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NETWORK COMMUNICATION AND POLITICAL AND ECONOMIC ADVANTAGE

Abstract. The aim of the paper is to identify factors responsible for gaining political and economic advantage in network society. The hypothesis is that network communication accounts for political and economic advantage. The Internet network and networking technologies provide new capabilities to new, network form of any system: political, economic (*network economy*), and social. To formulate findings and verify the hypothesis, the author draws on her own experience, the observation of political and social events, as well as analysis of media content, statistics and findings of the scientific research conducted by experts.

Key words: network communication, network society, political advantage, economic advantage

Introduction

Transformations of the society can be characterized with three terms: information, Internet and network. Information and knowledge have been the main assets determining any social advances from the very beginning of the human civilization and the Internet has made them even more critical. The Internet is conceptualized as a mass medium, yet this seems to be not sufficient for all situations. The Internet is a multifaceted mass medium as it contains many different configurations of communication. Its varied forms show the connection between interpersonal and mass communication [1]. Internet is characterized by features that have significant consequences as they create opportunities as well as threats for the society:

§   its global nature

There was an estimate of 3.885.567.619 Internet users worldwide by June 2017. This means about 51.7 percent of the global population accessed the internet that year. The majority of global internet users are located in East and South Asia – 49.7 percent of total, whereas in Europe – 17.0 percent and North America – 8.2 percent. English is the most common language on the internet by share of users, followed by Chinese and Spanish. South Korea has the world's fastest average internet connection speed – 27 Mbps as of 2016. The global average internet speed stood at 6.1 Mbps that year [2].

§   interactivity

The Internet is qualitatively different from any other medium since the ease with which users communicate with each other has created a false sense of communicative freedom. "Spamming" and "flaming" are more and more notorious practices.

§   its potential to shift the balance of power in the offline world

Any enterprise that has been the target of a cyber-attack comes to realize that the power of the Internet can cause instantaneous and irreparable damage and are usually stunned by the ferocity, ubiquity, and tenacity of cyblerlibel attacks.

§   accessibility

Accessibility distinguishes the Internet from traditional print or broadcast media. The low cost of connecting to the Internet and establishing one's own website means that everyone can be a content provider.

§   anonymity

Users communicate anonymously or under assumed names, which secure their privacy on one hand, but on another makes them far less inhibited about the contents of their messages.

§   its facilitation of republication.

The content can be republished unlimited times to unlimited audience. The question arises: who is responsible for re-publication the author or subsequent re-publisher?

§ the prominence of intermediaries

Intermediaries are involved in every Internet publication and their liabilities are regulated by law.

§ its reliance on hyperlinks/hypertext

It is a predominant mechanism through which users navigate the web and find information online. Hyperlinking is a legal activity that supports usability and the propagation of the web's interconnections.

§ its long-term impact

The Internet serves as a repository for information which is usually treated as eternities or contemporary facts when retrieved at some time. The threat of libel emerging in the future is an important issue in damage awards in libel actions.

§ its multimedia character

The Internet allows information and images that defame people or manipulate them to appear uncontrollably in various forms. The content can be transferred from one medium to another complete or fragmented, intensified or diluted. The common practices are: a picture of a well-known individual that has their head superimposed on Hitler, Stalin, or Osama Bin Laden's body; the individual's picture may not be superimposed on the body of one of these individuals completely, but it may have some references to them and their cruel actions; the photo of Mickey Mouse as a terrorist or commercial of a Lego-like block terrorist [3].

1. Communication network as a backbone of the network society

The characteristic of the Internet which seems to be intrinsic and disruptive one is its networked nature. The Internet is defined as a huge communications facility which consists of a world-wide network of computer networks deployed to communicate information [4]. The Internet grew out of the Advanced Research Projects Agency's Wide Area Network (then called ARPANET) established by the US Department Of Defense in 1960s for collaboration in military research among business and government [5].

The concept of the Internet network and generally networking technologies provide new capabilities to a traditional form of social organization. Manuel Castells also claims that in the past, networks were the domain of the private life, and the scope of production, power, and war was organized and managed centrally and vertically in a form of states, churches, armies, and corporations. Digital networking technologies are flexible and thus, able to coordinate performance of decentralized, autonomous elements of any system: political, economic (*network economy*), and social. Digital communication networks are the backbone of the network society [6].

