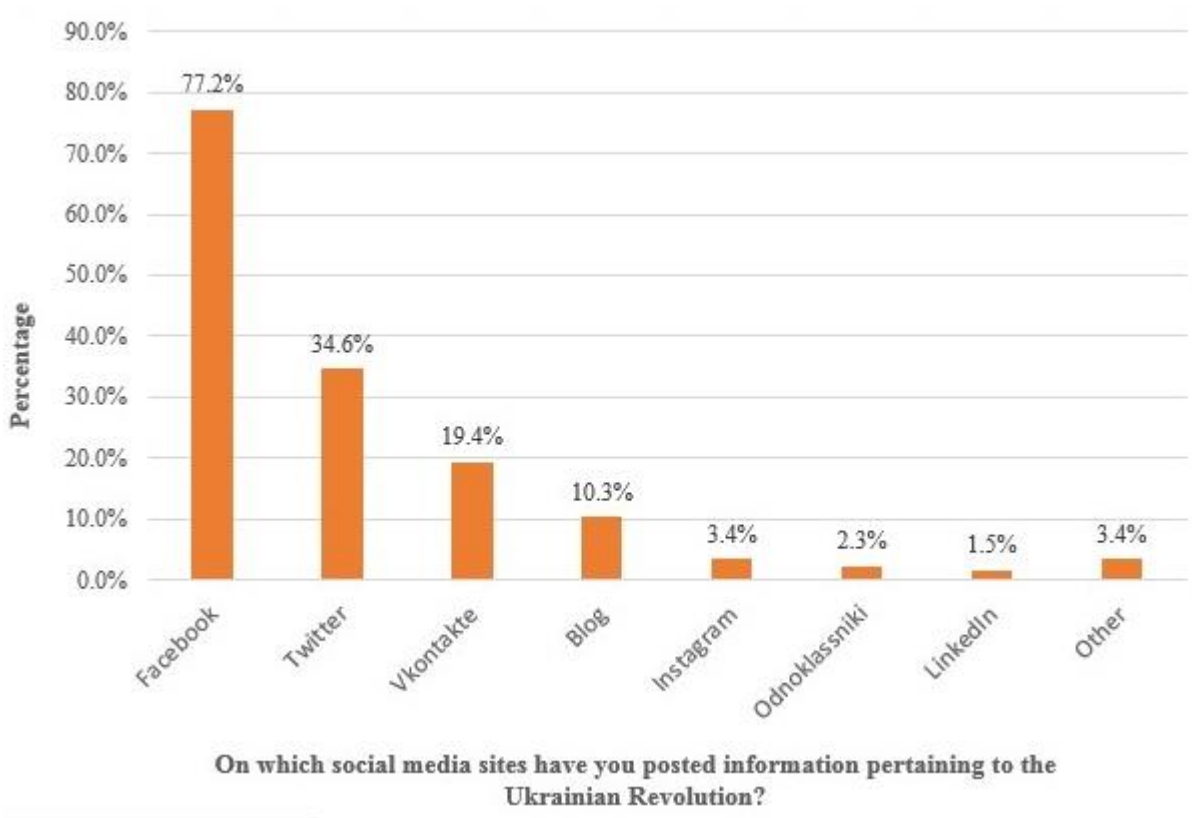

Figure 4.8 SNS where respondents share content

To delve deeper into understanding the respondent's intentions when they post, the survey asked the reasons for this action. The question was close ended with multiple responses, and offered nine categories, including the choice "Other" where respondents were given a chance to write their own answer. Figure 4.9 shows a graphical representation of the responses. The categories were formed from analysis of previous research as well as from the preliminary testing on the topic.

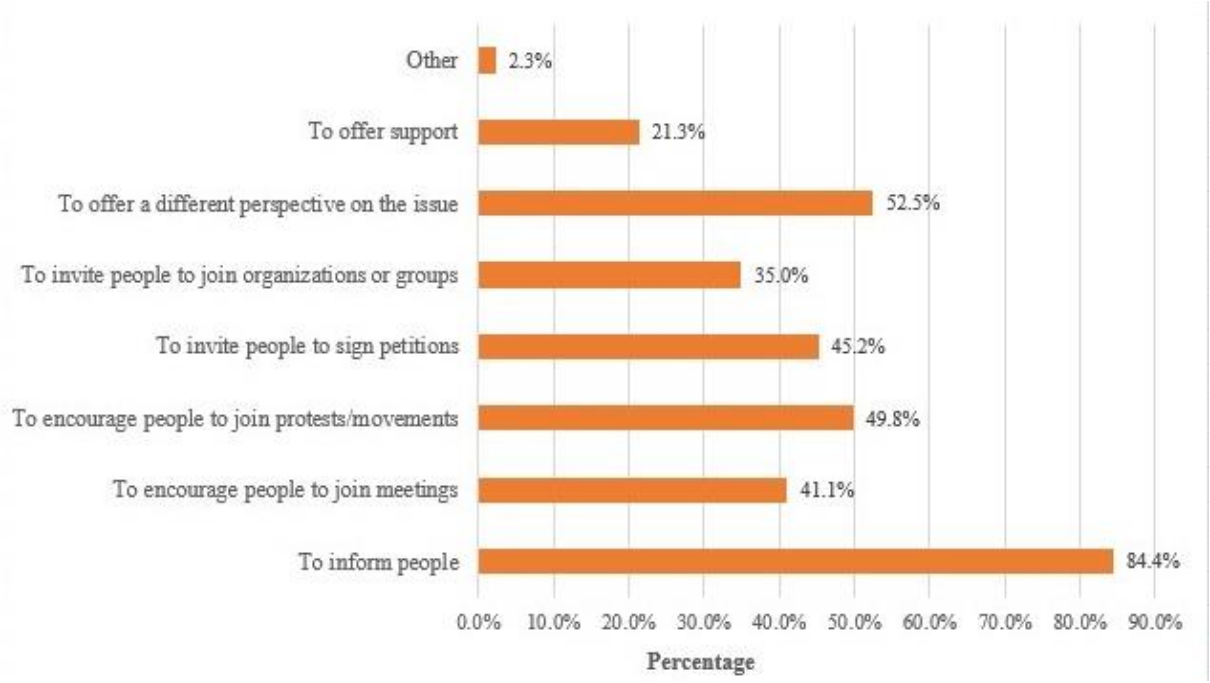

Figure 4.9 Type of content posted/shared on SNS

Most respondents posted content "in order to inform others" and "offer a different perspective on the issue", however a significant portion of the sample also posted to encourage others to take action and participate in the revolution, in some way. This encouragement can be small such as signing a petition, which does not require you to leave your computer or as large as to invite individuals to join a local protest. Since the question was a multiple response and close ended, a Cronbach's alpha test was performed to determine the internal consistency and the scale reliability.

Table 4.2 Cronbach's Alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.717	.690	8

Table 4.2 shows that the Cronbach's alpha is .717 indicating that there is high internal consistency between the items. The UCLA Institute for digital research and education states that Cronbach's alpha greater than .7 is considered acceptable in most research situations (http://www.ats.ucla.edu/stat/spss/faq/alpha.html).

4.3 Protest attendance and social media use

The second part of the questionnaire inquired into protest attendance. To determine if the two categories (attended and did not attend) are equal a binomial test was done. The hypothesis are as follows:

$$H_o: P = .5$$

$$H_a: P \neq .5$$

P equals to the proportion of the people who attended protests. Table 4.3 shows that the p value is less than .05, which means that H_0 is rejected, concluding that the mean portion of the sample who attended protests does not equal to .05. From the binomial test it is also visible that 161 respondents attended a protest while 102 did not.

Table 4.3 Protest attendance: Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Have you attended protests or revolution	Group 1	No	102	.39	.50	.000
	Group 2	Yes	161	.61		
	Total		263	1.00		

To understand how social media effects societal protests, it is important to know how people found out about the protest. The next set of questions asked if respondents found out about the meeting or protest through an internet source. The question "Did you find out about the protest from an internet source" offered three responses; "yes", "no", and "does not apply". For the purpose of this research the respondents which answered "does not apply" were considered system missing in SPSS. If the respondents answered `yes' they were asked to list the source and if answered `no they were also asked to list the source.

Figures 4.10 and 4.11 show the graphical representation of the answers given in the survey, respectfully.

