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**DIGITAL REVOLUTION: EUROPE AT THE
LEAD OF NEW TECHNOLOGIES**

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2016

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Keywords: internet, globalization, European Union, social media, eGovernment, eDemocracy

DIGITAL REVOLUTION:

EUROPE AT THE LEAD OF NEW TECHNOLOGIES

-Summary-

Prior to the commercialization of mass information and entertainment institutions as they are today, and before it was accessible to the general public, the internet was, since its very beginning, in the center of social interactivity. In the late 50s and as a military-centered initiative, the first computer networking and communications technology appeared in the United States of America. By early 70s, the first completed network, precursor of the Internet, was a reality. Yet, it was during the 1980s that the notion of social networking would make its first steps towards becoming the universal cultural phenomenon as we know it and make use of it in 2016. Our aim in this thesis is not only to ‘browse’ throughout the history of the internet as a tool, but to understand the key ideas behind its initial formation.

Social media has increasingly become a crucial part of the Internet, as a result of the interactivity and the social nature of the social networking platforms, lowering of geographical barriers for the average user enabling him not only to communicate, but also contribute to online information. Different from the one-way communication in most mass media channels, social media represents two-way communication between users. Social media has revived an older form of decision-making, established before the mass media era, based on the word-of-mouth. As the digital version of word-of-mouth, social media represents the materialization, storage, and repossession of word-of-mouth content online.

However, the large, anonymous and temporary nature of the internet encourages new ways of introducing, analyzing, interpreting and managing social media content. Several traditional theories, such as Psychological Ownership Theory, Social Exchange Theory, Social Penetration Theory and Social Network Analysis among others, constitute valid tools for the current thesis, which aim is to study and explain how people form networks and use them in order to pass information to each other in the European Union. The purpose of this study is to provide a spherical overview of the theories covering the subject of internet and social media, including the dimensions and variables studied by various researchers of diversified disciplines, as well as their proposed conceptual models. Social media have not caused newfound changes to technological fields only, but to the academia as well. Social theories of international relations, political organizations and governance, psychological approaches to human behavior and social communication theories awoken to the new social realities, which call for understanding. To understand how researchers' adopted theories, used traditional models and developed new concepts for the study of social networks, we will elaborate a holistic literature review based on four criteria outlined below. A collection of theories from the four fields largely affected by the social media rapid evolution is summarized in this thesis, in order to provide a comprehensive framework.

The social process of globalization has been long debated during the past decades. The critics of globalization focus on the constraints imposed on governments by international markets and organizations and the limitations of the global civic society and social policies. This thesis argues that social media have altered the evolution of globalization and increased the process of civic and political participation, during the process of globalization. There are several effective ways of using the internet as a global tool of outreach. Social media and networking tools have been extremely effective towards political and social change, as evidenced by political unrest case studies in the Middle East. In this thesis, we will discuss how globalization has been enforced by the use and development of the internet. Furthermore, we will see how social media tools facilitated the process of democratization and how they affected political activism and challenged traditional societies in the Arab world. Arguably, the powerful impact of social media continues to challenge global politics. However, it remains to be seen whether they will become the 'driving force' of globalization themselves.

The understanding of the internet and cyberspace from a comparative cultural perspective is the key for understanding and developing digital life. The thesis suggests a consideration of

the cyberspace by exploring the different cultural aspects of cyberspace. The cyberspace will be examined in four main cultural levels, each of which pervades a different type of power. Firstly, when cyberspace is understood in a cultural geography context, then cyberpower is not only quantifiable, but a notion that can be approached through people's experiences, just like 'reality'. Cultural anthropology of space and cultural geography can help us examine this technical field as a space of key human activities. Secondly, when cyberspace is examined from a design point of view, the visual culture approach acknowledges the reality of two different social systems. Our research on visual content and its cultural meaning will demonstrate the differences in the American and predominant European forms and codes. Thirdly, we will look at the cyberspace as being a society or 'digital nation', where cyberpower reveals how individuals recognize in each other a social commitment to virtual life. A cultural approach will provide us with indications of social attitudes towards the internet and politics, but it will also weight people's involvement into politics and public affairs, especially when it comes to electoral behavior. Again, the American and European political cultures set a different tone in politics. Fourthly, we are interested in the exercise of religion and spirituality on the cyberspace, which will offer a greater knowledge of the impact of ICTs on religious traditions, beliefs and individuals. Finally, we will address issues of international politics, as challenged by the dynamic emergence of the internet in the two continents and in the global stage. This approach will demonstrate effectively the difference in strategic thinking between the two cultural zones. The outcome of this research and analysis is expected to demonstrate that cyberspace is driven by a number of sociological, cultural and political elements that customizes the uses of the internet, based on its context.