The literature provides with many definitions of the network society. They are as follows:

1) a term used to characterize the changes in a **society** brought about by the Internet communication technologies and in which individuals and groups organized around digital information networks. Peer Learning and Social Interactions in an Asynchronous Learning Environment;

2) a network society is a conception of society based on advanced networking capability to support anytime, anywhere, life-long engagement where all members of society have access to high-quality content. Virtual Repository Development in Canada;

3) a society where the key social structures and activities are organized around ICTs and the ability to exploit electronic information networks becomes critical for individuals as well as organizations. The Role of Public Participation GIS in Local Service Delivery;

4) the rise of the information society will see the emergence of a network society in which information and technology will enable the formation of networks and strategic planning. Contemporary Concerns of Digital Divide in an Information Society;

5) "a society in which a combination of social and media networks shapes its prime mode of organization and most important structures at all levels (individual, organizational and societal)" (Van Dijk, 2005). Management of Distributed Project Teams in Networks;

6) the rise of information society will see the emergence of a network society in which information and technology will enable the formation of networks and strategic planning. Technology Discourses in Globalization Debates;

7) the current configuration of society in which human activities, experiences and power are affected by the network nature of the Internet. The Digital Divide, Framing and Mapping the Phenomenon;

8) the social reality of the 21st century denoted by the widespread use of information and communication technologies in both society and institutions, emphasizing the importance of being able to access new information quickly and effectively through a network structure (Van Dijk, 2012). Development Trends in Economics of Distance Education from the Perspective of New Technologies.

Most quoted definitions emphasized the importance of ITCs technologies which facilitate network communication responsible for an effective organization strategy execution, which involves human activities, interactions, experiences and power.

2. Political advantage

The power in the network is dispersed and held not only by the state but also by non-state entities: international organizations, business organizations, non-government organizations and criminal organizations. The standards of socialized communication dictate who wins and who loses. This communication is mass as it reaches the whole planet. It is self-directed and horizontal because it is often initiated by individuals or groups and penetrates blogs, vlogs, streaming, and other forms of communication. The communication is also global and local at the same time as controlled by media business conglomerates that include television, radio, the print press, audiovisual production, book publishing, music recording and distribution [7].

As the result the politicians and government organizations resort to active participation in social mass media networks to gain political advantage.

Andrea Scavo and Chris Snow ran the BBC Media Action, in which they use media and communication to foster participation in political life by providing information, initiating discussion and direct interaction of citizens with decision-makers.

Quantitative data from seven countries (Bangladesh, Kenya, Nepal, Nigeria, Myanmar, Tanzania and Sierra Leone) allowed them to find the links between watching and listening to governance programs and political participation, as well as the key drivers of participation: political knowledge, discussion and efficacy.

The total sample size was 23.621, with data collected at various points over the course of the five-year program. The analysis shows that:

§   42 % of people regularly reached by BBC Media Action governance programming have participated in an organized effort to solve a problem several times, whereas only 26 % of those not reached by these programs have done so,

§   54 % of people regularly reached by BBC Media Action governance programming have attended a local council meeting at least once, compared with 35 % of those not reached by these programs,

§   40 % of people regularly reached by BBC Media Action governance programming have contacted a local official one or more times, whereas only 28 % of those not reached by these programs have done so.

The findings formulated in the report on BBC Media Action prove that the exposure to governance programs has positive effects on the political participation political knowledge and discussion [8].

The social media has played a crucial role in transformation of political campaigns. Heather Satterfield identified the following spheres of mass communication that deeply affect political and social activities:

§   News Around the Clock

Online news is a 24/7 phenomenon. While you can access news on any websites at any hour, you get all of the latest trending news stories and opinions shared by your friends whenever you log on.

§   The Impact of Polls

Social media has dramatically increased the number of poll results and their impact on political campaigns. Not only do social media sites report the results of polls, you can actually participate in Facebook polls. A poll can be predictive as voters analyzing the poll results, can change them in favor of or to disadvantage of a given candidate.

§   Direct Interaction with Politicians

Social media creates the opportunity for voters to interact with candidates or politicians and attend virtual events.

§   Demographics and Targeting.

Targeting is a common marketing practice to make sure that advertisements and messages reach the right audience. It is also seen as positive in political actions. The political campaign team explores a wealth of information or analytics about the people who are following them on social media, and customize their messages based on selected demographics: women, college students, retired people, Latinos or any other group of voters [9].

§ Rumors, Fake News and Conspiracies

Social media makes the content especially confusing. The constant stream of memes, links and rumors about political leaders and candidates is a mixture of truth, lies, satire and speculation. It is enough to quote the president Donald Trump to prove how crucial and devastating this media is,: *Somebody with aptitude and conviction should buy the FAKE NEWS and failing @nytimes and either run it correctly or let it fold with dignity!*[10].