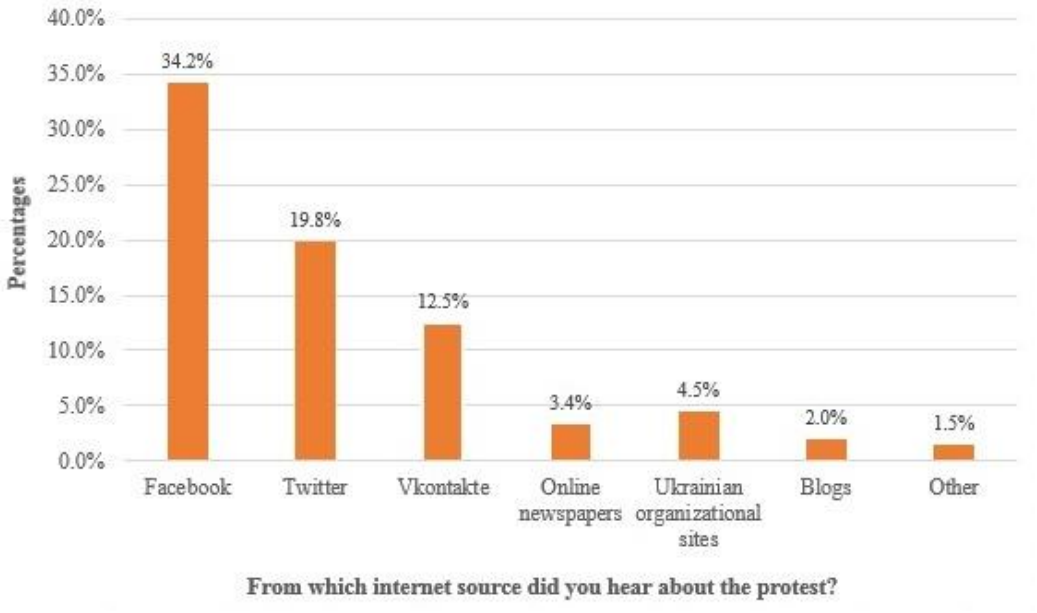

Figure 4.10 Online sources of information about protests

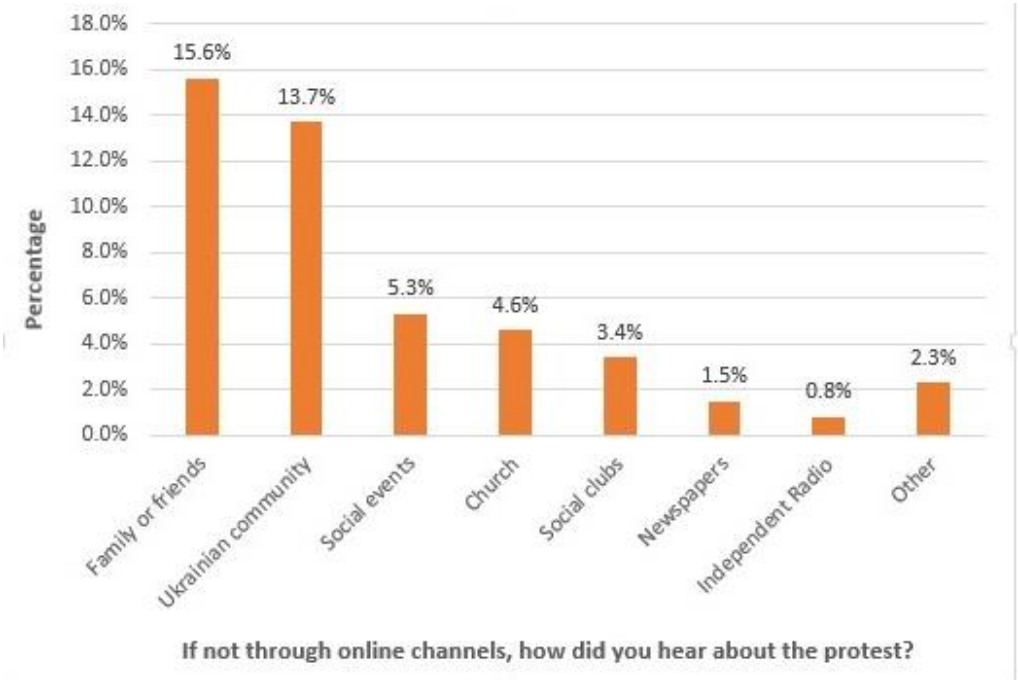

Figure 4.11 Offline sources of information about protests

It is possible to see in Figure 4.10 that if a respondent heard about a protest online it was most likely through Facebook (34.2 percent) or Twitter (19.8 percent). Figure 4.11 displays that respondents who did not learn about a protest online, heard about it mostly through friends or family (15.6 percent) or a Ukrainian community (13.7 percent).

4.4 Social media vs. conventional media

Following McLuhan's theory, the survey intended to find out whether there was a difference between social media and conventional mass media and whether that effected the revolutionary action of individuals.

The respondents were asked if the content that they saw on social media sites, pertaining to the Ukrainian revolution and the events coinciding with it, made them more inclined to join in an offline protest.

Table 4.4 Inclination to join an offline protest: Frequency table

Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	186	70.7	70.7	70.7
	No	77	29.3	29.3	100.0
	Total	263	100.0	100.0	

Table 4.4 shows that the majority, 70.7 percent, are inclined to join after looking at content online, while only 29.3 percent said they said they would not. However this just measures the attitude of the individual and does not necessarily translate into action.

McLuhan's Media theory states that the medium affects the message. So in order to understand if people really saw a difference between the two most used mediums of content distribution, social media and conventional mass media, respondents were asked to list the differences between the two mediums, in terms of the Ukrainian revolution content. The question was open ended and the answers were then grouped into nine separate categories that were later collapsed, to gain more valuable results, into 4 categories. Figure 4.12 shows a graphical representation of the survey results.

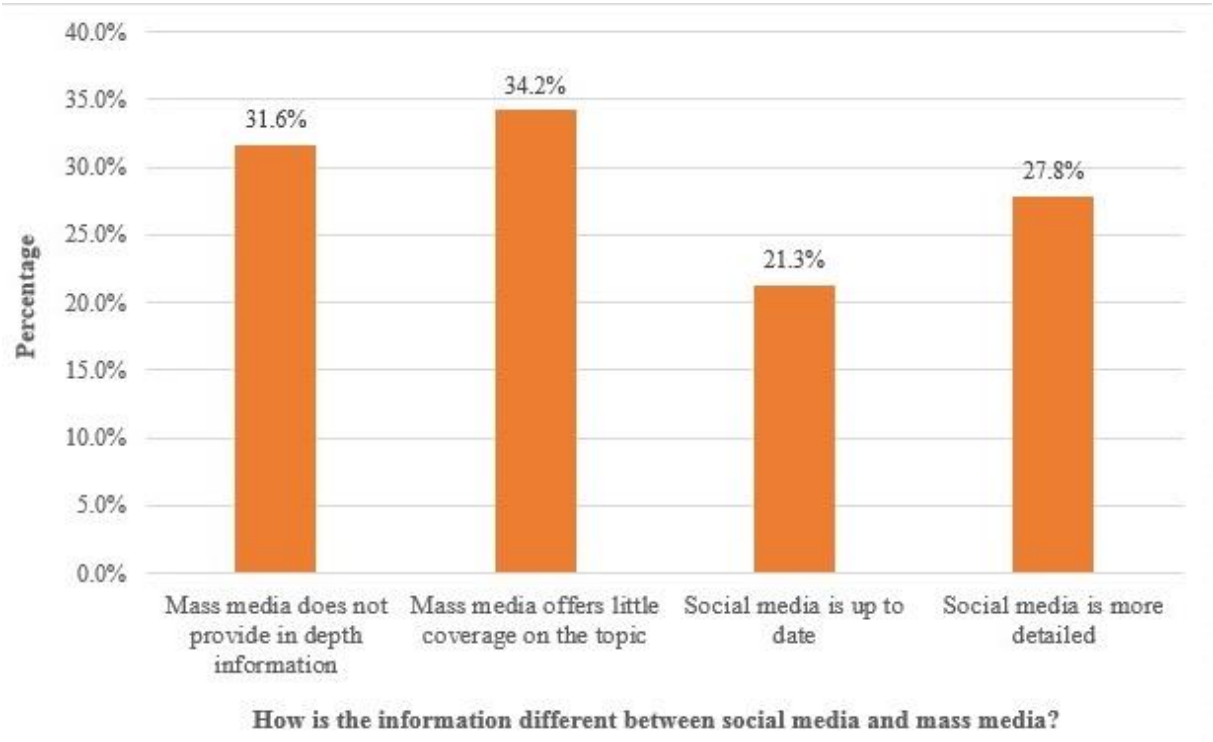

Figure 4.12 Difference between social media and mass media

The biggest difference between the two forms of media is that mass media does not always provide enough information (34.2 percent) and that it is not quick enough to report the latest news (31.6 percent) while social media is more detailed (27.8 percent) and more up to date with the latest events (21.3 percent). This is especially important in an event of a Revolution, in which a situation could change within hours and even minutes. Mass media is spread out between numerous news and can overlook the details. Social media is updated by many people, often the same ones that are on the front lines of the revolution. The data gathered is qualitative, since the respondents were given the freedom to write down their own thoughts. In order to present the results in graphical form the answers were studied, sorted and categorized.

