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Artificial Intelligence and Personal Data: International and National Framework

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Abstract
In recent years, several questions related to the rapid development of information and communication technologies, to artificial intelligence systems stemming from the processes of digitalization, are difficultly answered in the theoretical literature. The current dynamism and the small number of studies make it necessary to analyze many important points of this sphere. Especially, because of the changing development trends of human rights in the e-society, some relationships remain unregulated. Although the application of artificial intelligence systems is characterized by positive aspects on the one hand, on the other hand, it creates various practical problems. The placement of all personal information in information systems, as a result of the integration of these systems, faces the threat of 'what if privacy issues are disclosed to everyone'. Artificial intelligence systems designed to serve people, often 'interfere' with their privacy. Elon Reeve Musk, a well-known technology entrepreneur, states: 'Artificial intelligence is more dangerous than nuclear weapons.' The main purpose of writing this paper is to help in solving the problems faced regarding the issues mentioned above. In our paper, we have made several suggestions: to give a legal concept to artificial intelligence systems; editing of norms related to digital rights, increasing cyberculture to ensure cybersecurity, etc. Thus, no matter how fast digitalization, automation, science and technology development, it does not imply the unlimited use of artificial intelligence systems. In any case, human rights must be guided, a 'moral approach' must be taken as a basis, and inviolability of privacy must be provided.

Keywords: *Artificial Intelligence, data, human rights, privacy, robot, human*

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Introduction

A trend is a general development or change in the behavior of a society. By adding the prefix 'mega' to the word 'trend', a global concept has been created. Thus, megatrends are the trends that determine the current and future development of the world.

Peter Fisk, a global thinker on leadership and development, innovation and marketing, identifies the following megatrends for 2020-2030 (Fisk 2019): variable economic power; lack of stock (source); technological progress; social changes; rapid urbanization.

Within the framework of technological progress, various megatrends are distinguished. In this regard, various modern approaches are encountered. For example, Bernard Marr lists in his book the following nine technological megatrends that can fundamentally change the world (Marr 2019): datafication of our lives; Internet of Things; The rapid growth of the computer industry proves great technological progress; rapid development of artificial intelligence systems; automation is a continuously running freight train; 3D printing opens up incredible opportunities for manufacturers (and others); interface innovations are radically changing the way we interact with technology; blockchain technology; platforms are the way forward for business.

Bernard Marr's above-mentioned approach is reflected in his book published in 2018. Taking into account the rapid development of technology, we believe that the row of megatrends should be changed. For example, the whole world is already working on the introduction of 5G technology, the project 'Digital Twin' is planned to be applied. Such technological innovations should be included in the list of megatrends. Each of these megatrends individually affects the life of society as a whole, human rights and freedoms. Since the subject of our study is artificial intelligence systems, we will prefer to interpret such systems in terms of human rights and freedoms.

The Paper analyzes the impact of artificial intelligence systems on human rights and freedoms. At the same time, the principles of non-equality of robots with humans, human control, and the application of artificial intelligence systems have been identified. In addition, new rights arising in connection with the application of artificial intelligence systems and areas related to the security of personal data were analyzed in detail.

Although the use of artificial intelligence is used to improve human life, it also creates numerous problems for human rights, especially the right to privacy. This is due to many practical and legal problems: First, international norms on the application of Artificial Intelligence give priority

to the proclamation of principles. But there are difficulties with security and guarantee mechanisms. Second, there is no systematicity in international norms. Third, technical vulnerabilities in personal data protection systems can lead to breaches of privacy and, indirectly, many other rights. Fourth, giving a robot with the ability to think and comprehend the same legal status as a human raises problems such as how liability is defined and applied in the event of future offenses. Finally, the lack of a moral criterion for Artificial Intelligence can lead to many negative human rights abuses.