§ The Power of Confirmation Bias

It's natural for people to make contacts with people of like mind. This is true both online and offline. Yet, on social sites, this can create the illusion that "everybody" thinks the same way. If 90 percent of your friends on Facebook agree on specific political issues, the information you get will be filtered through this bias. People will post links to stories that confirm your existing bias. Social media may reinforce our opinions and make it more difficult to be critical and objective.

§ Social Media and the Future of Politics

ICT advancements will definitely change politics. For example, in Poland there are now proposals for internet voting, which could increase participation in elections, but at the same time even more influence people's decisions as they could literally vote moments after reading the latest comments on Facebook or Twitter.

Billboard and social media campaigns are organized to maximize the potential of democratic tool, which is a nation-wide debate on the reform of the Polish judicial system. The aim is to preset the concepts and government proposals and to get the feedback from the society in the unbiased, real, true and positive atmosphere.

Polling techniques on social media will become more common and, probably, more accurate. As social media becomes ever more popular, its impact on politics will only increase over time [11].

According to the *Survey Report November 2015 Deep Shift 21 Ways Software Will Transform Global Society* by Global Agenda Council on the Future of Software & Society it is expected that in only a few years, three-quarters of the world's population will have regular access to Internet and will be able to interact with information from any part of the world. Content creation and its distribution will be even easier. Some of many positive impacts on building political advantage will involve:

§ Access to education, healthcare and government services,

§ Presence,

§ More information,

§ More civic participation,

§ Democratization/political shifts,

§ Increased transparency and participation versus an increase in manipulation and echo chambers and political fragmentation societies will probably face [12].

3. Economic advantage

Investments in IT equipment and software are the most important sources of economic advantage. This statement is supported by the research conducted by Dale W. Jorgenson and Khuong Vu and its findings presented in the paper *Information Technology and the World Economy [13]*.

They considered the impact of IT investment and the relative importance of input growth and productivity on economic growth. They analyzed all seven regions of the world economy, 112 of the 116 economies, and 14 of them experienced a surge in investment in IT equipment and software after 1995

The leading role of IT investment in the acceleration of growth in the G7 economies is especially pronounced in the U.S., where IT dominated the contribution of capital input. The contribution of labor input predominates in the Non-G7 industrialized economies, Latin America, Eastern Europe, Sub-Saharan Africa, and North Africa and the Middle East. Productivity growth was important in Developing Asia before 1995, but assumed a subordinate role after 1995. Productivity has been declining in Latin America, Eastern Europe, Sub-Saharan Africa, and North Africa and the Middle East. Generally, the productivity appeared to be the least important of the three sources of growth.

Mohanbir Sawhney and Deval Parikh present the similar point of view that in the network environment the management of interactions brings more profit than the actual production processes [14].

These interactions in network are controlled by *interface intelligence* operating on the peripherals of the network where the users connect. These interactions can be continuous and in real time.

Customers can always stay on top of the updates through various mobile apps, emails, regular updates from the company or the online progress tracking system. Big data analytics examining large and varied data sets uncover hidden patterns, unknown correlations; market trends, customer preferences and other useful information that can help organizations make more-informed business decisions and satisfy individual clients. In Levi Strauss, 80 % of the custom ordered jeans fall under the categories of the available sizes, yet the clients choose to custom order through the 'Personal Pair' method of the company to feel satisfied. The Custom Foot's Keegan confirms the same client behavior. Numerous companies such as Individual.com, News page and Yahoo are utilizing the Internet to create customized news items for the visitors whereas other businesses are using the online platforms to allow the clients to design the products on their own. Music companies such as Volatile Media and Musicmaker have become successful in delivering customized CDs. Mass customization is going to replace mass production as it reduces production overruns and wasteful expenditures [15]. Technology is progressing to miniaturize devices, increase computing power and decrease the price will lead to people using more devices with new functions performed and with specialization of tasks. The on hand examples are:

§ Released in 2015, Apple Watch connected to the internet, contains many of the same functional capabilities as a smartphone,

§ Clothing and other equipment will have embedded chips that connect the article and person wearing it to the internet,

§ Glasses, already on the market (not only produced by Google) allow you to manipulate a 3D object and mould it like clay, provide all the extended live information in the same way the brain functions, project picture or video on any piece of paper

The projected positive impacts are:

§ Better decision-making for navigation and work/personal activities

§ Improved capacity to perform tasks or produce goods and services with visual aids for manufacturing, e.g. personalized clothes (tailoring, design), healthcare/ surgery and service delivery (e-commerce)

§ Ability for those with disabilities to manage their interactions and movement, and to experience the world – through speaking, typing and moving, and via immersive experiences,

§ More economic participation of disadvantaged populations located in remote or underdeveloped regions – Access to education, healthcare and government services

§ Access to skills, greater employment, shift in types of jobs

The list of the unknown or cuts both ways effects include:

§ Increased immediate information

§ 24/7 – always on

§ Lack of division between business and personal

§ Be anywhere/everywhere

§ Environmental impact from manufacturing [16].