The pace and scope of changing technologies are constantly challenging social structures and the need for dexterous policy framework is becoming more and more indispensable. While technological evolution and market forces have driven the information and communication revolution, the European Union has played a significant role in creating an effective framework for the maintenance and development of this progress. In order to regulate the market and keep pace with the ICT (Information and Communications Technology) environment, the EU has introduced rules that ensure fair access to all EU citizens and stimulate competition for companies. The Body of European Regulators for Electronic Communications (BEREC) serves entirely this function, becoming a pan-European regulatory agency. Aside the regulatory role, EU's economic growth strategy involves a great number of policies and measures to capitalize on digital revolution. The Digital Agenda for

Europe (DAE) targets not only on citizens, but businesses of Europe as well, to benefit from the technological revolution. The former and the new goals of the renewed agenda raise the bar of smart, sustainable and inclusive growth. Finally, to ensure the maximization of use of information technologies, EU has supported the expansion of e-business and online public services. eGovernment services have facilitated interaction between government, citizens and businesses, while it simplified all facets of operations of governmental organizations.

This thesis is looking at EU's role in digital environments, examining the three initiatives as platforms of technological evolution in Europe. The three case studies used, the BEREC, DAE and eGovernment, eDemocracy and eParticipation initiatives, will provide an analysis of the services with a prospective evaluation of the technological strategies involved, while the qualitative and quantitative data in each case will help us analyze the quota and draw conclusions on the functionality and effectiveness of the services. We expect to evaluate the levels of digital growth and online adaptation of the European Union and/or the need for further expansion. The study is discussing EU's technological competitiveness and the analysis targets the policy initiatives taken towards this direction, while it provides multipolar, but useful information for EU citizens and businesses.

Today, Information and Communication Technologies have developed to the extent of amplifying political procedures that are central to the contemporary civic society, such as political participation and citizen engagement. eParticipation is a multidisciplinary field of study, which is particularly relevant in several contexts and environments, e.g. digital democracy, public services, open government, popular social media etc. This thesis addresses the eParticipation framework in the European context, during the last 10 years. Our research will explore theoretically and empirically how citizen participation is achieved through social media and digital public services. The thesis explores both the cultural and political environments that favor the development of eParticipation initiatives, with the study of networking interactions based on social and public policy initiatives. We are particularly interested in the public policy formulations that embrace eParticipation and most importantly the recent developments in the field, which include a number of eConsultation, ePolling, eLegislation, eElectioneering, eVoting etc. A review of the good practice examples in eParticipation policy development will help us identify the strengths and weaknesses of the digital framework. Within the context of social value, we want to explore the aspect of eParticipation in the broader political scene, by examining the role of digital participation in political crises. By drawing examples based on case studies of public policy formulation in

European countries, the research suggests a correlation between digital innovation and challenging politics. The framework is originally designed to be sustainable for the European societies and it places citizens in the center of its conception. It is, however, argued that the interaction between public policy innovation and citizen engagement needs continuous scholarly attention and study.

eGovernment is not just a government service on the Internet. The strategic nature of the service relies on the objective of simplifying communication between all parties of the society: government, citizens and business. The use of ICTs can help to connect all three parties and facilitate processes and activities that support their connectivity. Therefore, eGovernment encourages good governance. However, with the nature of ICTs constantly changing, the subsequent economic and societal impact in Europe is diversified. Continued technological progress has led to a societal acceptance of the new technologies, amount to a step-change in what ICT can achieve. Rapid technological developments have altered the level of government engagement within the society. Our point of interest, European societies, has demonstrated diversified levels of government and citizen engagement. For some EU countries' citizens, interaction with the government through online facilities is not a novelty. However, to achieve the same level of efficiency and flexibility for all the EU member-countries is going to be challenging. The experience from the eGovernment services in the European Union shows that the willingness to decentralize procedures and mainly responsibility, and upgrade the role of electronic means, can strengthen governance. Our case study from Europe 2020 will showcase the dynamic shift of political direction towards flexible public services. The diversity of eGovernment implications in the European Union remains exceptionally interesting. This thesis is going to examine the political issues related to governance in the European Union, from the perspective of democratic governance. Additionally, it will observe how far the European countries have been successful in implementing the EU's action plan. In order to identify the current status and the progression achieved so far in EU, with regards to the eGovernment area, specific reference is being made to the open government approach, attempting to identify the level of political creativity originated in the Europe 2020 Initiative. The thesis argues that there are diverse speeds and levels of policy adaptation within the EU.

