

## Legal Challenges of Personal Data Protection During the Processing of Big Data

*In the rapidly evolving landscape of modern technologies, the scale of Big Data processing is on the rise, presenting a challenge to the legal protection of personal data. Big data processing serves as the "fuel" for modern technologies, including artificial intelligence.*

*"Big data" is a well-established term in information technology science, and its official definition is nearly nonexistent. According to the most widely recognized definition, this term refers to a large dataset, whose collection, management, and processing significantly surpasses the capacities of traditional databases and their corresponding programs.*

*The article explores the legal protection of personal data in the processing of big data, using the legal frameworks of two of the most technologically advanced countries, the USA and China, as examples. The article illustrates the positive and negative factors associated with the expansion of big data processing concerning personal data protection.*

**Keywords:** *Big Data, Data protection, Personal data, The US Clean Network Initiative, Global Initiative on Data Security.*

### 1. Introduction

In the fourth industrial revolution, where cutting-edge technologies such as artificial intelligence rely on machine learning, deep learning, and neural network analytical models, the foremost challenge is the protection of personal data. Any cutting-edge technology that utilizes the internet network involves extensive information processing. This gives rise to a significant challenge concerning the legal aspects of personal data protection.

On June 14, 2023, the Parliament of Georgia passed a new law, "On Personal Data Protection." The first article of this law explicitly states its primary objective: "to protect basic human rights and freedoms, including the rights to personal and family life, personal space, and communication inviolability when processing personal data".

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The new edition of the law directly reflects the EU regulations<sup>1</sup> in addressing challenges related to personal data. The law is applicable to the processing of data by automatic and semi-automatic means within the territory of Georgia, as well as the processing of data by non-automatic means that are part of the file system or processed for input into the file system. Additionally, it covers the processing of data using technical means available in Georgia by a data controller registered outside Georgia, unless those technical means are solely used for data transit.<sup>2</sup>

The processing of personal data is directly connected to the concept of "Big Data" processing, which serves as the primary "fuel" for all modern technologies. "Big data" is a well-established term in information technology science, and its official definition is nearly nonexistent. According to the most widely recognized definition, this term refers to a large datasets, whose collection, management, and processing significantly surpasses the capacities of typical, traditional databases and their corresponding programs.<sup>3</sup>

The purpose of the article is to study and analyze the essence of Big Data and the legal challenges associated with the processing of personal data within its framework.

## **2. The Essence of Big Data**

Napoleon was known to assert, "90% of war is information." Presently, technological and business organizations are actively pursuing a novel natural resource. This resource holds greater value than oil and is more crucial than capital. This resource can be acquired, but it cannot be owned. It exists in every country, yet obtaining it proves to be challenging. The world's leading companies recognize that without it, they face inevitable failure, yet outdated management methods often hinder its acquisition. This new natural resource is known as Big Data.

The public goods of the information age are easily visible — smartphones in pockets, laptops in bags, and information technology systems in offices. However, what is less noticeable is the information itself. Over the last twenty years, the accumulation of data has reached a point beyond which people's imagination and perception of reality are entering a new phase. The quantitative change in information has led to a qualitative transformation. Scientific fields such as astronomy and geophysics have introduced the term Big Data, a concept now pervasive across all spheres of human activity today.

There is no singular, perfect definition of big data. The initial concept revolved around the idea that the volume of information to be analyzed had expanded to a scale where traditional storage methods like USB or other data carriers were no longer practical. As a result, computer engineers needed new data carriers that could facilitate the analysis of extensive volumes of information. This is how completely new programs for processing big data appeared, such as, for example, Google's MapReduce and its open-source equivalent, Yahoo's Hadoop. These programs facilitated the utilization of a network of multiple computers to address diverse tasks.

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<sup>1</sup> <[https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu\\_en](https://commission.europa.eu/law/law-topic/data-protection/data-protection-eu_en)> [07.01.2024].

<sup>2</sup> The Law of Georgia "On Personal Data Protection", 3144-Xlms-Xmp, 14/06/2023, Art. 2 (1).

<sup>3</sup> *Franks B.*, Taming the Big Data Tidal Wave: Finding Opportunities in Huge Data Streams with Advanced Analytics, New Jersey: John Wiley & Sons, Inc., 2012.

The ability of internet companies to collect substantial data about individuals and legal entities provided them with the motivation to invest in and develop technologies and programs capable of analyzing this information, making it more valuable for business.