4.5 Attitudes towards social media and the Revolution

The final questions continued to test the respondent's attitudes towards social media. Respondents were asked if they believed that social media had an influence on the revolution and if yes, how. Figure 4.13 shows the categories that were created from this open ended, multiple response question.

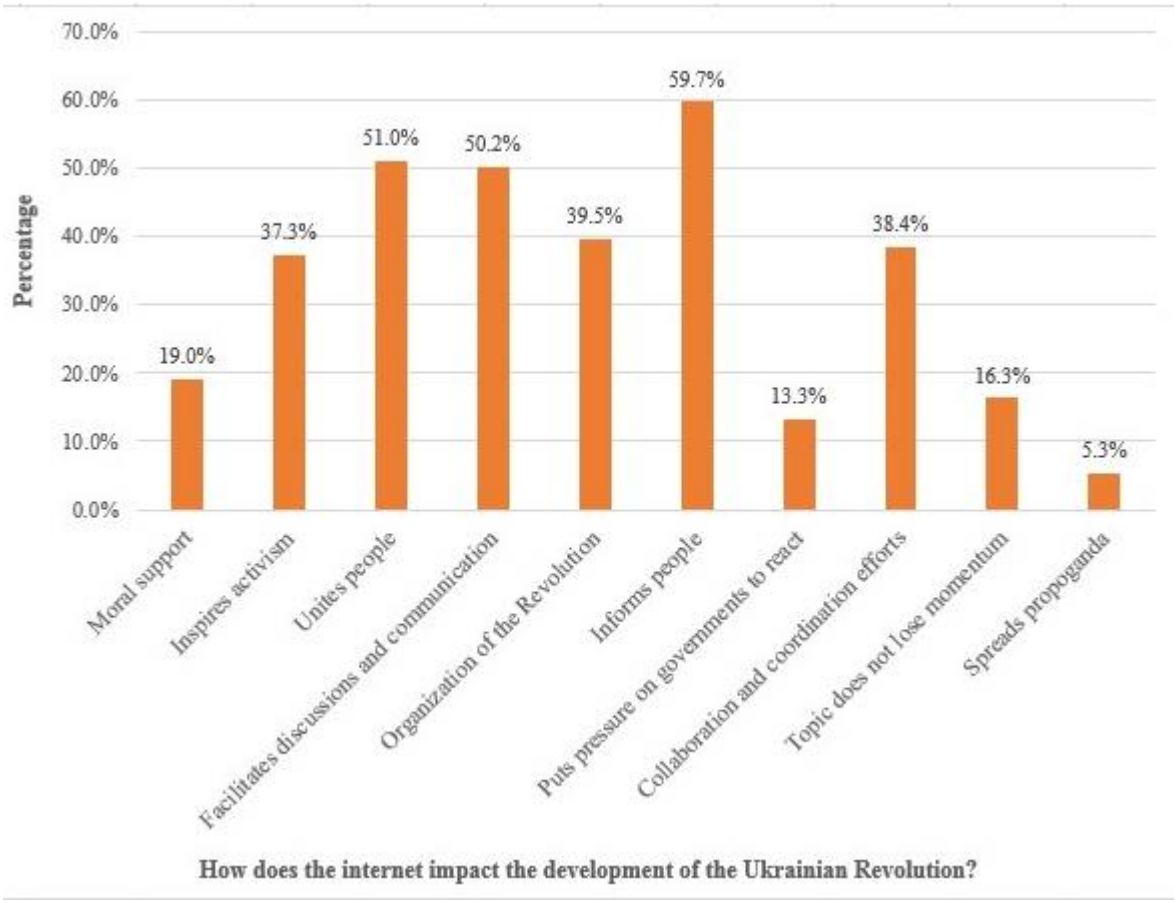

Figure 4.13 Internet's impact of the internet on the Revolution

The biggest portion of people believe that the internet helps inform people (59.7 percent), however the more unexpected answers are that the internet unites people (51 percent), it supports the organization of the Revolution (39.5 percent) and it aids in collaboration and

coordination efforts during the Revolution (38.4 percent). A small portion of the people believe that the internet is not useful but mostly spreads propaganda (5.3 percent). However, this question demonstrates that the people who utilize the internet for the purposes of progressing the revolution, do believe that their efforts are valid and that the internet does impact the Revolution in many significant ways.

The last question asked whether the respondent's trusted social media and the information presented on these platforms. Table 4.5 shows the respondents answer to this.

Table 4.5 Social media trust: Frequency table

Do you trust social media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	112	42.6	42.6	42.6
	No	32	12.2	12.2	54.8
	Yes, only when I verify the information	119	45.2	45.2	100.0
	Total	263	100.0	100.0	

There is a lot of information available on the internet and via social media however not all of it might come from credible sources. For this reason most people trust social media, only if they first verify the information (45.2 percent) and only a small portion of respondents (12.2 percent) do not trust social media at all.

4.6 Hypothesis testing

4.6.1 Hypothesis 1

Appendix table B.1 shows the cross tabulation between two variables, protest attendance and sharing information online. There is a visible pattern, sharing information online results with higher protest attendance, while not sharing information online correlates with not attending protests.

However cross tabulation only shows a potential relationship but in order to validate this relationship a Chi-square test of independence was done since both variables are categorical. The hypotheses for the Chi-square test are as follows:

$H_{0:}$ *Sharing information online and protest attendance are independent*

$H_{1:}$ *Sharing information online and protest attendance are not independent*

In order to do a Chi-square test, a few assumptions must be met.

1. The two variables being tested must be categorical, either ordinal or nominal
2. The variables must be categorical independent groups
3. The expected frequency in any cell is not less than 5

All these assumptions were met and the test could be carried out.

The Pearson chi square (appendix table B.2) p value is .000, this value is less than .05, the significance value that was specified. The null hypothesis is thus rejected and it is concluded that there is a relationship between individuals sharing information online and attending protests.

After establishing that there is a relationship between two variables, it is important to know whether or not this relationship is significant in its strength. Cramer's V and the Phi are tests to determine the strength of association. The Phi value is considered for this hypothesis since the two variables are binary and the data matrix is 2x2 table. The phi value of 0 indicates independence and a value of 1 equals a strong relationship. Appendix table B.3 shows that Phi value is .410 indicating that the relationship is moderately significant.

4.6.2 Hypothesis 2

This hypothesis intends to find out if social network engagement, meaning individuals are interacting and engaging in the various options on these sites, is related to whether or not respondents are motivated to join a protest.

Both variables are categorical, so in order to test a relationship, Chi-square of Independence was done, as well as cross tabulation to look more closely into the relationship.

Chi-square hypothesis are:

$H_{0:}$ *Sharing content on SNS and inclination to join a protest are independent*

$H_{1:}$ *Sharing content on SNS and inclination to join a protest are not independent*

Appendix table B.4 shows the cross tabulation where it is possible to see that 62 percent of the sample answered yes to both questions. This means that these respondents were sharing relevant content online, and the information they saw circulating the social networking sites also made them more inclined to join a protest.

The chi-square test yielded a Pearson value of .000, which is less than .05 (appendix table B.5), validating that there is a relationship. The null hypothesis is rejected and it is determined the

two variables are dependent. This chi-square test also did not violate any assumptions, as all the expected value counts are above 5, the minimum being 14.64.

The Phi test was performed to determine the strength of the relationship. The value of Phi is .263, (appendix table B.6) which represents a weak relationship, but it remains significantly relevant.

4.6.3 Hypothesis 3

The objective of hypothesis 3 is to test whether resident country is related to the way respondents heard about the protest.

To determine a relationship, Chi-square test of independence was performed. The cross tabulation (appendix table B.7), shows that 32.5 percent of respondents from USA and Canada found out about the protest from the internet, 30.1 percent of respondents from the European Union found out about a protest from online resources, and only 12.4 percent of individuals from Outside of the EU, learned about a protest from the internet. However the cross tabs alone cannot determine a relationship. The chi-square hypothesis are as follows:

$H_{0:}$ *Resident country and how respondents heard about the protest are independent*

$H_{1:}$ *Resident country and how respondents heard about the protest are not independent*

The Chi-square statistic (appendix table B.8) is reported as .128 which is above the significance value of .05. The null hypothesis cannot be rejected and thus it is concluded that the two variables are independent.

To confirm the results, the strength of the relationship was analyzed. For these variables Cramer's V statistic was used, since the number of values in each variable was not equal.