Increasingly more studies examine the correlation between Information and Communication Technologies and eDemocracy, which roughly describes online citizen engagement and participation in public policy. A new generation of electronic services has revealed its

potential to meeting the requirements of modern democratic societies in the European Union. This thesis will focus on the aspects of eDemocracy closely related to the EU initiatives and the progress made in member-states. With an EU urging its members for more participation in the 2020 strategic planning of eGovernment services, more than a numerical examination of the political initiatives undertaken is desired here. Focusing on the types of online tools in use will contribute to the identification of issues that have to be prioritized in an eDemocracy service delivery system. Based on our literature, a four-perspective framework will be used to evaluate eDemocracy processes. This framework involves the following aspects: typology, legislation, security and legal challenges. Typology will help us understand the concept in regard to which technology it refers to, which form of democracy is preferred and which dimension of political participation is (or believed to be) closer to democracy. Legislation is important to understand which citizen-oriented rules and regulations are embedded to the operational and quality framework of eDemocracy. Security is, also, crucially connected to the quality evaluation of the existing initiatives. By considering the security and legal challenges we intend to address the conditions for devising even better methods of mobilizing and managing the emerging resources. Finally, we offer a short overview of implemented and pilot eDemocracy projects in Europe, which serve as good practice examples administration models. In conclusion, we argue that there is a need to reflect on the potentials and realistic perspectives of eDemocracy applications to contribute to the democratic practices of the unfolding political system of the EU and the European public sphere.

Since the commercial success of a social network depends heavily on the number of users it attracts, there is pressure on providers to encourage design and behavior that increase the number of users and their connections. Such commercial and social pressures have led to a number of privacy and security risks for social networks users. Privacy in social networks is one of our concerns in this thesis, including the role of the main actors, i.e. the providers and the users. This thesis will emphasize the commercial and social benefits of a safe and well-managed use of social networks, by presenting the EU's legal and political framework on social networking.

As a member of the European Union and given the fact that this thesis is defended in Romania, we considered as being very important to insert relevant issues for Romania, such as evolution of the internet, internet legislation and Digital Agenda for Romania, in order to emphasize the efforts made by our country in order to align to the European standards.

ITC has created new and effective channels to exchange information, increasing global integration. Defined as the network of networks, the Internet can help us understand and interpret the environment we live in.

The first chapter draws the timeline of the internet, introducing key moments from their very beginning until today phenomenon. We have done the presentation of the general context of the internet and social media, and their impact, on a global scale, defining what cyberspace means for the European Union and the United State of America, showing how the digital hegemony has suffered changes. As protests around the globe received international momentum through the use of social media during the past few years, we examined the function of the internet in the processes of democratization and globalization, providing relevant examples from the Middle East, which were considered the roots from the later significant progresses in the field.

The second chapter provides a spherical overview of the theories covering the subject of internet and social media, including the dimensions and variables studied by various researchers of diversified disciplines, as well as their proposed conceptual models. Social media have not caused newfound changes to technological fields only, but to the academia as well. Social theories of international relations, political organizations and governance, psychological approaches to human behavior and social communication theories awoken to the new social realities, which call for understanding. To understand how researchers' adopted theories, used traditional models and developed new concepts for the study of social networks, we elaborate a holistic literature review based on four criteria outlined in four sub-chapters. The first sub-chapter examines theories connected to the psychological approach of social media, discussing theories as: the Social Information Processing theory (SIP), Social Identity model and Deindividuation Effects (SIDE), Psychological Ownership Theory, Social Exchange Theory, Social Penetration Theory and Social Network Analysis.

