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**CAMBRIDGE ANALYTICA: ETHICS AND ONLINE  
MANIPULATION WITH DECISION-MAKING PROCESS**

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***Abstract***

The text explores theoretical foundations of the modern processes connected to decision-making in global politics. The influence the fast developing Internet technologies have on the political situation in different countries is studied through the lens of Cambridge Analytica case. The authors of the text research and present the situation with Cambridge Analytica in a chronological order. Possible long-term influence of the situation is presented along with the predictions related to the online meddling with decision-making processes in politics in the future. The world has not met such a precedent before. It is very difficult to make further predictions. It is obvious that the American model, in other words Silicon Valley model, of information society development, driven by the market, is seriously disrupted. More likely that the reason for the failure is in the absence of an appropriate legal basis or deficiency in law. Legislators of many countries and international organizations such as the EU and others are currently trying to eliminate these gaps. The most likely scenario for further events are the following. To develop legislative basis which will help to restrict significantly the operation of companies like Cambridge Analytica and exclude the possibility of the worldwide uncontrolled use of personal data in social networks. The research methodology is based on the theory of technological determinism.

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**Keywords:** Big data, Cambridge Analytica, elections, Facebook, politics, the internet.



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## 1. Introduction

The fact is obvious that “the world stands at the verge of fundamental changes in societal functioning. The Internet, as one communication tool, creates dramatic changes in the world, but states do not surrender.” (Duck interview with the Chairman of Pirate Party of Iceland, 2014). Modern political science quite rapidly mirrors current changes in social networks as well as in information society theory (Grishina, 2013). The great popularity of the Internet and the widespread use of mobile information and communication technologies has significantly changed the social environment and social communication (Bylieva, Lobatyuk, & Rubtsova, 2017). The Internet and information technologies are spreading worldwide at such a frenetic pace that sometimes there is not even a chance to catch up with these constantly emerging phenomena (Aladyshkin, Kulik, Michurin, & Anosova, 2017; Gashkova, Berezovskaya, & Shipunova, 2017; Bylieva, Lobatyuk, & Rubtsova, 2018). The ubiquitous usage of personal data of social network users by Facebook and Cambridge Analytica may be considered as one example of such phenomenon.

This relatively new phenomenon as well as the ethical aspect of the unofficial and uncontrollable usage of personal data have been researched in detail in this article. Moreover, the events following the circumstances that came to light and led to the bankruptcy of Cambridge Analytica, the implementation of stricter rules regarding the usage of personal data and the adaptation of GDPR (General Data Protection Regulation, 2016) have been analyzed by the authors.

## 2. Problem Statement

There are some theories that analyze the influence of Internet technologies on decision-making process: information society theories, functionalism, structuralism, public sphere theory by Habermas (1981) and others.

Personal data is any information with direct or indirect links to an individual. European Union Directive defines it as a unique information that identifies an individual (Directive 95/46/EU).

The information society theory by Nesbitt (1992), Toffler (1990), Masuda (1980) adheres the idea that contemporary society may be characterized by the tremendous growth of production, exchange and consume of information. The term “information society” was developed by Machlup in 1962 and first met in his book “The Production and Distribution of Knowledge in the United States” (Machlup, 1962).

Castells made a huge impact on the development of the information society theory. In his work “The Information Age: Economy, Society and Culture” (Castells, 1996) he mentions that the Internet supports the new structures of social communication but not very homogeneously. Different users has different attitude and needs in information. From the one hand, these are “the minority of global village inhabitants”, “first comers to the digital border”. From the other hand, they are the “nomads” who appear in different networks irregularly.

The former is prone to consider computer communication language as a new tool that is informal, spontaneous, and anonymous. The latter considers email as a revenge over writing system and return to typographic thinking (Kostina, 2010; Spihunova, Rabosh, Soldatov, & Deniskov, 2017).

Touraine (1997), a French sociologist, in his work “Can We Live Together?: Equality and Difference” assumes that “information is considered less as an exchange tool but more as emissions”. He

says that it is possible to name this phenomenon as a promotion or propaganda if not in the pejorative meaning.