Cramer's V is a value between 0 and 1, the closer the value is to 1, the stronger the association. The v value is .140 (appendix table B.9) meaning that the association between the two variables is very weak and is considered insignificant.

4.6.4 Hypothesis 4

Hypothesis 4 purposes to determine if there is an association between these two variables. For this reason a Pearson chi-square test of independence was done.

The Chi-square hypothesis are as follows;

$H_{0:}$ *Social media importance and how respondents heard about the protest online are independent*

$H_{1:}$ *Social media importance and how respondents heard about the protest online are not independent*

The Pearson chi square value is .03 less than .05 (appendix table B.11), indicating a relationship. We reject the null hypothesis and conclude that the variables are not independent. Appendix table B.10 also shows the cross tabulation for these variables. The cross tabs show that respondents who heard about the protest online were more likely to consider social media as either 'very important' or 'important'. This coincides with the results of the chi-square test.

Since the null hypothesis is rejected, the strength of the relationship must be tested. The data matrix is not equal for both questions and that is why the Cramer's V value is considered. Appendix table B.12 shows the Cramer's V is .227. This is not a strong relationship but it is moderately significant.

4.6.5 Hypothesis 5

On the basis of the social network theory and the research concerned with it, the previous hypothesis already proved that social media engagement and protest attendance are related. However, hypothesis 5 is intending to find a relationship between social media *presence* and protest attendance.

A chi-square of independence was done to determine if a relationship existed. The hypothesis for the Chi square are:

$H_{0:}$ *Frequency of checking SNS and protest attendance are independent*

$H_{1:}$ *Frequency of checking SNS and protest attendance are not independent*

Appendix table B.13 shows that the chi-square p value is .437 which is far greater than the significance value of .05. Therefore the null hypothesis cannot be rejected and concluding that these two variables are independent of one another.

The Cramer's V test that was done to verify the result. It confirms that there is not a statistically significant relationship. Appendix table B.14 demonstrates the Cramer's V at .115.

All the above tests confirm that H5 is rejected. Social media presence alone does not affect protest attendance.

4.6.6 Hypothesis 6

A cross tabulation was done of the two questions "In your opinion does the internet specifically, social media have an influence on the revolution?" and "Does the content, concerning the Ukrainian revolution, circulating social networking sites, make you more inclined to participate

in local offline protests/ movements?" This was done in order to compare the respondent's answers.

The cross tab (appendix table B.15) does not seem to show a relationship since 62.7 percent of the respondents answered yes to both questions, meaning that they believe the internet has an influence on the revolution and they are more inclined to join. However 23.6 percent answered that the internet has an influence however they are not inclined to join any protests.

To confirm what the cross tabulation suggests, a Chi-square test of independence was performed.

$H_{0:}$ *Social media influence on the Revolution and inclination to join a protest are independent*

$H_{1:}$ *Social media influence on the Revolution and inclination to join a protest are not independent*

Appendix table B.16 shows a Pearson chi-square value of .079 which is greater than the significance value of .05. The null hypothesis, in this case, cannot be rejected and it is accepted that the two variables are independent.

A phi value of .108 (appendix table B.17) confirms that there is no significant relationship, and thus H6 is rejected.

Chapter 5

Conclusion and Discussion

5.1 Conclusion

This research study intended to find out the types of relationships between social media and societal revolution. The data was gathered through a questionnaire administered online to individuals that were knowledgeable about the Revolution in Ukraine. The survey asked both qualitative and quantitative questions and the results were analyzed using the statistical program, SPSS 20.

The results of the analysis shows that there is a relationship between individuals who are active on social media and individuals who attend protests as well as the ones inclined to join a protest. This concludes that social media does, if fact, have an influence on the Revolution.

The qualitative questions showed that respondents often share content on SNS to inform others, to offer their own perspective on the issues, encourage others to join protest, etc.

Through other analysis it was also determined that there was a relationship between individuals who believe social media is important to them and through which channels (online or offline) they heard about the protest. Causation could not be proven, so it cannot be said if one variable causes the other. However there is a significant correlation so it is possible to conclude that social media does affect the way individuals learned about the protest, thus it has an impact on the Revolution as a whole.

Social media does not have an effect on protest attendance if individuals are just checking the social networking sites without being active. The statistical analysis proved that there was no relationships between how often respondents checked their SNS and protest attendance.

The outcomes of this study are important because they show that social media are not being idol while societal protest are going on, but are rather facilitating an environment where revolutionary ideas can spread and individuals can find out information not only about events but also about future protests.

5.2 Limitations

This research study has methodology and design limitation that may have affected the results and conclusions.

1. Sampling

The sampling method used was a non-probability sample, this means the data was not collected at random and therefore cannot be representative of the population. The survey collected the data mostly through various online social networking sites. However other limitations arise since social networking sites often have privacy controls such that the survey was not able to reach all the persons that it was sent to.

The online sampling method, although with many faults, was chosen because of its anonymity and accuracy of the responses. Previous research shows that because internet surveys draw from self-selected sample, meaning people choose whether or not to take the survey that has been sent to them, the results are more complete and accurate (Gosling, Vazire, Srivastava, & John, 2004). Because the topic of discussion was of sensitive nature is type of sampling method was preferred.

2. Coding Bias

The second limitation comes from researcher's bias when forming categories of the open ended responses. The open ended responses were interpreted and the categories were formed upon extensive evaluation of all the responses. Qualitative questions allow for a more in depth and meaningful responses while also allowing the researcher to understand why respondents answered in a certain way.

A high degree of caution was taken on the part of the researcher to limit bias, however as in every case where interpretation is needed some bias may exist.

3. Correlation vs. Causality

The data that was gathered from the questionnaire was mainly categorical thus forming the third limitation, in which causality between relationships has not been proven. Categorical data limits the types of statistical analysis that may be done. Quantitative categorical statistics performed in this research prove correlation but not causality. This means that variables X and Y are related but that does not mean that X causes Y or vice versa. However for the purposes of this research study categorical variables are enough to test the hypothesis and research questions that were presented.

5.3 Marketing Implications

Although this research study focused on societal revolutions and social media, it is still based on marketing principles and theories and therefore the research presented here can be applied to a corporate setting.

Some of the implications to marketing include:

1. Companies should interact with their consumers on social networking sites.

Social media is a platform where individuals share a lot of experiences and posts, companies that take advantage to be active on these platforms would benefit from a stronger connection with the consumers.

2. Companies should look to social networks to spot the new ideas and modify their business accordingly.

Just as in societal movements, marketing trends do not happen overnight but are rather built upon many occasions. Social networks are the first to display new trends and companies that watch SNS will always be ahead of the competition.

3. Social networking sites have the power to encourage certain actions and attitudes, companies might use this information to create a stronger campaign and increase store visit or purchases.

Movements can benefit the everyday consumer, by pressuring companies to change their product lines, or provide better treatment for their workers, etc. Social media can be used to first raise awareness of such issues, and then rally people to take some action thus forcing the companies to acknowledge their faults.

4. This research can be used in social marketing to understand how start and spread movements and encourage companies to change their behaviors.

Consumers and people have the power. The internet, via all the social media sites, allows for their voices to be heard and for them to gather in a collective form and bring forth changes.

5.4 Future Research

There is a great opportunity for further research on this topic. The topic of social media and societal movements has only recently gained the attention of researchers. The analysis of both of these studies together is relatively new and therefore greatly undiscovered.

Some suggestions for future research include:

1. Focusing more on individual social networks instead of social networks as a whole.

As mentioned in the research, SNS are all different and serve different purposes. It would be interesting to analyze how each social network functions in relation to posts about societal Revolutions.

2. Using more qualitative research techniques such as structured interviews.

This study was limited in both time and resources and thus preventing the researcher to administer structured interviews. However, this type of qualitative research can shed light upon individual motives, personal beliefs and experiences. Although qualitative factors were incorporated into this dissertation, there is always room for a more in depth study.

3. Research that does not only focus on protest attendance and social media but also variables such as volunteering, money donations, etc.

Societal revolutions incorporate many factors and all the factors play a part in the final result. It would be interesting to analyze how social media aids the revolution in other ways.

Bibliography

Agarwal, N., Lim, M., & Wigand, R. T. 2011. Collective action theory meets the blogosphere: A new methodology. ***Communications in Computer and Information Science***, 136(3):224–239.

Andrews, K. T. & Biggs, M. 2006. The dynamics of protest diffusion: Movement organizations, social networks, and news media in the 1960 sit-ins. ***American Sociological Review***, 71:752–777.

Anduiza, E., Cristancho, C., & Sabucedo, J. M. 2013. Mobilization through online social networks: the political protest of the indignados in spain. ***Information, Communication & Society,*** 17 (6): 750-764.