However, this is just the beginning. The era of big data will challenge global norms, questioning how we live and interact with the world. It will challenge centuries-old traditions, practices, and fundamental human understanding, including how decisions are made and how we perceive the world.

Entering the era of big data marks the beginning of radical changes. To comprehend the magnitude of the information revolution, this is demonstrated by the current trends across almost all sectors of society. Our digital world is constantly expanding. For example, Google.com collects more than 50petabytes of information per day, which is more information than all the world's libraries combined. Facebook.com uploads tens of millions of photos per hour, while Youtube.com uploads up to two billion videos per month. Information is accumulated in the fields of finance, banking, healthcare, insurance, agriculture, transport and logistics.

Big data is essentially "raw" information. Similar to raw natural resources, such as crude oil, it must undergo a process of "refinement," grouping, and shaping before it can be utilized as a usable product. This constitutes a massive data structure that enables artificial intelligence to analyze an increasing amount of information through self-development, ultimately delivering precise analytics in various fields with more comprehensive calculations. Big data carries an immense volume of resources, making its analysis unattainable through traditional methods of information analysis. Big data can be used to generate and analyze observations that would be otherwise unattainable with small-scale analysis methods. Consider a voice message, a tweet, an email, personal photos, and videos on social networks, or even your transactions on world-renowned websites like amazon.com, ebay.com, Alibaba.com, Taobao.com, or local platforms like Georgian vendoo.ge or liloshop.ge, passport scans, photos of hamburger or sandwich, or even electrocardiogram recordings. All these elements have the potential to form the foundation of big data.

Big data is acknowledged as a contemporary technology for processing, analyzing, and distributing substantial volumes (arrays) of both structured (interrelated) and unstructured (e.g., text messages, images, videos, audio) digital information. It encompasses 8 dimensions or 8Vs: Volume - the size of data; Value – the importance or worth; Veracity – reliability and accuracy; Visualization – processing and external presentation; Variety – diversity; Velocity – speed; Viscosity – data retention in memory; and Virality – mass spreading.<sup>4</sup>

The evolution of new internet technologies will open up additional opportunities for harnessing big data. For instance, the advancement of the 5th generation of mobile internet - 5G, will not only enable the concept of "smart things", but also ensure "smart cities" are consistently online, facilitating the extraction and processing of immensely large amounts of data. Artificial intelligence will gain the capability to acquire precise information about individuals, encompassing their preferences in terms of desires, food, technology, housing, love for nature, and even political views. According to some scientists, this development is seen as a precursor to significant dangers. For example, the globally renowned modern historian Yuval Noah Harari emphasizes that artificial intelligence, without proper legal regulation, poses a substantial threat to humanity, and its danger does not necessarily lie in physically harming individuals. The primary issue is that, through the analysis of big data,

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<sup>4</sup> Jolia G., Education and Employment in the Digital Environment, Tbilisi, 2021, 36 (in Georgian).

artificial intelligence will have the capacity to observe human emotions and not only understand individuals' interests and attitudes toward various subjects and events, but it will also have the ability to analyze and understand even the innermost emotions that a person may not be aware of themselves. An illustrative example of this is a case where artificial intelligence, through a woman's internet browsing habits, inadvertently focused on sites reflecting behaviors related to small children. Consequently, the program analyzed the woman's emotions and inferred that she was pregnant. Just a few days later, during a visit to the doctor, the woman discovered that she was indeed expecting a child. The perils of artificial intelligence and the necessity for regulation will be discussed separately below, we won't stop the discussion here.

In the course of the fourth industrial revolution, data has become a more valuable resource than land or oil were during the first and second revolutions. When this resource, much like "crude oil," undergoes processing and becomes suitable for use, it will present an incredible opportunity for technological companies and humanity as a whole.

Big data is integral to the multi-stage and multi-layered technological war between the world's two largest economies: the US and China.

### **3. The US "Clean Network" Initiative**

The trade and technology war between the United States of America and China has undergone numerous rounds. However, the primary cause of the conflict between them revolves around the question of who can better control the most valuable resource of the modern era – big data. The ban on popular mobile applications like TikTok and WeChat by the United States is one of the manifestations of the ongoing battle over big data.

The so-called "Clean Network" initiative, published by the US State Department, involves a public statement by the United States aimed at protecting American citizens and encouraging other countries to join this initiative. In the preamble of the "Clean Network" initiative, the statement of the US Secretary of State is cited, urging "all freedom-loving countries and companies to join The Clean Network".<sup>5</sup>

The "Clean Network" initiative includes "Clean Carrier", "Clean Store", "Clean Apps", "Clean Cloud", "Clean Cable", "Clean Path".