The information is more connected with the decision-makers and power-holders. In addition, the skill of programming is a very powerful tool. It gives “mass media more power and thus – money” (Touraine, 1997).

Innis (1951) and McLuhan (McLuhan & Fiore, 1967) of the Toronto School of Politics consider the media as a main tool of social communication. McLuhan & Fiore (1967) give evidence that some media supports political communication. On the other hand, it may hinder communication between politics and society. This is one of the reasons why new media has such a dramatic influence on political life. It leads to the changes in political system of any country (McLuchan & Fiore, 1967).

Boldyreva and Grishina (2017) analyze the influence of the Internet on political system transformation in a single country (2017). Evseeva, Bashkarev, Pozdeeva, & Tarakanova, (2017), Almazova and Kogan (2014), Pogodin (2017), Skorniakova and Safonova (2017) and Duisembina (2018) researched the influence of new Internet technologies on the political sphere in Russia in details.

The “big data” theory by Leench may be considered as the most influential. It appeared in the beginning of this century when it became technically possible to process the big data files. This theory analyses such ideas as volume, velocity and variety with which any structured and big data files are processed. It is known as 3Vs theory (Chen, 2014).

The work of Sudhahar, Veltri and Cristianna gives a vision on the big data interaction and influence. They base the theory on the analysis of big data automated acquisition considering the case with presidential elections of 2012 in US (Sudhahar, Veltri, & Cristianini, 2015). The authors and Arseniev, Ivanov and Korenevsky (2018) prove that the big data helps to understand how different processes happen and develop not only in social networks but outside as well.

Minkin in one of his interviews (“Artificial intelligence will replace deputies and politologists”, 2018) defines artificial intelligence as a technology of data analysis that gives great opportunities of collecting data. Advertising becomes targeting. It means that potentially there is information about any citizen. This information gives a chance to analyze the preferences and needs of a voter and thus design the electoral campaign. Politics is just one of the sphere where these technologies may be used.

Bisbee and Larson (2017) compare the character and the consequences of social networks connections. They create an experiment on data analysis with new technology of the data engine. Authors say that online data is quite possible to be used in real media. They base their conclusions on three tests: k-fold cross validation to analyze RMS error, absolute error and Bayesian information criterion. Bisbee and Larson are sure that social network resembles the real world relationships in its character and functions.

The Internet obviously is just one tool that shows how digital communication and information storage technologies develop. Communication tools may be divided into “two big groups: natural (nonverbal and verbal) and artificial (paper and electronic). The Internet belongs to artificial and electronic group along with TV and radio... One of the reason for artificial tools to appear is a need to communicate in the differentiated society” (Bykov, 2013, p.39). With the development of the Internet the communication model “one-to-many” was changed into “many-to-many”. It made communication more interactive and effective. Any person has a chance to create their own informational content and participate in the

discussion of the content of different participants. O'Reilly (2005) says that Internet communications allow engaging “collective mind” and “wisdom crowd” which leads to a win-win decision.

Toffler (1990), Snider (1994), Grossman (1995) and others say that Internet spreads overwhelmingly. As a result, it is very possible to go back to a direct democracy now. They try to find out the place of democracy in modern information world and forecast its development when using all the opportunities of information society.

However, the recent events show the reverse processes are happening with the development of new technologies. It becomes quite clear that it is not enough for companies to use just contextual advertising. They want to know practically everything about users: itineraries, travel directions, search requests and political preferences. No doubt that not only political parties but even states find it very effective to form political preferences of voters. Barlow (“John Barlow sends his warmest greetings to copyrasts and SOPA followers: the lecture in Russia”, 2012) says, “It seems that we are watching probably the last and agony try of old state models to subdue the information space”.

Since the beginning of 2000 ideologists and followers of hacking, cyberpunk and net libertarianism discuss the possibilities of these information trends. Net libertarianism may be considered as “informal ideology, virtually established in cyber space of global network which main idea is to maximize the hindrance of a state in process of information flows” (Emelin, 2017). “The declaration of cyberspace independence” by Barlow (2017) may be considered as the main program document. All three ideologies speak about free self-expression and speech, autonomy of net space from state and its coercion. Pirate parties are the main constituent parts of these three ideologies. They are becoming more popular in different countries: Iceland, Check Republic, Sweden and others.