Backstrom, L., Huttenlocher, D., Kleinberg, J., & Lan, X. 2006. Group formation in large social networks: Membership, growth, and evolution: ***Proceedings of 12th International Conference on Knowledge Discovery in Data Mining,*** 44-54.

Barabási, A. L n.d., ***Network Science***. < http://barabasi.com/networksciencebook/>. viewed 13 November 2014

Barabási, A.L. 2002. ***Linked: The New Science Of Networks Science Of Networks.*** Cambridge, MA: Perseus Publishing.

Barabási, A. L. 2003. Scale-free networks. ***Scientific American Magazine***, 288(5): 60-69.

Barabási, A. L. 2009. Scale-free networks: A decade and beyond. ***Science Magazine***, 325:412–413.

Barberá, P., & Metzger, M. 2014***. Tweeting the revolution: Social media use and the #euromaidan protests***, Huffington Post, <http://www.huffingtonpost.com/pablo-barbera/tweeting-the-revolution-s_b_4831104.html>.

Barichello, E. M., & Carvalho, L. M. 2013. Understanding the digital social media from McLuhan's idea of medium-ambience. ***MATRIZes***, 7(1):235–246.

Barnes, J. 1954. Class and committees in a norwegian island parish. ***Human Relations***, 7(1):39–58.

BBC News. 2014. ***Ukraine crisis: Timeline,*** <http://www.bbc.com/news/world-middle-east-26248275>.

Bimber, B., Flanagin, A. J., & Stohl, C. 2005. Reconceptualizing collective action in the contemporary media environment. ***Communication Theory***, 15(4): 365–388.

Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. 2009. Network analysis in the social sciences***. Science***, 323: 892-895.

boyd, d. m., & Ellison, N. B. 2008. Social network sites: Definition, history, and scholarship. ***Journal of Computer-Mediated Communication***, 13(1): 210–230.

Brace, I. 2004***. Questionnaire design: How to plan, structure and write survey material for effective market research***. London, UK: Kogan Page.

Burt, R. S. 1980. Models of network structure. ***Annual Review of Sociology***, 6:79– 141.

Chandler, D.1995. ***Technological or media determinism***. < http://visual-memory.co.uk/daniel/Documents/tecdet/>.

Chesher, C. 2008. Binding time: Harold innis and the balance of new media. In H. Hrachovec, & A. Pichler (Eds.), ***Philosphy of the Information Society: Proceedings of the 30th International Ludwig Wittgenstein- Symposium, Kirchberg***, 7: 9-26.

Comor, E. 2001. Harold innis and 'the bias of communication'. ***Information, Communication & Society***, 4(2):274–294.

Cottle, S. 2011. Media and the arab uprisings of 2011: Research notes. ***Journalism: Theory, Practice and Criticism***, 12(5): 647-659.

Cox, R. W. 1995. Civilizations: Encounters and transformations. ***Studies in Political Economy***, 47: 7–31.

Diani, M. 2000. Social movement networks virtual and real. ***Information, Communication & Society***, 3(3): 386-401

Donath, J. 2007. Signals in social supernets. ***Journal of Computer-Mediated Communication***, 13(1): 231-251.

Ellison, N., & boyd, d.m. 2013. Sociality through social network sites. In W. H. Dutton (ed.), ***The oxford handbook of internet studies***: 151-172. Oxford, UK: Oxford University Press.

Emirbayer,M., & Goodwin, J. 1994. Network analysis, culture, and the problem of agency. ***The American Journal of Sociology***, 99(6): 1411–1454.

Fang, I. 1997. ***A history of mass communication: Six information revolutions.*** Burlington, MA: Focal Press.

Fathi, N. 2012. **Dispatches from an unfinished uprising: The role of technology in the 2009 iranian protest movement.** Discussion paper series no. D-75. Shorenstein Center on Media, Politics and Public Policy, Cambridge, MA.

Frost, C. 2003. How prometheus is bound: Applying the innis method of communications analysis to the internet. ***Canadian Journal of Communication***, 28(1).

Gerlach, L. P. 2001. The structure of social movements: Environmental activism and its opponents. In J. Arquilla & D. Ronfeldt (Eds.), ***Networks and netwars: The future of terror, crime, and militancy***: 289–309. Santa Monica, CA: RAND.

Gladwell, M. 2010. ***Small change: Why the revolution will not be tweeted,*** The New Yorker, <http://www.newyorker.com/magazine/2010/10/04/small-change-malcolm-gladwell>.

Gleason, B. 2013. Occupy wall street: Exploring informal learning about a social movement on twitter. ***American Behavioral Scientist***, 57(7): 966-982.

Goncharova, O. 2013. ***Ukrainians find help abroad in their struggles,*** KyivPost, <http://www.kyivpost.com/content/ukraine/ukrainians-find-help-abroad-in-their-struggles-332446.html>.

Goodman, S. 2011. ***The medium is the message and social media***, Venture Accelerator Partners, <http://www.vapartners.ca/the-medium-is-the-message/>.

Gosling, S., Vazire, S., Srivastava, S., & John, O. P. 2004. Should we trust web-based studies: A comparative analysis of six preconceptions about internet questionnaires. ***American Psychologist***, 59(2): 93–104.

Granovetter, M. 1973. The strength of weak ties. ***American Journal of Sociology***, 78(6): 1360–1380.

Granovetter, M. 1983. The strength of weak ties: A network theory revisited. ***Sociological Theory***, 1: 201–233.

Hampton, K., & Wellman, B. 2003. Neighboring in netville: How the internet supports community and social capital in a wired suburb. ***City & Community***, 2(4): 277– 311.

Harlow, S., & Harp, D. 2012. Collective action on the web. ***Information, Communication & Society***, 15(2): 196–216.

Innis, H.A. 1999. Introduction. In A.J. Watson, ***The bias of communication.*** Toronto: University of Toronto Press.

Johann, B. 2014. ***Opinion: Revolution of dignity in Ukraine,*** Deutsche Welle, <http://www.dw.de/opinion-revolution-of-dignity-in-ukraine/a-18077223>.

Johnson, R. B., & Onwuegbuzie, A. J. 2004. Mixed methods research: A research paradigm whose time has come. ***Educational Researcher***, 33(7): 14–26.

Johnson, T. J., & Kaye, B. K. 2014. Credibility of social network sites for political information among politically interested internet users***. Journal of Computer-Mediated Communication***, 19(4): 957–974.

Jones, P. 1998. The technology is not the cultural form: Raymond williams's sociological critique of marshall mcluhan. ***Canadian Journal of Communication***, 23(4).

Kaplan, A. M., & Haenlein, M. 2010. Users of the world, unite: the challenges and opportunities of social media. ***Business Horizons***, 53: 59–68.

Kapliuk, K. 2013. ***Role of social media in euromaidan movement essential***, KyivPost, <http://www.kyivpost.com/content/ukraine/role-of-social-media-in-euromaidan-movement-essential-332749.html>.

Kemp, S. 2014. ***Social, digital & mobile in europe in 2014,*** We are social, <http://wearesocial.net/blog/2014/02/social-digital-mobile-europe-2014/>.

Kennedy, J. B. 1926. ***When woman is boss: An interview with nikola tesla,*** Colliers, <http://www.tfcbooks.com/tesla/1926-01-30.htm>.

Kietzmann, J. H., Hermkens, K., McCarthy, I., & Silvestre, B. S. 2011. Social media? get serious! understanding the functional building blocks of social media. ***Business Horizons***, 54(3): 241–251.

Klandermans, B., & Staggenborg, S. 2002. Survey Research: A case for comparative designs. In B. Klandermans & J. Smith (Eds.), ***Methods of Social Movement Research***: 3- 31. Minneapolis, MN: University of Minnesota Press.

Kostelanetz, R. 1967. ***Understanding mcluhan (in part),*** The New York Times, <https://www.nytimes.com/books/97/11/02/home/mcluhan-magazine.html>.

Kumar, R., Novak, J., & Tomkins, A. 2006. Structure and evolution of online social networks. In ***KDD '06 Proceedings of the 12th ACM SIGKDD international conference on Knowledge discovery and data mining***, (pp. 611–617). New York, NY: AMC.

Laer, J. V., & Aelst, P. V. 2010. Cyber-protest and civil society: the Internet and action repertoires in social movements. In Y. Jewkes & M. Yar (Eds.), ***Handbook of internet crime***: 230-254. Devon, UK: Willan.

Laughey, D. 2009. ***Media Studies: Theories and Approaches***. Harpenden: Kamera Books.

Laughey, D n.d., ***Media theory,*** Laughey's Media Theory Blog, <http://danlaughey.com/media-theory/>. viewed 5 March 2015

Leech, N. L., & Onwuegbuzie, A. J. 2007. A typology of mixed methods research designs. ***Quality & Quantity***, 43(2): 265–275.