The "Clean Carrier" initiative entails the US policy aimed at ensuring that online information carriers from the People's Republic of China are not connected to US communications networks. Such companies pose a threat to US national security and should not be involved in US international telecommunications services.

The "Clean Store" initiative aims to remove untrusted apps from US mobile app stores. Specifically, apps created by Chinese companies pose threats to US privacy, propagate viruses, engage in content censorship, and disseminate disinformation. The official statement asserts that the most sensitive personal and business information on Americans' mobile phones must be safeguarded and protected from theft and exploitation by any third party.

The "Clean Apps" initiative signifies that pre-installations and downloads on Chinese-made smartphones should undergo inspection to determine whether these applications utilize technologies from Huawei or other Chinese companies that might pose a threat to the personal rights and freedoms of citizens in the United States or other countries.

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<sup>5</sup> "We call on all freedom-loving nations and companies to join the Clean Network", <<https://2017-2021.state.gov/the-clean-network/>> [07.01.2024].

The "Clean Cloud" initiative signifies that the most sensitive personal information of US citizens and the most valuable intellectual property of American businesses, including details about COVID-19 vaccine research, will be processed and stored exclusively on cloud systems, avoiding the use of programs, hardware, applications, and smartphones provided by Chinese companies with anti-American affiliations such as Alibaba, Baidu, China Mobile, China Telecom, and Tencent.

The "Clean Cable" initiative, as asserted by the US State Department, ensures to safeguard the security of undersea cables connecting America to the global Internet, mitigating the risk of subversion by Chinese intelligence systems at a hyper-scale. They are also ready to work with foreign partners to ensure that undersea cables around the world are protected and America will be uncompromising in this regard.

On April 9, 2020, US Secretary of State Pompeo unveiled the "Clean Path" initiative. This initiative entails the US State Department mandating a "Clean Path" for 5G internet traffic entering and exiting US diplomatic facilities.

The US points to the fact that Chinese 5G internet traffic development companies Huawei and ZTE operate under the directives of the Chinese Communist Party, leading to a lack of trust from the US. This move is aimed at safeguarding American citizens and businesses from unauthorized intrusions by Chinese companies through 5G internet traffic.

The significance of Georgia signing a memorandum with the US on "Security of 5G networks,"<sup>6</sup> on January 14, 2021, is noteworthy, through this action, Georgia practically joined the "Clean Network" initiative.

The document highlights the importance of safeguarding communications networks from interference or manipulation. The memorandum emphasizes the necessity to support reliable and trustworthy network hardware and software vendors in 5G markets, considering national security risk profile assessments and, also, the need to promote infrastructure that effectively protects 5G networks from unauthorized access or interference. According to the document, when evaluating suppliers in the market, it is crucial to be guided by criteria such as the rule of law, security environment, ethical supplier practices, and compliance with safety standards and industry best practices.

According to the memorandum, the parties recognize that 5G suppliers must provide products and services that facilitate innovation and enhance efficiency. These products and services should ensure fair competition and foster further development in the market with the involvement of maximum participants.

By signing the memorandum, Georgia became the 53rd member country of the "Clean Network" initiative of the US State Department. As evident from official statements of the US State Department, member countries (numbering over 50) and their more than 180 telecommunication companies, controlling more than 2/3 of the world's gross domestic product, have publicly affirmed their commitment to the principles of the "Clean Network" initiative.<sup>7</sup> This commitment will encourage the use of hardware and software products from trusted suppliers to secure the Internet network infrastructure, safeguard the privacy of citizens, prevent unauthorized access to telecommunications infrastructure, and ensure national security.

The "Clean Network" initiative of the US State Department is primarily aimed at the People's Republic of China and its high-tech companies, it should be regarded as one of the

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<sup>6</sup> <<http://www.economy.ge/index.php?page=news&nw=1617>> [07.01.2024].

<sup>7</sup> <<https://2017-2021.state.gov/the-clean-network/>> [07.01.2024].

manifestations of the "technological war" between America and China.<sup>8</sup> The US State Department explicitly asserts that Chinese high-tech companies utilize their equipment to manipulate the personal information of citizens from different countries for their own purposes and there is a significant risk that this information could be transferred to the Chinese government to address various security issues. This poses a threat not only to the disclosure of personal information of citizens but is also directed against the national interests of countries.