Zakaria (2018) says, “Today the digital economy is based on three basic technologies which are computer chip, Internet and GPS. All of them appear thanks to a state. The favor of the two last technologies definitely belongs to a state. They were under control of a government before they have become available to a private sector. Many people do not understand that GPS as the global system of sputnik allocation and control centers is very important to modern economy. Up to the moment it is under control of US Air Force”. There is still hope that democratic countries will manage to control unsupervised use of personal data. Otherwise, the results of using data technologies by authoritarian regimes such as China, India, and South Korea etc. may become a big threat.

Zakaria mentions that India has its own state biometric identification system Aadhaar, which comprises data of almost all of the country's citizens. India may become a pioneer in the private data protection. On the other hand, no one can stop the Indian government to use this technology for its own purposes.

In 2018, European Union has taken into consideration the problem of uncontrollable use of huge bulk of personal data – not only of social network users. The old Directive of European Parliament and European Union Council of 1995 speaks about “protection of private data and about free use of such data” (Directive 95/46/EU). It was changed into new General Data Protection Regulation. All the companies that have relations with EU citizens and process their personal data including energy and financial companies, telecom operators and reservation services, Internet shops and social networks, are under these regulations. According to Balashov (2018), the GDPR now “refers not only to collected personal data, but also to

monitoring the behavior of the data subject, it may be profiles in social networks, geolocation, etc. for targeting and personalizing advertising”. Since the beginning of 2018, IP addresses have been considered as a part of user’s personal data. The concepts of a data controller and a data processor were separated. The first, who is the process manager, is more responsible than the second one, who is an executor such as cloud storage, processing program, etc.

### **3. Research Questions**

The personal data is used to achieve the political goals of individuals or companies. Moreover, the situation with the uncontrolled use of personal data of more than just social network users is analyzed unscrupulously.

### **4. Purpose of the Study**

This relatively new phenomenon as well as the ethical aspect of the unofficial and uncontrollable usage of personal data have been researched in detail in this article. Moreover, the events following the circumstances that came to light and led to the bankruptcy of Cambridge Analytica, the implementation of stricter rules regarding the usage of personal data and the adaptation of GDPR (General Data Protection Regulation, 2016) have been analyzed by the authors.

### **5. Research Methods**

The research methodology is based on the theory of technological determinism.

### **6. Findings**

In this article, we consider the case with Cambridge Analytica as it is one of the remarkable examples of using personal data to fulfill political strategy in a voting campaign.

The official site of Cambridge Analytica promotes its activity as a combination of predictive analytics, behavioral science and advertising technologies based on data collection. The aim of this combination is to form a target audience and to use the data to persuade and motivate the voters (The CA advantage, 2018).

Cambridge Analytica was mentioned in press in the beginning of 2015 for the first time. The company was used during the campaign of Ted Cruz. Later on, in December 2015 the world learned about the use of personal data of Facebook users (Davies, 2015). According to different media sources, Strategic Communications Laboratories, which is the parent company of Cambridge Analytica, was working with Global Science Research (GSR). They design Facebook database. GSR founder Kogan A. was at the head of data collection processes. He used Amazon Mechanical Turk, or MTurk, through which the users were presented with an opportunity to do routine and minimum paid job – Kogan offered the users to do online survey in exchange for the payment of 1-2\$. In order to complete the survey, the users were asked to connect their Facebook accounts to the website. This automatically led to unintentionally connecting Facebook “friends” of a user – the information of these “friends” became available for data collectors as well. This

“seeding” technique proved to be very effective. Through one user only it was possible to get the information about a huge group of people. One user brought around 340 “friends” on average according to the information based on 2014 statistics. The information about the location and interests of available users was gathered and analyzed with the five-factor model – dispositional model of personality (Positive Psychology Program, 2017). The analysis could unravel such traits of a person as extraversion, benevolence, conscientiousness, emotional stability and openness to experience, as well as their opposites. Amazon has blocked GSR access to MTurk after numerous complaints.