Leskovec, J. and Horvitz, E. 2008. ***Planetary-scale views on a large instant-messaging network***. Paper presented at the International World Wide Web Conference Committee, Beijing, China.

Lohr, S. 2012. ***The age of big data***, The New York Times, <http://www.nytimes.com/2012/02/12/sunday-review/big-datas-impact-in-the-world.html?_r=0>.

Lyushnevskaya, Y. 2014. ***Social media shape ukraine political debate,*** BBC, <http://www.bbc.co.uk/monitoring/social-media-shapes-political-debate-in-ukraine>.

Manovich, L. 2001. ***The Language of New Media***. Cambridge, Massachusetts: MIT Press.

Marshall, L. 1997. ***The world according to eco,*** Wired, <http://archive.wired.com/wired/archive/5.03/ff_eco.html>.

McAdam, D. 1986. Recruitment to high-risk activism: The case of freedom summer. ***American Journal of Sociology***, 92(1): 64–90.

McLuhan, M. 1962. ***The Gutenberg galaxy***. Toronto, Canada: University of Toronto Press.

McLuhan, M., Lapham, L. H. 1994. ***Understanding media: The extension of man.*** Massachusetts: MIT Press.

Melucci, A. 1996. ***Challenging Codes: Collective Action in the Information Age***. Cambridge, UK: The Press Syndicate of the University of Cambridge.

Meyer, D., & Whittier, N. 1994. Social movement spillover. ***Social Problems***, 41(2): 277–298.

Meyrowitz, J. 2001. ***Morphing mcluhan: Medium theory for a new millennium.*** Paper presented at Second Annual Convention of the Media Ecology Association, New York University.

Mislove, A., Marcon, M., Gummadi, K. P., Druschel, P., & Bhattacharjee, B. 2007**.** ***Measurement and analysis of online social networks.*** Paper presented at the 7th ACM SIGCOMM conference on Internet measurement, San Diego, CA.

Mitchell, A., Kiley, J., Goottfried, J., & Guskin, E. 2013. ***The role of news on facebook: Common yet incidental***, Pew Research center, <http://www.journalism.org/2013/10/24/the-role-of-news-on-facebook/>.

Myers, D. J. 2000. The diffusion of collective violence: Infectiousness, susceptibility, and mass media networks. ***American Journal of Sociology***, 106(1): 173–208.

Nayem, M. 2014. ***Uprising in ukraine: How it all began,*** Open Society Foundations, <http://www.opensocietyfoundations.org/voices/uprising-ukraine-how-it-all-began>.

Next Nature.2009. ***Essay: The playboy interview: Marshall mcluhan.*** <http://www.nextnature.net/2009/12/the-playboy-interview-marshall-mcluhan/>.

Oliver, P. E., & Myers, D. J. 1998. ***Diffusion models of cycles of protest as a theory of social movements.*** Paper presented at the Congress of the International Sociological Association, Montreal.

Olson, M. 1965. ***The logic of collective action: Public goods and the theory of groups.*** Cambridge, Massachusetts: Harvard University Press.

Opp, K., & Gern, C. 1993. Dissident groups, personal networks, and spontaneous cooperation: The east german revolution of 1989. ***American Sociological Review***, 58(5): 659–680.

Papic, M., & Noonan, S. 2011. ***Social media as a tool for protest,*** Stratfor Global Intelligence, <https://www.stratfor.com/weekly/20110202-social-media-tool-protest>.

Passy, F. 2003. Social networks matter. But how? In M.Diani & D. McAdam (Eds.), ***Social movements and networks: Relational approaches to collective action:*** 21-49. New York: Oxford University Press.

Popova, M. n.d., ***Uncovered gem: Marshall mcLuhan's global village,*** Brain Pickings, <http://www.brainpickings.org/2010/03/15/marshall-mcluhan-global-village/>. viewed 20 January 2014

Porta, D., & Mosca, L. 2005. Global-net for global movements: A network of networks for a movement of movements. ***Journal of Public Policy***, 25(1): 165–190.

Postman, N n.d., ***What is media ecology?*** Media Ecology Association, <http://www.media-ecology.org/media_ecology/>. viewed 20 October 2014

Postman, N. 2000. ***The humanism of media ecology***. Paper presented at Inaugural Media Ecology Association Convention, New York.

Postman, N. 2005. Introduction. In A. Postman, ***Amusing ourselves to death***. New York, NY: Penguin Books.

Postmes, T., & Brunsting, S. 2002. Collective action in the age of the internet. ***Social Science Computer Review,*** 20(3): 290–301.

Shaw, N. 1999. The method is the message: Rethinking mcluhan through critical theory, by P. Grosswiler. ***Canadian Journal of Communication***, 24(1).

Shirky, C. 2009. ***Here Comes Everybody: How Change Happens when People Come Together.*** London, England: Penguin Group.

Smith, D. 2008. ***Proof! just six degrees of separation between us,*** The Guardian, <http://www.theguardian.com/technology/2008/aug/03/internet.email>.

Smith, S. 2013. ***Determining sample size: How to ensure you get the correct sample size,*** Qualtrics, <https://www.qualtrics.com/blog/determining-sample-size/>.

Snow, D. A., Zurcher, L. A., & Olson, S. E. 1980. Social networks and social movements: A microstructural approach to differential recruitment. ***American Sociological Review,*** 45(5): 787–801.

Soules, M n.d. - a., ***Resonance and the global village,*** Media studies, <http://www.media-studies.ca/articles/echoland.htm>. viewed 14 January 2014.

Soules, M n.d. -b., ***Harold Adams Innis: The bias of communications and monopolies of power,*** Media studies, <http://www.media-studies.ca/articles/innis.htm>. viewed 19 January 2014

Stoll, C. 1995. ***Why the web won't be nirvana,*** Newsweek, <http://www.newsweek.com/clifford-stoll-why-web-wont-be-nirvana-185306>.

Strate, L. 2003. Neil postman, defender of the word. ***ETC. A Review of General Semantics,*** 60(4): 341–350.

Strate, L. 2008. Studying media as media: Mcluhan and the media ecology approach. ***Media Tropes***, 1: 127-142.

Stringer, T. 2001. ***The revolution will be televised.*** Paper presented at the Image and Empowerment at the American Anthropological Association Annual Meetings. New Orleans.

Talaga, T. 2014. ***How social media is fuelling ukraine's protests,*** The Toronto star, <http://www.thestar.com/news/world/2014/02/05/ukraines_revolutionary_movement_euromaidan_stays_organized_with_social_media.html>.

Tarrow, S. 2005. ***The new transnational activism***. New York: Cambridge University Press.

Tarrow, S., & McAdam, D. 2005. Scale Shift in Transnational Contention. In D.D. Porta & S. Tarrow (Eds.), ***Transnational Protest and Global Activism***: 121-151. Lanham, MD: Rowman and Littlefield.

Travers, J., & Milgram, S. 1969. An experimental study of the small world problem. ***Sociometry,*** 32(4): 425–443.

Tremblay, G. 2012. From marshall mcluhan to harold innis, or from the global village to the world empire***. Canadian Journal of Communication***, 37: 561–575.

Wasser, F. 1998. Current views of mcluhan. ***Journal of Communication***, 48(3): 146– 152.

Weinreich, N. K n.d., ***What is social marketing?*** Weinreich Communications, <http://www.social–marketing.com/whatis.html>. viewed 16 November 2014

Wellman, B. 1983. Network analysis: Some basic principles. ***Sociological Theory***, 1: 155–200.

Wellman, B. & Hampton, K. 1999. Living networked in a wired world. ***Contemporary Sociology,*** 28(6): 648-654.

Williams, R. 2003. ***Television technology and cultural form***. London: Routledge.

Wright, K. B. 2005. Researching internet-based populations: Advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services. ***Journal of Computer-Mediated Communication***, 10(3).

Yang, Z., Wang, X., & Su, C. 2006. A review of research methodologies in international business. ***International Business Review***, 15(6): 601-617.

Appendices

Appendix A: Questionnaire

The questionnaire was distributed on a free online survey platform called SurveyPlanet.com. The questions were presented one at a time, not to overwhelm the respondents. The respondents were sent a link, through social networking sites as well as email, which took them directly to the survey.

Along with a link to the survey the participants were also sent a message to inform them of the reason they were being invited to participate and of the goals of this research project.

The survey and introduction to the survey were written in both English and Ukrainian languages. The reason for this was to receive as many respondents as possible without the language barrier. Participants had the opportunity to click the link of their preferred language.

Below is a simplified view of the survey questions in both Ukrainian and English as well as the introductory message in both languages.