The second sub-chapter takes on a transnational perspective, focusing on the global character of social media by identifying theories taken from the field of international relations (IR). The social dimension of globalization will be considered for explaining the movement of ideas, information, images and people. The changing nature of the international relations nowadays will be analyzed through the cyberspace operations, which must be excessively planned in order to ensure cohesion with political and military objectives.

The third sub-chapter provides a structured review of the governance-oriented intellectual attainment with a clear focus on the discussion about the development of the eGovernment framework. The sub-chapter highlights the main elements of the concept of eGovernment, a hierarchy of types of governance, as well as its means of development, including here working theories, paradigms and case studies. The fourth sub-chapter presents the prevailing theories of communication and media, Theories of Communication Networks, Information Manipulation Theory, The Medium Theory and Media Richness Theory.

The third chapter discusses why it has become crucial for the EU to approach internet governance and the aspects that are to be considered within this goal, public authorities and the internet's restrictive framework. The chapter is divided as follows: the first sub-chapter is occupied with the regulating function of the EU and the practical role of the Body of European Regulators for Electronic Communications (BEREC) as a regulative body. The second sub-chapter will look into the EU's economic strategy with a focus on the Digital Agenda goals and initiatives. In sequence, the third sub-chapter will explore EU's activity to maximize information technology's use among the EU states, taking e-Government as an example of technological capitalization. Ultimately, the chapter is discussing EU's technological vision as much as the potential for technological innovation, which is extremely of useful not only for EU business but EU citizens as well.

The fourth chapter highlights the progression, advancement and potential of eDemocracy eParticipation and eGovernment services in the European Union. The internet has opened up new opportunities for political engagement, thus, the generous possibilities that ICTs offers for all the subareas of eDemocracy will be discussed (eParliament, eLegislation, eJustice, eMediation, eEnvironment, eVoting, eConsultation, eParticipation, eInitiatives, ePetitioning, eCampaigning, and ePolling/eSurveying), with an emphasis on eParticipation. We will then discuss the European Action Plan within the Digital Agenda and the provision of eGovernment services. The empirical section formulates a case study that introduces the Open Government approach, which help us draw conclusions on the EU planning regarding online public services.

The fifth chapter tackles specific data protection issues in the European Union, focusing on the role of the relevant actors: the European Commission, the European Parliament and the European Union Agency for Network and Information Security as the official voice of the European Union on the matter. The chapter mentions anti-threat strategies and

recommendations for the future of the internet, of the social networks, underlying the responsibility of information security professionals, the governments and other intelligence agencies to advance new tools and increase security that prevent the future potential risks, such as likability from image metadata, difficulty of complete account deletion, spam, cross site scripting (XSS), viruses and worms, infiltration of networks, or bullying and corporate espionage. We will also check the moral context of anonymity in a contemporary digital community, probing issues of personal rights, anonymous journalism, and accountability in online trolling cases, security complications and regulatory adjustments to the new reality.

The sixth chapter signalizes the most relevant issues for Romania: evolution of the internet, internet legislation and Digital Agenda for Romania, while the previous chapters had the European Union as the core of the research. The chapter reviews the internet actors in Romania, the institutional cooperation, emphasizing the strong efforts that the Romanian authorities made to accommodate the provisions of the Digital Agenda for Romania and create an actual change.

The last part, **the conclusions**, highlight the findings of the study and, at the same time, the chapter makes useful recommendations for further researches, based on gaps that the author identified in the available literature.

Analyzing the mentioned initiatives as case studies (Body of European Regulators for Electronic Communications (BEREC), the Digital Agenda with a focus on the Digital Single Market and the eGovernment platform, followed by eDemocracy and eParticipation), with an amount of collective data in our disposal, it becomes easily understood that the direction towards technological growth is positive. From a regulatory point of view, EU has been through an institutional change that helped to ameliorate the regulatory framework under which telecommunications have been functioning in Europe. It has become clear that the BEREC has set out a more active and resourceful schema to maximize networks and services' access. An important step towards internet open to all was made, even though the full range of activities converged telecoms have to offer are partly unexploited. The economic strategy involving the EU Digital Agenda and its various targets has been designed with great prospects. All together, we observed, by the statistical data that the digital market has indeed developed over traditional market segments (such as traditional advertising or commerce), while the use of internet among people and business was increased.

eGovernment services have been studied as a form of maximization of technological use in public administration. In this area, the progress still lags behind considering other sectors, not only due to software features, but too often due to a lack of willingness and trust from the citizens. What has, though, become clear is that for all digital fields to be properly exploited and developed, the EU needs to take the prospects of the telecommunications sector seriously. Additionally, the assessment of such services that will determine the future target should take into changing economic and socio-cultural environment within which EU policies operate, and not designed outside of it. The European Union should ensure that all reviews set an ambitious agenda to unleash further Europe's potential to invest and innovate at continental and global levels, and inspire creative leadership accordingly.