At that time, two candidates associated with Cambridge Analytica were Ted Cruz and Ben Carson. Federal Election Commission documents showed that Cruise’s campaign paid Cambridge Analytica at least \$ 750 000, and Carson’s campaign paid about \$ 220 000 (Davies, 2015). Consequently, Facebook became very concerned about this information. It announced a thorough investigation and asked Cambridge Analytica to remove any information that was received via Facebook. Later on Facebook representative reported that “their investigation did not trace any illegal activity” (Schwartz, 2017). In 2017, GSR was reported to have data of around 30 million Facebook users received through different data sources (Schwartz, 2017). In March 16, 2018 Facebook gave commentary on the situation with Cambridge Analytica. The representatives unraveled the fact that despite the promises of Cambridge Analytica to destroy all data it did not happen. Wylie, a CA employee, provided all information about Cambridge Analytica to press. He, together with Kogan, were suspended from the company pending further investigation (Grewal, 2018).

New York Times published an article in March 18, 2018 with the overwhelming picture and scale of CA data collection (Rosenberg & Frenkel, 2018). The investigation revealed that CA had collected the personal information of at least 50 million users. Probably, it could be the biggest “leak” of data in the history of Facebook, although the legitimacy of using the term “data leakage” is a subject of wide speculations. Therewith, it became evident that Cambridge Analytica still had access to all the data previously collected. Facebook reacted with another statement stating that “the data breach” is not a true vision of a situation, since all users have provided their information voluntarily. No company gained any personal data illegally (Grewal, 2018).

It is worth to mention that CA is operating not only in the US. Currently, the investigation is conducted on the involvement of the CA in Brexit, as well as in the situation in Russia and Ukraine (Farias, 2018).

Edward Snowden comments “businesses that make money by collecting and selling detailed records of private lives were once described as “surveillance companies” rebranded into “social media” (Snowden, 2018). Events with Cambridge Analytica led to an unprecedented fall of Facebook stocks (Facebook interactive stock chart, 2018) and a massive negative reaction from not only users of this social network, but the entire world community.

The situation became much worse when Channel 4 News broadcasted hidden camera footage with negotiations and phone calls of Cambridge Analytica chief executive Alexander Nix and other employees of the company (“Cambridge Analytica: Warrant sought to inspect company”, 20 March 2018). It is crucially important to understand that we can’t fully rely on these hidden camera records. On the other hand

they create an overview of the influence of CA and other analytical companies on the political situation, and especially on online politics.

The representatives of Cambridge Analytica pointed out that first, CA operates not only in the US, but also in Africa, Mexico, and Malaysia and in the nearest future in Brazil, China and Australia.

Second, the target audience is formed by psychological practices, which may include such issues as information perception and the manipulation of human hopes and fears. It is very worth to mention that election campaigns should be based not on facts, but on emotions, which are considered as a more effective incentive in decision-making process.

Third, CA was mentioned to participate in the 2017 elections in Kenya. The company designed the electoral campaign, as well as took part in its rebranding and research on more than 50 thousand respondents.

Forth, Nix in one of his phone calls names CA “the largest and most influential political consulting company in the world, with the most impressive results”.

After Channel 4 News published these records, CA released a statement that “Cambridge Analytica is not in the business of fake news, we’re not in the business of lying, making stuff up, and we’re not in the business of entrapment...” (“Cambridge Analytica responds to use of entrapment and mischaracterization by Channel 4 News”, 19 march 2018). While analyzing such public materials it is crucial to understand that the information that unmasked to the audience is not full. It may lead to a massive discrimination and prepossession which may be easily directed by the media and bring serious consequences as it happened with Alexander Nix, the executive director of CA (A Statement from the Board of Directors, 2018).