A.1 Introduction in English

Dear Respondents,

My name is Marta Khomko, I am a Master's degree student of ISCTE- Instituto Universitário de Lisboa (Lisbon, Portugal). This survey is conducted as part of the completion of a Master of Marketing Degree on the topic "Fueling the revolution: social media's role in societal revolutions." The purpose of this master's work is to showcase marketing not only as a business tool, but consider the possibility of utilizing marketing schemes to solve social problems.

Because you are a member of one or more Facebook groups that report and follow the events that are concerned with the revolution known as "Euro Maidan" or the Revolution of Dignity in Ukraine, I am kindly inviting you to participate in this research by completing the attached questionnaire.

The following questionnaire will only take 10-15 minutes to complete, please answer all questions honestly, providing as much detail as necessary. Thank you in advance for assisting me in this project. The survey results will be summarized and used to confirm or refute the idea that social media marketing, as an element, is contributing to the effective dissemination of information and public sentiment, from local to national and international level. I hope that my master thesis will give motivation to the further development of the subject.

If you have any questions or concerns, please do not hesitate to contact me at the numbers listed below.

This survey is anonymous.

Thank you for your cooperation.

Sincerely,

Marta Khomko

Email: mkhomko@gmail.com

Phone Number: +320470109980

A.2 Questionnaire in English

This survey will take approximately 10-15 min. to complete. It is completely anonymous so please answer honestly and with as much detail as you see fit.

Definitions to keep in mind when filling out the survey:

Social media: Is a communication form, such as online platforms through which individuals can create and share content.

1. Age

- 21 and under
- 22-34
- 35-44
- 45-54
- 55 and over

2. Gender

- Male
- Female

3. Marital Status

- Single
- Married
- Separated
- Divorced
- Widowed

4. What is the highest level of education that you have completed?

- Less than high school
- High school graduate
- Some college no degree
- Technical or associates degree
- Bachelor's Degree
- Graduate or professional degree

5. Occupation

- Student
- Employed for wages
- Self-employed
- Military
- Retired
- Unemployed

6. Which country do you currently reside in?

7. Have you followed the events pertaining to the Euro Maidan revolution that have happened in Ukraine?

- Yes
- No

8. Have you used the internet to search for information about the Ukrainian Revolution?

- Yes
- No

9. If yes, which online sources have you followed to get information on the Ukrainian Revolution?

10. Have you used social media to find out more information about the Euro Maidan revolution in Ukraine?

- Yes
- No

11. If yes, which social media websites have you used?

12. How important is social media in your daily life?

- Very Important
- Important
- Neither important or unimportant
- Of little importance
- Unimportant
- Does not apply

13. On average, how often do you check social media sites per day?

- Once per day
- 2-5 times per day
- 6-8 times per day
- More than 8 times per day
- Does not apply

14. Have you used the internet to post and/or share information on social media websites that pertain to the revolution?

- Yes
- No

15. If yes, where have you posted this information?

16. Why have you posted and/or shared content pertaining to Euro Maidan Revolution on social networking sites? (Click all that apply)

- To inform people about the events happening in Ukraine
- To encourage people to join meetings
- To encourage people to join protests/movements
- To invite people to sign petitions

- To invite people to join organizations or groups
- To offer a different perspective on the issue
- To offer support
- Does not apply
- Other (please specify)

17. Have you attended meetings, movements, rallies, or protests in relation to the events that happened in Ukraine, 2014 (Euro Maidan)?

- Yes
- No

18. If yes, where did the protest/movement that you attended take place?

- Outside of Ukraine
- In Ukraine
- Does not apply

19. Did you find out about the said protest, or meeting from the internet?

- Yes
- No
- Does not apply

20. If yes, from which internet source did you obtain the information? Please specify.

21. If no, how did you hear about the said meeting, protest, or gathering? Please Specify.

22. Does the content, concerning the Ukrainian revolution, circulating social networking sites make you more inclined to participate in local offline protest/movement happening in your country or in Ukraine?

- Yes
- No
- Other (Please Specify)

23. Do you follow conventional media channels such as the radio, the local or international news or TV or in print?

- Yes
- No

24. Is there a difference in content between social media and conventional media on the topic of the Ukrainian Revolution?

- Yes
- No
- Does not apply

25. If yes, how is the information different? Please specify.

26. In your opinion does the internet, specifically, social media have an influence on the revolution?

- Yes
- No

27. If yes, please list some ways that you think it has an impact on the development and progress of the Ukrainian Revolution?

28. Do you trust social media as a source of information?

- Yes
- No
- Other

Thank you for your participation!

A.3 Introduction in Ukrainian

Шановні респонденти!

Це опитування проводиться у рамках написання роботи на здобуття ступеня магістра за спеціальністю «Маркетинг» на тему «Розгортання революцій: вплив соціальних медіа на розповсюдження революційних настроїв». Метою даної магістерської роботи є, зокрема, представити маркетинг не лише як бізнес-інструмент, а розглянути можливості залучення маркетингових схем у вирішенні соціальних проблем.

Звертаюся до Вас із проханням відповісти на запропоновані питання, взявши за основу події Революції Гідності в Україні. Результати опитування будуть узагальнені та використані для підтвердження або ж спростування думки про те, що соціальні медіа як елемент маркетингу сприяють ефективному поширенню інформації, а також суспільних настроїв, із локального на загальнодержавний та міжнародний рівень. Сподіваюся, що моя магістерська робота дасть поштовх для подальшої розробки даної тематики в країнах Європейського Союзу.

Опитування є анонімним.

Наперед дякую за співпрацю!

З повагою,

студентка ISCTE- Instituto Universitário de Lisboa (Лісабон, Португалія)

Марта Хомко

A.4 Survey in Ukrainian

Це опитування займе близько 10-15 хв. для завершиння. Воно є повністю анонімним. Будь ласка, дайте відповідь чесно і з настільки детально, як ви вважаєте за потрібне.

При заповненні опитування майте на увазі:

Соціальні медіа: Є форма комунікації, онлайн -платформи, через які люди можуть створювати і розповсюджувати контент.

1. Вік

- 21 або нижче
- 22-34
- 35-44
- 45-54
- 55 або вижче

2. Стать

- Чоловік
- Жінка

3. Сімейний стан

- Неодружений/незаміжня
- Одружений/заміжня
- Розлучений/на
- Вдівець/Вдова

4. Ваша освіта

- Незакінчина середня
- Середня
- Незакінчина вища
- Вища (технічна)
- Диплом Бакалавра
- Диплом Магістра

5. Рід занять

- Студент/ка
- Робочий/Робоча
- Приватний підприємець
- Службовець
- Пенсіонер/ка
- Безробітний/ Безробітна

6. Ваше місце проживання:

7. Чи стежите Ви за революційними подіями в Україні (Євромайдан 2013-2014 рр.)?

- Так
- Ні

8. Чи використовували Ви Інтернет для пошуку інформації про українську Революцію?

- Так
- Ні

9. Якщо ***так***, то за допомогою яких засобів масової інформації (надалі – ЗМІ) Ви стежите за подіями, що відбуваються тепер в Україні (Революція, війна)?

10. Чи використовуєте Ви соціальні мережі для отримання детальнішої інформації про події, що відбуваються в Україні?

- Так
- Ні

11. Якщо ***так***, якими онлайн джерелами (веб-сайтами) Ви користувалися, щоб отримати інформацію про Революцію в Україні?

12. Як важливі вам соціальні медіа у вашому повсякденному житті?

- Дуже важливі
- Важливі
- Ні важливі чи неважливі
- Мало важливі
- Не важливі
- Мене не стосується

13. Як часто Ви перевіряєте інформацію про Україну в соціальних мережах?

- Раз в день
- 2-5 разів в днеь
- 6-8 разів в днеь
- Більш ніж 8 разів в день
- Це мене не стосується

14. Чи використовували Ви Інтернет для розміщення або поширення інформації, що стосується Революції?

- Так
- Ні

15. Якщо ***так***, то у яких соціальних мережах Ви розміщуєте цю інформацію?

16. Чому ви розміщуєте/ поширюєте інформацію що стосується Революції?

- Щоб інформувати людей про події, які відбуваються на Україні
- Щоб заохотити людей приєднатися до мітенгів
- Щоб заохотити людей приєднатися протесту
- Щоб запросити людей підписати петиції
- Щоб запросити людей приєднатися до організації або групи
- Щоб запропонувати свою перспективу
- Щоб підтримати людей
- Мене не стосується
- Інше (Будь ласка, поясніть)

17. Чи були Ви присутні на зібраннях, мітингах або акціях протесту, пов'язаних із революційними подіями в Україні?

- Так
- Ні

18. Де пройшла ця акція протесту або мітинг?

- За межами України
- На Україні
- Це мене не стосується

19. Чи дізналися Ви про це зібрання, мітинг або акцію протесту з Інтернету?