In this thesis, we covered a number of perspectives (political, technical, and regulatory) that view the development of online services from a governmental portal. Our effort was to explore the aspects and scopes that influence the quality of the offered services and the consequential satisfaction of the citizens.

Europe has demonstrated the ability to address the challenges ahead. This is already happening, through the number of ambitious actions plans since the beginning of the 21st century, which led the European states in the information age. However, there is still need for a more synchronized approach. Europe's future lies in the hands of its citizens. National initiatives bear, always, huge importance for the direction and development of policies, but a coordinated pan-European direction will increase Europe's global leadership. At the same time, information age societies should be able to facilitate the will of their citizens. Democratic outcomes should be taken into consideration in forthcoming eGovernment efforts and funding.

The continuous development of eGovernment training programmes for public services and business, the promotion of online learning and orchestrated communication efforts to raise awareness on the social benefits of eGovernment will help to gradually build social trust, which will allow eGovernment to grow further in Europe.

Lately electronic participation has evolved enough to start re-engaging citizens with the democratic processes by exploring the potential of ICT in the public sector. At the academic level, a number of frameworks have helped us to understand eParticipation, through the most familiar disciplines and social initiatives that approached contemporary models. At the practical level, a large number of eParticipation initiatives have been launched, some with

larger success than others. It can be concluded from the research that there is increasing activity in the field of eParticipation in Europe, as well as there is a number of exceptional initiatives already implemented and fully operational. However, there are still many opportunities to be explored and a lot to be achieved with the cooperation and sharing of good practice between countries and regions, but also across the different levels of participation (Panopoulou et al, 2009). In conclusion, the use of social media for increasing eParticipation can be a valid, cost-effective way to establish participation in policy projects, by promoting them as part of people's everyday lives.

Yet, one of the greatest challenges to eParticipation is the fear of unfulfilled expectations. Based on Hirschman's model it appears that eParticipation models alone are no solution for the problem of public distrust of political institutions. Citizen participation may be successful in the promotion of loyalty only if the use of the participation leads to reform; when participation seems pointless, the result is simply disengagement (Hirschman, 1994). From this perspective, governments seeking to implement eParticipation will be successful only if citizens' willingness to trust the eParticipation process can be sustained, and if the system has notable effects on the legislative decision-making process. Thus, the government's willingness to take eParticipation initiatives to the next level should be evaluated not only on the basis of planning and implementing such opportunities, but indeed taking into consideration the outcome of citizen participation. In that matter, citizens are concerned by the extent to which their participation counts as important. This empirical conclusion could be the basis for further consideration of the prospects and restraints of eParticipation. It should be further examined whether eParticipation can indeed essentially involve the public and in what ways this could be achieved. Hopefully, the research presented in this thesis will contribute to the future work and research of eParticipation developments and will facilitate the transfer of eParticipation good practice.

The potential of eDemocracy has been long debated at an international level, since the sweeping domination of ICTs in contemporary societies. Europe, having discovered the necessity for reforms which include advanced digital agendas, has set new priorities, which include the exploration of digital opportunities in a political and social level. The member-states of the European Union have taken considerable steps in their national capacities to unveil the potential of eDemocracy, and have adapted - though, in great divergence of speed - important initiatives to the benefit of their civil societies. In this thesis, we examined a number of initiatives through their theoretical promise and their practical implementation and

we were positively surprised by the acceptance and mobilization of a number of countries towards electronic participation. However, we also came across the legal and security requirements of the purposeful implementation of eDemocracy.

The good practice cases demonstrate that the contribution from citizens, guaranteed through activities at two levels of involvement, involving both the government and the citizens, has real consequences. In the future, we should expect more ICT-accelerated competition among the various political forces in the society, which will inevitably result in more eDemocracy development. The increasing eDemocracy evolution that we are experiencing projects roles, interests, and actors which are not yet well understood. The possibility to influence its development for the better in the future remains, and it should be reinforced through continued study and analysis of the social phenomena.