Conclusion

The analysis of the main features of social transformation: information, Internet and network helped to identify the nature of the contemporary society. The Internet and new technologies created the network structure as a mode for the social organization and functioning, information processing and communication. Most definitions of the network society quoted in the paper emphasize the importance of ITCs technologies responsible for an organization strategy execution, which involve human activities like network communication, experiences and power.

Thus, the formulated hypothesis reads that network communication accounts for political and economic advantage. The author's own experience, the observation of political and social events in Poland as well as analysis of media content exemplifying the impact of mass communication, as well as statistics and analysis of international institutions reports and results of the scientific research conducted by experts helped formulate findings and positively verify the hypothesis.

The communication is mass, socialized, self-directed, and global and local. The politicians and government organizations resort to active participation in social mass media networks to gain political advantage. The exposure of society to governance programs has positive effects on the political participation, political knowledge and discussion. Internet voting, which could increase participation in elections or billboard and social media campaigns organized to maximize the potential of democratic tool of social communication are to give expected political advantage. Interaction with client through business application and big data analysis leads to mass customization of products and help gain economic advantage. For majority of the businesses, mass customization is the best available option and is most likely to replace mass production as the structure and expectations of the clients change.

Ubiquitous computing will result in expanding markets, new industries, increasing political, social and economic participation of all people, also the disadvantaged ones. The experts indicate increase in manipulation and political fragmentation of societies and lack of division between business and personal as probable negative impacts.

References

1. *Merrill Morris and Christine Ogan, The Internet as Mass Medium, Indiana University ; http://fcim. vdu.lt/e-media/ivit/internet-mass.html (10.09.2017).*
2. *http://www.internetworldstats.com/stats.htm (10.09.2017).*
3. *http://www.cyberlibel.com/?p=1132 (10.09.2017) Ed. L. Kiełtyka, Multimedia w biznesie i zarządzaniu, Warszawa 2009.*
4. *http://www.cyberlibel.com/?p=1132 (10.09.2017).*
5. *http://www.businessdictionary.com/definition/internet.html (10.09.2017).*
6. *M. Castells, The Network Society From Knowledge to Policy, Center for Transatlantic Relations, 2005, pp. 3–23.*
7. *M. Castells, The Network Society From Knowledge to Policy, Center for Transatlantic Relations, 2005, pp. 3–23.*
8. *http://www.bbc.co.uk/mediaaction/publications-and-resources/research/reports/media-and-political-participation (10.09.2017).*
9. *https://www.thoughtco.com/how-social-media-has-changed-politics-3367534 (10.09.2017)....*
10. *http://money.cnn.com/2017/01/29/media/media-trump-opposition-party-reliable-sources/index.html (10.09.2017).*
11. *https://sysomos.com/2016/10/05/social-media-affects-politics/ (10.09.2017).*
12. *Survey Report November 2015 Deep Shift 21 Ways Software Will Transform Global Society by Global Agenda Council on the Future of Software & Society,* http://www2.technologyreview.com/news/401775/ 10-emerging-technologies-that-will-change-the/6/
13. *Department of Economics, Harvard University, 122 Littauer Center, Cambridge, MA 02138-3001.[in] M. Castells, The Network Society From Knowledge to Policy, Center for Transatlantic Relations, 2005, pp. 71–90.*
14. *M. Sawhney, D. Parikh, W poszukiwaniu wartości w sieciowym świecie,[in] Harvard Business Review on Advances in Strategy, p. 205.*
15. *Mass Customization: What, Why, How, and Examples, https://www.cleverism.com/mass-customization- what-why-how/ (10.09.2017).*
16. *Survey Report November 2015 Deep Shift 21 Ways Software Will Transform Global Society by Global Agenda Council on the Future of Software & Society. http://www2.technologyreview.com/news/ 401775/10-emerging-technologies-that-will-change-the/6/.*