In addition to the principles defined above, the "Clean Network" initiative explicitly states that it protects the most sensitive information of US citizens and its companies from aggressive and harmful actions by external actors. For example, such as the Chinese government. The main goal of this initiative is to protect US digital assets, mainly big data, from falling into the hands of Chinese competitors, even through legal means (for example, based on information officially obtained from "Tik Tok"). As mentioned above, big data serves as a kind of fuel for the development of technologies such as artificial intelligence, and dominance in the field of artificial intelligence will practically provide a significant advantage to the competitor. Eric Schmidt, the former CEO of Google, expressed concern about this in a public speech. He stated, "By 2020, we will be overtaken by the Chinese; by 2025, they will surpass us, and by 2030, they will dominate the field of artificial intelligence." Therefore, he urged the US government to take swift and effective steps in developing a state strategy for artificial intelligence and the protection of big data.

There is indeed reason for concern. According to numerous studies, Chinese companies already possess approximately ten times more information in the field of big data compared to the US. Each day, Chinese companies Alibaba and Tencent (the company that owns the WeChat app) update, process, and utilize the personal information of up to 1 billion people. China's leaders often state that the country's economic and military development hinges on the advancement of technologies in virtually every field of applied science, this includes robotics, genetics, space technology, drones, pharmaceuticals, microprocessor and microchip technologies, as well as modern solar energy technologies.

#### **4. "Global Initiative on Data Security" of the People's Republic of China**

China, as one of the world leaders in artificial intelligence science, has devoted all its scientific resources to perfecting big data analytics in the past few years. However, at the same time, it is compelled to overcome the restrictions imposed by its competitors recently. An example of this is the "Clean Network" initiative of the US State Department mentioned above, which is primarily directed against China. Beijing appeared to back down and responded with a "Global Initiative on Data Security."

On September 8, 2020, China's Ministry of Foreign Affairs published the "Global Initiative on Data Security" on its official website.

The initiative notes that "the phenomenal development of the information technology revolution and the digital economy is transforming the way of production and life, exerting a broad impact on the social and economic development of states, the global governance system, and human civilization. The rapid growth of data and its integration as a key element of digital technology has played a crucial role in promoting innovative development and shaping people's lives, It has implications for the security of states and economic and social

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<sup>8</sup> Ibid.

development, therefore, we call on all states to equally prioritize development and security, adopting a balanced approach to technological progress, economic development, and the protection of national security and public interest. States should promote an open, fair, and non-discriminatory business environment for mutual benefit, profit, and common development. At the same time, states have the responsibility and the right to protect important data and personal information related to their national security, public safety, economic security and social stability."

The initiative emphasizes that China welcomes the participation of governments, international organizations, information technology companies, non-governmental organizations, individuals, and all other actors to encourage joint efforts to ensure data security based on broad consultation, shared contributions, and mutual benefits. All parties should strengthen dialogue and cooperation on the basis of mutual respect and support each other to build a society with a shared future in cyberspace of peace, security, openness, cooperation and order.<sup>9</sup>

To ensure this, China proposed to the states:

- To be able to protect data security with a comprehensive, objective and evidence-based method and to maintain an open, secure and stable supply chain of products and services in the field of information and communications technology (hereinafter referred to as - "ICT").
- Oppose ICT activities that disrupt or steal important data from the critical infrastructure of other states or use the data to conduct activities that undermine other States' national security and public interests.
- Take measures to prevent activities that endanger personal information through the use of ICTs and to oppose mass surveillance against other states and the unauthorized collection of personal information of other states with ICTs as a tool.
- To encourage companies to abide by the laws and regulations of the State where they operate. States should not request domestic companies to store data generated and obtained overseas in their own territory.
- Respect the sovereignty, jurisdiction and governance of data of other States, and shall not obtain data located in other States through companies or individuals without other States' permission.
- Should States need to obtain overseas data out of law enforcement requirement such as combating crimes, they should do it through judicial assistance or other relevant multilateral and bilateral agreements. Any bilateral data access agreement between two States should not infringe upon the judicial sovereignty and data security of a third State.
- Providers of ICT products and services must refrain from installing security programs (commonly known as "backdoors") in their products and services to guard against the illegal acquisition of users' data for the purpose of control or manipulation of users' systems and devices.
- ICT companies should not seek illegitimate interests by taking advantage of users' dependence on their products, nor force users to upgrade their systems and devices. Products providers should make a commitment to notifying their cooperation partners and users of serious vulnerabilities in their products in a timely fashion and offering remedies.<sup>10</sup>

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<sup>9</sup> <<https://www.flyingnets.com/en/>> [07.01.2024].