Due to its global nature, social media can influence the EU's image on the global stage. Whenever you post on Twitter, it is not just reaching the Brussels crowd, but a more global audience, which can be potentially engaged in your messages. The social media have the power to bring the world closer; Europe has the opportunity to reach out to populations that live outside its borders, and even though they will not vote for MEPs, they will learn more about Europe and its values.

In this thesis, we wanted to reflect on the main ethical considerations surrounding online anonymity. We would avoid to conclude whether anonymous or pseudonymous communications on the internet should be banned or not. What this research has indicated is that the online interactions context is complex enough for drawing fast conclusions. Although the debate about the extent to which anonymity on the internet is ongoing, evidence seems to favor online anonymity in accordance with internationally developed principles of human rights. Public policy should develop the means to decide when verification of identity is or is not appropriate and various intermediary mechanisms that offer pseudonymous solutions, but not full exposure. No matter what action is taken, there will be gains and losses. The continuation of empirical research, policy and ethical analysis are as important as the content of suggested solutions.

The impact of the internet on people is increasing. Social media competitive advantages have evolved to include business developments, public relations, human resources, and market finance in general. How social networks are socially explained and how their characteristics affect specific systems of social relationships was our goal in this research. In this thesis we

have discussed various theoretical approaches to the phenomenon of social media, both from a network and media perspective. The selected theories in this thesis demonstrated the most predominant research constructs that researchers have adopted to showcase the fields that have been affected by the swiping influence of social networks. Notably, social theories in terms of social influence and psychological approaches when it comes to user behavior appears in key positions of the framework.

We examined theories linked to social media from four different dimensions. The first section provided a psychological approach of social media, the second section offered an international perspective of the phenomenon, utilizing IR theories such as globalization and peacekeeping models, and considered the evolution of cyberwarfare through social media. The third section was a review of internet governance theories, with a focus on internet architecture and institutionalism, while in the fourth we were occupied with theories of communication and media. The findings lead to the conclusion that the use of social media involves several socio-psychological factors, such as media perceptions, personal attributes, language and culture in general, self-presentation and disclosure, and systemic factors, such as norms of governance or decision-making procedures. Thus, research is bound to involve social theories in various areas. User characteristics, particularly in terms of user perceptions that demonstrate online culture, are very important variables that researchers need to analyze in relation to the outcomes of their research. Social psychology has provided a key analysis on user interactions, because researchers have aimed to examine how the social media environment affects user intention and vice versa. Other key areas, such as international dynamics, cultural differences and systemic approaches have received adequate research and analysis, in relation to social network developments.

At the same time, we pointed at numerous research gaps and proposed potential research directions for these areas. The social psychology points at key aspects of research that analyze local factors and media interaction, the individuation effect of people, the ways and motivation of people who use social media which need to be further developed. Additionally, the study, involvement and utilization of social media in peacekeeping procedures will be highly advantageous for organizations like the United Nations, and potentially the non-proliferation of cyberwars. Additionally, internet governance and the user involvement from a neo-institutional dimension requires further attention. Lastly, further research is needed to determine the many attributes of social media and the information richness that they provide

to users. Future research should look into social media holistically and provide answers and suggest ways to enable sustainable growth of the social media market in the years to come.

Social media data is a new type of social data and it is more complicated than common social theories data. New social theories can be discovered based on social media data to make meaningful progress on important problems in social media, however, that progress requires serious engagement of both computer scientists and social scientists (Tang et al, 2014). The social and behavioral sciences provide a good insight in the development and directions of multidimensional networks. However, the methodology of a multidimensional network can be useful to improve and develop other general theories and frameworks, as well (Pan & Crofts, 2012).

Additionally, the methodology of behavioral online data can authenticate the social graphic and inform marketers on different ways on how to influence their customers. More and more, academics are designing and implementing research interventions on social network, to learn how these interventions may affect user behavior, knowledge, attitudes and psychological health. Online games are an example of research intervention. However, the ability to extract user data, sensitive personal information and behavior patterns poses challenges and deserves closer ethical analysis. “Given the unprecedented ability of online research using social network sites to identify sensitive personal information concerning the research subject and the subject's online acquaintances, researchers need clarification concerning applicable ethical and regulatory standards” (Ossorio, 2013). "Regulators need greater insights into the possible benefits and harms of online social network research, and researchers need to better understand the relevant ethical and regulatory universe so they can design technical strategies for minimizing harm and complying with legal requirements” (Ossorio, 2013). Data availability remains an exigent problem for social scientists.