- Так
- Ні
- Це мене не стосується

20. Якщо ***так***, будь ласка, вкажіть, з яких веб-сайтів або соціальних мереж Ви отримали цю інформацію.

21. Якщо Ви дізналися про це зібрання, мітинг або акцію протесту ***не*** з Інтернету, то в який спосіб?

22. Чи інформація, що стосується української революції, циркулюючи сайти соціальних мереж, робить вас більш схильними до участі в протестах які відбуваються у вашій країні чи в Україні?

- Так

- Ні
- Інше (Будь ласка, поясніть)

23. Чи слідкуєте Ви за інформацією, що подається традиційними ЗМІ (телебаченням, радіо, друкованими ЗМІ)?

- Так
- Ні

24. Чи відрізняється інформація на тему Революції в Україні у соціальних медіа та традиційних ЗМІ?

- Так
- Ні
- Це мене не стосується

25. Якщо ***так***, то чим ця інформація відрізняється? Будь ласка, поясніть.

26. На Вашу думку, чи має Інтернет, зокрема, соціальні медіа, вплив на сучасні революції?

- Так
- Ні

27. Якщо ***так***, то назвіть, будь ласка, способи, якими, на Вашу думку, соціальні медіа впливають на революції.

28. Чи довіряєте Ви, соціальним медіа для пошуку різної інформації?

- Так
- Ні
- Інше

Дякуємо за участь в опитуванні!

Appendix B: SPSS Outputs of Hypotheses

Table B.1 Cross Tabulation

Use of the internet to share information * Have you attended protests or revolution Crosstabulation

			Have you attended protests or revolution		
			Yes	No	Total
Use of the internet to share information	Yes	Count	151	62	213
		% within Use of the internet to share information	70.9%	29.1%	100.0%
		% within Have you attended protests or revolution	93.8%	60.8%	81.0%
		% of Total	57.4%	23.6%	81.0%
	No	Count	10	40	50
		% within Use of the internet to share information	20.0%	80.0%	100.0%
		% within Have you attended protests or revolution	6.2%	39.2%	19.0%
		% of Total	3.8%	15.2%	19.0%
Total		Count	161	102	263
		% within Use of the internet to share information	61.2%	38.8%	100.0%
		% within Have you attended protests or revolution	100.0%	100.0%	100.0%
		% of Total	61.2%	38.8%	100.0%

Table B.2 Chi-Square Test for Independence

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	44.175[a]	1	.000		
Continuity Correction[b]	42.058	1	.000		
Likelihood Ratio	44.279	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	44.007	1	.000		
N of Valid Cases	263				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 19.39.

b. Computed only for a 2x2 table

Table B.3 Phi Test for Strength of the Relationship

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.410	.000
	Cramer's V	.410	.000
N of Valid Cases		263	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table B.4 Cross tabulation

Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement * Use of the internet to share information Crosstabulation

			Use of the internet to share information		
			Yes	No	Total
Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	Yes	Count	163	23	186
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	87.6%	12.4%	100.0%
		% within Use of the internet to share information	76.5%	46.0%	70.7%
		% of Total	62.0%	8.7%	70.7%
	No	Count	50	27	77
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	64.9%	35.1%	100.0%
		% within Use of the internet to share information	23.5%	54.0%	29.3%
		% of Total	19.0%	10.3%	29.3%
Total		Count	213	50	263
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	81.0%	19.0%	100.0%
		% within Use of the internet to share information	100.0%	100.0%	100.0%
		% of Total	81.0%	19.0%	100.0%

Table B.5 Pearson's Chi-Square Test

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	18.224[a]	1	.000		
Continuity Correction[b]	16.779	1	.000		
Likelihood Ratio	16.889	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	18.154	1	.000		
N of Valid Cases	263				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.64.

b. Computed only for a 2x2 table

Table B.6 Phi Test for Strength

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.263	.000
	Cramer's V	.263	.000
N of Valid Cases		263	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table B.7 Cross Tabulation

Resident Country * Did you find out about the said protest from the internet Crosstabulation

			Did you find out about the said protest from the internet		
			Yes	No	Total
Resident Country	Usa and Canada	Count	68	17	85
		% within Resident Country	80.0%	20.0%	100.0%
		% within Did you find out about the said protest from the internet	43.3%	32.7%	40.7%
		% of Total	32.5%	8.1%	40.7%
	European Union Countries	Count	63	20	83
		% within Resident Country	75.9%	24.1%	100.0%
		% within Did you find out about the said protest from the internet	40.1%	38.5%	39.7%
		% of Total	30.1%	9.6%	39.7%
	Countries outside the European Union	Count	26	15	41
		% within Resident Country	63.4%	36.6%	100.0%
		% within Did you find out about the said protest from the internet	16.6%	28.8%	19.6%
		% of Total	12.4%	7.2%	19.6%
Total		Count	157	52	209
		% within Resident Country	75.1%	24.9%	100.0%
		% within Did you find out about the said protest from the internet	100.0%	100.0%	100.0%
		% of Total	75.1%	24.9%	100.0%

Table B.8 Pearson Chi-Square Test

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.116[a]	2	.128
Likelihood Ratio	3.923	2	.141
Linear-by-Linear Association	3.652	1	.056
N of Valid Cases	209		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.20.

Table B.9 Cramer's V Test

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.140	.128
	Cramer's V	.140	.128
N of Valid Cases		209	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table B.10 Cross Tabulation

Did you find out about the said protest from the internet * How important is social media in your daily life? Crosstabulation

			How important is social media in your daily life?					
			Very Important	Important	Neither important or unimportant	Of little importance	Unimportant	Total
Did you find out about the said protest from the internet	Yes	Count	59	59	12	12	15	157
		% within Did you find out about the said protest from the internet	37.6%	37.6%	7.6%	7.6%	9.6%	100.0%
		% within How important is social media in your daily life?	81.9%	79.7%	52.2%	63.2%	71.4%	75.1%
		% of Total	28.2%	28.2%	5.7%	5.7%	7.2%	75.1%
	No	Count	13	15	11	7	6	52
		% within Did you find out about the said protest from the internet	25.0%	28.8%	21.2%	13.5%	11.5%	100.0%
		% within How important is social media in your daily life?	18.1%	20.3%	47.8%	36.8%	28.6%	24.9%
		% of Total	6.2%	7.2%	5.3%	3.3%	2.9%	24.9%
Total		Count	72	74	23	19	21	209
		% within Did you find out about the said protest from the internet	34.4%	35.4%	11.0%	9.1%	10.0%	100.0%
		% within How important is social media in your daily life?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	34.4%	35.4%	11.0%	9.1%	10.0%	100.0%

Table B.11 Chi-Square Test for Independence

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.723[a]	4	.030
Likelihood Ratio	9.916	4	.042
Linear-by-Linear Association	4.467	1	.035
N of Valid Cases	209		

a. 1 cells (10.0%) have expected count less than 5. The minimum expected count is 4.73.

Table B.12 Cramer's V Test

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.227	.030
	Cramer's V	.227	.030
N of Valid Cases		209	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table B.13 Chi-Square Test

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.721[a]	3	.437
Likelihood Ratio	2.717	3	.437
Linear-by-Linear Association	.153	1	.695
N of Valid Cases	206		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.38.

Table B.14 Cramer's V Test for strength of the relationship

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.115	.437
	Cramer's V	.115	.437
N of Valid Cases		206	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Table B.15 Cross Tabulation

Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement * Does social media have an influence on the revolution Crosstabulation

			Does social media have an influence on the revolution		
			Yes	No	Total
Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	Yes	Count	165	21	186
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	88.7%	11.3%	100.0%
		% within Does social media have an influence on the revolution	72.7%	58.3%	70.7%
		% of Total	62.7%	8.0%	70.7%
	No	Count	62	15	77
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	80.5%	19.5%	100.0%
		% within Does social media have an influence on the revolution	27.3%	41.7%	29.3%
		% of Total	23.6%	5.7%	29.3%
Total		Count	227	36	263
		% within Does the social media content, concerning the Ukrainian revolution make you more inclined to participate in an offline protest/movement	86.3%	13.7%	100.0%
		% within Does social media have an influence on the revolution	100.0%	100.0%	100.0%
		% of Total	86.3%	13.7%	100.0%

Table B.16 Pearson Chi Square Test

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.092[a]	1	.079		
Continuity Correction[b]	2.437	1	.118		
Likelihood Ratio	2.927	1	.087		
Fisher's Exact Test				.113	.062
Linear-by-Linear Association	3.080	1	.079		
N of Valid Cases	263				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.54.

b. Computed only for a 2x2 table

Table B.17 Phi Test

Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.108	.079
	Cramer's V	.108	.079
N of Valid Cases		263	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.