<sup>10</sup> Ibid.

- China calls on all states to support this initiative and confirm the above commitments through bilateral, regional and international agreements. They also welcome global ICT companies to support this initiative.
- In the "Global Initiative on Data Security" of September 8, 2020, China presented initiatives that countered the arguments made by the US State Department to China and its major technology companies.

## **5. Big Data Achievements and Challenges**

"Big data" elicits mixed evaluations among scientists and other segments of society. Undoubtedly, there are both positive and negative aspects to consider.

Modern medical knowledge and the ability to make accurate diagnoses rely on a small number of talented and qualified individuals. Clearly, the majority of people do not possess comprehensive knowledge of the advancements achieved in this field across various countries. This limitation could stem from the constraints of human memory or the limited time available to keep pace with the latest developments in this domain. Certainly, a significant portion of medical information and scientific knowledge is accessible through open or closed scientific databases on the Internet or on the websites of information agencies. However, this information is scattered, making it challenging to access systematized knowledge that is easily comprehensible. Access to top-tier medical diagnosis still remains dependent on geographic location and financial resources.

Next-generation artificial intelligence technologies will change all that. Beyond the numerous social implications associated with doctor visits, diagnosis relies on the collection of vast amounts of data including symptoms, anamnesis, medical history, environmental factors, and the prediction of potential outcomes such as diseases. Finding correlations and making predictions is what deep learning (so-called Deep Learning) methods are being developed for. With a sufficient amount of data, such as accurate medical records, the utilization of artificial intelligence in diagnosis transforms any medical specialist into a superdiagnostic. They will become a doctor equipped with the experience of diagnosing and treating tens of millions of patients, possessing the ability to detect hidden correlations and possessing a perfect memory. This is what the Chinese artificial intelligence medical company "RX Thinking", which operates on the "smart medicine" model, aims to develop. The company was established by a Chinese artificial intelligence researcher with extensive experience from Silicon Valley in the United States. This startup specializes in instructing and refining Chinese AI algorithms to develop super precise diagnostic programs. Following the diagnosis, the results can be swiftly transmitted to any region across China.<sup>11</sup> It's interesting that rather than aiming to replace doctors with algorithms, the intention is for it to serve as an assistant application for doctors during the diagnostic process. This means aiding doctors in formulating the right strategy for diagnosis. Additionally, it doesn't compel doctors to entirely depend on its data and recommendations. However, considering that the algorithm continues to evolve by assimilating information from each new medical case, it progressively reduces diagnostic errors. Simultaneously, it may prompt for additional information to finalize the diagnosis process.<sup>12</sup> Once sufficient information is uploaded to convince the algorithm, the

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<sup>11</sup> <<https://medicalfuturist.com/top-artificial-intelligence-companies-in-healthcare/>> [07.01.2024].

<sup>12</sup> <<https://healthitanalytics.com/news/top-12-artificial-intelligence-innovations-disrupting-healthcare-by-2020>> [07.01.2024].



program can accurately predict a potential disease or provide an accurate diagnosis by analyzing the symptoms. Moreover, during symptom analysis, it displays a percentage on the monitor indicating the likelihood of identifying the exact disease based on those symptoms.

The application does not disregard the doctor, who always has the option to make a diagnosis different from the recommendations of the application. However, the application is built on a foundation of over 400 million diagnoses and continuously learns, analyzes, and scans new information or medical publications to provide updated knowledge and trends.<sup>13</sup>

Hence, doctors in the future will be tasked with focusing entirely on comforting patients and exploring positive human factors, which remain essential even today.

Demonstrating positive trends in the development of artificial intelligence through big data extends beyond the field of medicine alone. Numerous examples abound in agriculture, (such as the diagnosis of soil analysis via drones and their assistance in the advancement of agricultural technologies, which promises tremendous results for significantly enhancing yields. Monitoring and sending data through drones of state-sponsored projects for AI program analysis, etc.), transport and logistics, military and defense, etc. in the fields.