The data required to address many problems of interest to social scientists are still difficult to assemble and there was a difficulty in collecting observational data of hundreds of millions of individuals (Tang et al, 2014). Social media provides a virtual representation of users' activities and makes it feasible for social scientists to observe social behavior and interaction of hundreds of millions of users. Future research needs not only more studies to combine data with behavioral study, but to adopt a multidimensional analysis, as well. If traditional approaches can add limited value to online research subjects, researchers and regulators should emphasize on other aspects of research ethics, such as using reasonable approaches to

minimize research risks. Moreover, researchers should seek out for innovative methods for generating transparency around the research enterprise.

Multidimensional social media analysis can result in profound perceptions of the social media phenomenon and impact on the business (Pan & Crotts, 2012). Hence, the engagement of both computer and social scientists in social media study would be truly beneficial for the understanding of the field. Computer science could make use of social theories to extract social data and provide better interactive tools for social scientists, while social science can utilize computational instruments and ideas to handle the volume of data and develop new social theories. All in all, the social nature of SNSs calls for new techniques and tools, and promotes a new field, the social media mining (Tang et al, 2014).

Overall, this thesis aims to contribute to the discussion about bridging social media practice with social theories. In general, social media remains a challenge for social researchers. While relevant studies have been available from the past decade, connecting social media to established social phenomena of the past, more targeted research has been (and is) needed to provide more detailed conclusions. We have reviewed the available literature on social network research and formed a theoretical framework that links social research models and social networks adoption. In terms of qualitative results, we completed a review of highly relevant theories to reveal the researchers' focuses on social media and their key findings, which can be used for further research in this subject area. In terms of quantitative results, we incorporated the various models used by the aforementioned approaches, which completes a holistic summary and allows readers to understand the body of research conducted in the past and that has been linked to social media. Furthermore, we suggest that future research in this direction should go beyond the technological aspects of social media and incorporate social theories, which will help social media scholars to analyze relevant topics in this area.

Also, the aim of the present thesis has been to provide the reader with an overview of the topic of "Internet governance", clarify the distinction between this term and that of "eGovernance", and provide examples of the manner in which the first evolved through time and space. Thus, the author provided definitions to both terms of "governance" and "Internet governance", followed by other aspects pertaining to their development. As far as "governance" is concerned, the definitions provided by the author came especially from the field of political science and philosophy, starting with how Aristotle and Montesquieu viewed governance and ending with the more pragmatic views espoused by the Institute of

Governance in 2015. With regard to these definitions, the author highlighted the difference between “governance” and “government”, emphasizing the latter as the body with the proper authority to take decisions concerning the society and thus influencing the manner of governance. Combining political science and philosophy, the author has brought into discussion the analysis of the concept as made by Michel Foucault, which led eventually to the term of “governmentality” being introduced in the discussion. Afterwards, several types of governance have been presented, in an effort to highlight the fact that governance is not just connected to the political sphere, but can also be referred to in relation to the corporate sector, the environmental one, as well as the Information technology one. These multiple types of governance can be verified by a series of measurement tools that can apply differently, depending on the field which they refer to. Examples of such tools are the World Governance Index and the Sustainable Governance Indicators, among others.

With regard to “Internet governance”, the author has presented in great detail several definitions of the concept, but also chose to elaborate more on the principles lying at the foundation of Internet Governance, as they were produced by the Council of Europe and which need to be respected by all countries, organizations and bodies. In the 21st century, it is a fact that Internet governance is no longer a moot issue, but rather an active one as suggested by its many threats: cybercrime, network security, intellectual property rights, etc. Consequently, the actors dealing with Internet governance, in order to ensure that such threats are repressed, are multiple and appropriate in dimensions to the threats: the state, the public and technical societies, the business sector, international organizations, ranging from the more specialized ICANN to the more generic UNDP, as well as individuals.