Although the reaction of the Congress and the US Parliament to the situation with Cambridge Analytica and Facebook was rather neutral, the Federal Trade Commission decided to conduct its own investigation (Statement by the Acting Director of FTC’s Bureau of Consumer Protection Regarding Reported Concerns about Facebook Privacy Practices, 2018). The reaction of the British government was negative. Mark Zuckerberg, Facebook chief executive refused the request of the UK parliament to speak about data abuse (Griffin, 2018). British lawmakers have long referred to Facebook as an “intelligence operation” where the company and its users are having the “abusive relations” (Kozłowska, 2018). According to British law, foreign actors have no right to pay for political advertising. According to I. Lucas, Labor Party representative, Facebook gets payments for advertising and thus “promotes an illegal act”. He believes that the problem is with Facebook that refuses to provide any specific information about its operations and the scale of the personal data collection.

The investigation with Cambridge Analytica and Facebook caused Facebook loss of more than 100 billion dollars in the first weeks after the scandal (Kramer, 2018). As for now the economy of the world-famous social network remains very unstable. Zuckerberg is trying to keep the situation under control. He publicly apologized (Wiener-Bronner, 2018), and also explained the situation to the US Congress (Watson, 2018). The reaction of the public to this was rather ambiguous.

Although the precedent with Cambridge Analytica is dying down a bit, many articles still appear in different sources about Facebook data abuse. For example, about data collection and storage of phone calls and messages in Android (Warren, 2018). It is not very clear now how much information about Cambridge



Analytics operations will be brought to light in future but for now the scandal around Cambridge Analytica is obviously huge.

In April 18, Facebook responds to new EU regulations and announces new rules related to the protection of personal data (Ong, 2018).

The report of May 2, 2018 at the official site of CA says that SCL Elections Ltd and affiliated company Cambridge Analytica filed application to commence bankruptcy proceedings. The report states that “over the past several months, Cambridge Analytica has been the subject of numerous unfounded accusations and, despite the Company’s efforts to correct the record, has been vilified for activities that are not only legal, but also widely accepted as a standard component of online advertising in both the political and commercial arenas” (“Cambridge Analytica and SCL Elections Commence Insolvency Proceedings and Release Results of Independent Investigation into Recent Allegations”, 2018). The company shows confidence that it has operated ethically and lawfully. However, because of the siege of media coverage the company lost virtually all its customers and clients. Thus, CA considers that it has no viability to operate this business longer.

The situation with Cambridge Analytica (Horwitz, 2018) made the lawmakers find the ways how to protect personal data of users. As a result, the new General Data Protection Regulation (2016) was ratified in May 25, 2018. GDPR controls all the companies working with personal data of the EU citizens. GDPR is applicable to all the companies when they collect and analyze personal data intentionally and consistently to create user’s profile, as well as decides for the user, analyze and forecast user preferences while using this data.

In June 15, 2018 the former employees of Cambridge Analytica organized the new consulting company under the name of Data Propria. Associated Press says that Data Propria is planning to participate actively in presidential campaign of Donald Trump in 2020. Data Propria gives practically the same service as Cambridge Analytica does and it includes the design of the electorate psychological profile based on data from social networks.

## **7. Conclusion**

The situation with Cambridge Analytica is the precedent. It is definitely far from being over and it is really difficult to give any further predictions. Moreover, for the first time ever the authors give such detailed and in-depth research of Cambridge Analytica case and anticipate several scenarios for its future development.

Although the company went bankrupt but managed to partly reopen under a new name – Emerdata Limited (Morris, 2018), the situation with Cambridge Analytica is still far from its end as Facebook investigations are not over (Rosenberg, 2018). The world has not met such a precedent before. It is very difficult to make further predictions. It is obvious that the American model, in other words Silicon Valley model, of information society development, driven by the market, is seriously disrupted. More likely that the reason for the failure is in the absence of an appropriate legal basis or deficiency in law. Legislators of many countries and international organizations such as the EU and others are currently trying to eliminate these gaps.

The most likely scenario for further events are the following. To develop legislative basis which will help to restrict significantly the operation of companies like Cambridge Analytica and exclude the possibility of the worldwide uncontrolled use of personal data in social networks. Obviously, this tool is not a panacea. No one can guarantee that a state will not succumb to the temptation to use the technology for its own purposes. Quite possible that it is happening right now.

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