When using big data technology, it is imperative to respect fundamental human rights and freedoms, along with principles of information security and dissemination, as there exists a fundamental risk of their unequal utilization. The security of big data, like to a state's territorial borders, holds paramount strategic significance. It serves as a nourishing and decision-making tool for the intelligent software environment.<sup>14</sup>

Despite the benefits and positive impacts of big data, the era of big data also gives reasons for concern. As big data becomes increasingly proficient at predicting various aspects of the world and our place within it, we may find ourselves unprepared for its potential effects on our daily lives and personal freedoms. People's perception of the world and institutions was formed in those eras and realities where the scarcity of information was the basis of our development. And now we are moving into an era in which it becomes completely possible to obtain and process all kinds of information, which will allow the relevant organizations to manipulate people in an unimaginable way. For example, Facebook's business strategy is to create a user-friendly platform where 2.5 billion people can freely share personal photos and videos about themselves, their family, and friends. As of today, this network collects a vast amount of personal information about people, which allows the platform to analyze the behavior of each person, understand exactly what emotions they have, what they like, what they don't like, how they dress or eat, and offer them exactly the ads encouraging them to make purchases. This allows the platform to place premium prices on ads for companies that are targeting their micro-segment of customers.

Facebook founder and CEO Mark Zuckerberg stated during a US Senate hearing, "Because we understand what you're interested in, we can show you specific ads tailored to you." This statement elucidates how Facebook learns and analyzes the behaviors, preferences, daily routines, emotions (via likes and other "emojis"), as well as political, religious, and even sexual attitudes of its 2.5 billion users daily, while scrolling through your Facebook feed you encounter customized advertisements tailored specifically for you.

In 2019, commissioned by Netflix Films, Karim Amer and Jehane Noujaim's documentary "The Great Hack" delves into the influence of the social network "Facebook" on the shaping of advertising and political views. This journalistic investigation is particularly significant in

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<sup>13</sup><https://www.technologyreview.com/2020/07/15/1004743/a-new-rx-ai-for-operations-in-health-care/> [07.01.2024].

<sup>14</sup> *Jolia G.*, Education and Employment in the Digital Environment, Tbilisi, 2021, 37 (in Georgian).

relation to Donald Trump's victory in the 2016 US presidential elections and Great Britain's exit from the European Union (Brexit). The film highlights the connection between these two significant political events and it relates to the activities of the renowned British big data analytics company (Cambridge Analytica) and its direct involvement in both of these campaigns. In particular, "Cambridge Analytica" employees later gave testimony confirming how they used the personal information of US and UK citizens on social networks, mainly Facebook, and manipulated the will of still "neutral" voters, which led to the victory of Trump in the USA, and the victory of "Brexit" supporters in the UK referendum. During a US Senate hearing, Mark Zuckerberg acknowledged the misuse of users' personal information on his platform and issued an apology, he also stated that he was unaware of his company's employees' involvement in Project Alamo.<sup>15</sup>

In 2020, the documentary film "The Social Dilemma" by director Jeff Orlowski premiered on the Netflix platform. Based on interviews with psychologists, IT specialists, programmers, and professionals in the internet field, the film effectively portrays how social networks and search engines can manipulate people using artificial intelligence and big data. Manipulation is not limited to converting network "users" into good "consumers" to encourage them to purchase as many products as possible (even if they often do not need these products), but it also includes changes in people's behaviors, preferences, and political or different views, which undoubtedly violates human rights and freedoms.

## 6. Conclusion

In the modern world, processing big data presents a significant challenge to safeguarding personal data. In the article, we aimed to present both the positive and negative aspects of big data processing from a legal perspective. Indeed, the evolution of big data is an irreversible process, and technologies based on artificial intelligence will continue to advance methods for processing large datasets over time. In this process, personal data protection issues will face big challenges, which require constant transformation of relevant legislation and adaptation to new challenges. Accordingly, I think it is important to modify the functions of the Personal Data Protection Service in Georgia<sup>16</sup> in such a way that it can respond to the ever-increasing personal data processing challenges with fast and flexible mechanisms.

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<sup>15</sup> Project Alamo, the leading project of Donald Trump's 2016 presidential campaign, in which, according to journalists reportedly involved employees from Cambridge Analytica and Facebook. Utilizing big data and artificial intelligence, they allegedly targeted and influenced swing voters, which contributed to Trump's victory in the election. See, <<https://www.thealamo.org/alamo-plan/preservation/black-paper/index.html>>; <<https://semantiko.com/project-alamo/>> [07.01.2024].

<sup>16</sup> <<https://personaldata.ge/ka>> [07.01.2024].

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