While the theory part depicts on classical views on governance, simply to extend them later to the aspects of “Internet governance”, the paradigm part was intended to be a more practical one and present, in concrete cases, the evolution of the topic. In this sense, in some cases, the approach is a chronological one, highlighting the old threats in comparison with the newer ones. The choice of particular paradigms was not a casual one. For instance, in the American case, the author presented the route of the many administrations in their effort to privatize and commercialize the Internet. In the Chinese case, the author emphasized the interference of American authorities in the efforts to liberalize Internet as a means of ensuring that through wide access to Internet, the Communist China will eventually get closer to democracy. A paradoxical view is expressed in the Russian paradigm, with the Russian authorities trying to duplicate American servers for various platforms such as Facebook and Twitter in order to

retain Russian data accessible only to Russians. A more balanced view is that expressed by the Council of Europe paradigm, where the author highlighted the efforts made by the organization to ensure enhanced access to the Internet, a protection of its integrity and open character and a maximization of the rights and freedoms enjoyed by Internet users.

Throughout time, the European Union has been very active in the field of Internet governance, focusing on achieving a “non-fragmented” and neutral network that could be accessed by as many people as possible. At the same time, the European Union authorities showed a certain reluctance to the increased control manifested by the United States on Internet governance institutions such as ICANN and demanded a more liberalization of the field.

In this regard, the European Union created the Digital Agenda for Europe, as a tool to be used in order to enhance the Union’s actions in the field, hoping to achieve thus sustainable growth in the Union’s countries. The Digital Agenda for Europe is meant to be implemented between 2014-2020 and is one of the seven pillars of the Europe 2020 Strategy focusing on growth objectives for the European continent. The aims of the Agenda are to fight against the fragmentation of digital markets, the rising levels of cybercrime, the lack of interoperability on the network, lack of investment and literacy in the field and the drawbacks of the current network in addressing social challenges.

The future of Internet governance is an interesting one, with states looking forward to gain more control of it (out of a need of ensuring supremacy on the one hand, as well as protecting themselves and their citizens in the face of informatics’ danger). Despite the fact that the ICANN has been having control over the Internet so far, the initiatives launched by the European Union, as well as the growing interest manifested by powerful states (such as the Russian Federation of People’s Republic of China, not to mention the United States of America), show that very soon ICANN’s rule of the Internet is likely to be challenged. In addition to this, similar challenges might occur also between these powerful states, as security threats are likely to evolve constantly and even involve more than one country (as was the case in the Snowden affair). As far as security threats are concerned, their limitations depend only on human imagination and this presents itself as a heavy situation for countries’ governments as they have proved to be not so imaginative to counter the emerging threats. Consequently, the future of Internet governance depends very much on states and the capable minds governing them.

The thesis explored the National Strategy for the Digital Agenda for Romania, a document which has been voted by the Romanian Government in 2015 and has been creating effects ever since. The Strategy identified four main directions which are, in fact, four main domains in need of thorough improvement within Romania. Aspects such as interoperability, cybersecurity, open data and e-governance are particular fields where Romania needs to be aligned with European Union countries. Additionally, it needs to develop ITC infrastructure and systems with regard to education, culture, healthcare, e-Commerce, research-development and innovation. As can be seen from the pages of this thesis, Romanian authorities have been making strong efforts to accommodate the provisions of the Digital Agenda for Romania and create an actual change.

We also focused on the influence the cyberspace had on two prominent cultures such as the American and European culture. The new media phenomenon has created a number of practical opportunities for local and international communities, enhancing the circulation of information across borders. Both the US and the EU have been committed to their institutional efforts to digitalize and preserve cultural heritage, through the development of online libraries and cultural websites.

It has become evident that the advantage of technological innovation has contributed to the expansion of a cyberpower, expressed through a hegemonic model, displayed in this case by the United States. With a multitude of domestic obstructions, the European Union stumbles into restrictive regulations that derive from the national networks. The same aspects of national organization stem the forces of globalization in Europe, which is often perceived as an American-influenced phenomenon. Additionally, the situation in European countries is largely affected by the strong presence of the state in preserving cultural heritage. We believe that one of the main aspects of technological evolution depends on cultural transformation throughout the years and the study of information technology should not be evolving without the consideration of cultural dynamics.

As Europe has discovered the need for technological development relatively recently compared to the USA, it became the center of our study, through the recent adoption of digital technology-focused policies. Further studies can discuss the vision and social impact of European technology-focused policies in the future, especially in the areas that - as we saw in the thesis - lag behind in Europe.