1. General Theoretical and Historical Approach to the Concept of Artificial Intelligence

Decades ago, artificial intelligence as a legendary image was one of the main factors in films and works. The existence of such artificial intelligence in the minds of historically famous thinkers was imagined as a dream. For example, in ancient times, Aristotle wrote in Politics that if every tool could do its job in the way given to it, or even in the way it was expected, they would weave the sets themselves, or, as the poet says, 'they (aytomatoys) enter the assembly of the Gods.' And if it took place, there would be no need for the work of slaves (Aristotle 1999, 7). Aristotle identified automation as a way out of the liberation of slaves, it was just a dream to talk about robots for that period.

Artificial Intelligence, which was considered impossible in ancient times, was no longer used in the modern sense in the Middle Ages. For example, water clocks, created by the Turkish inventor Al-Jazari; vending machines and fountains used for entertainment purposes.

The claim that the human mind is a physical process in the human nature of Thomas Hobbes (1640), a proponent of mechanistic materialism in the seventeenth century, was not the only basis for modern logic. At the same time, such an approach was the basis for the idea that the human mind could be expressed mathematically. Of course, this also formed the initial theoretical concepts for the formation of Artificial Intelligence.

Similar approaches continued in later periods. Various scientists and researchers have worked on the application of computer technology and the creation of new systems similar to the human mind. A special period in this field is considered to be 1956 when John McCarthy first used the concept of Artificial Intelligence at a conference at Dartmouth College, funded by the Rockefeller Institute. He coined the term based on Alan Turing's definition of computer intelligence (Balayev, et al. 2016, 105).

It is clear from McCarthy's comment that he opposes considering Artificial Intelligence as a biological concept: 'Artificial intelligence must be understood as intelligent machines and technology, especially intelligent computer programs. Artificial intelligence has similar missions with human intelligence in computer use, but unlike human intelligence, Artificial Intelligence does not possess biological factors (McCarthy 2007).'

Analyzing the theoretical-historical approach, it would be unfair to ignore the fuzzy logic theory developed by Lotfi Zadeh in 1965. Besides, the scientist Lotfi Zadeh, who proposed five fundamental scientific theories (Zadeh (1921-2017), laid the foundation for the creation of discrete and digital control, information and communication systems, known as Z-transformation.

The approach to the concept of 'Artificial Intelligence' was formed and developed depending on the historical factors mentioned in the field of technology. It would be useful to focus on a few theoretical concepts.

B.J.Copeland believes that Artificial Intelligence is the regularity of a computer or a computer-controlled mechanism to perform a purposeful activity inherent in conscious living beings (humans) (Copeland 2020).

Authors such as A.N. Averkin and D.A. Pospelov described Artificial Intelligence as an intelligent system that reflects the elements of consciousness that distinguish human beings from other living beings in general and realizes creative activity (Averkin et al.1992, 256).

The application of Artificial Intelligence is determined by the implementation of four main functional elements, which include:

- *Voice (voice recognition)* – During voice recognition, the program uses several sound parameters (for example, the frequency and length of the sound wave). For example, when talking to Alexa, a popular voice assistant, the program splits your voice into 25-millisecond parts and then digitizes each part. These digital codes are then compared to an internal catalog of program sounds. When the number of matches is sufficient, Artificial Intelligence 'translates' the numbers (codes) into the alphabet it 'understands'.
- *Image (visual recognition)* – is based on the ability of the visual image received by the system and converted into code, to read the code and react quickly. For example, Apple uses the Face ID facial recognition system to unlock the device for iPhone users. The social media giant Facebook uses facial recognition to recognize members or friends who have been tagged in photos. Some U.S. airports use facial scanners in partnership with the government to improve how travelers enter and exit the United States, and some large airlines use facial scans to help check passengers on flights, luggage, and seats. In fact, the National Institute for Human Genome Research in the United States is using the virus to detect a rare disease that causes a change in appearance, known as DiGeorge syndrome. Interpol is also collecting habitoscopic facial

recognition signs in more than 160 countries, which it believes will help prevent international terrorism.

- *Conversation (word algorithms)* – speech is performed using words, algorithms, previously entered into the database. Examples include software such as Natural Language Toolkit (NLTK), AlchemyAPI, Expert System S.p.A., Modular Audio Recognition Framework, General Architecture for Text Engineering (GATE).
- *Judgment* – functions such as rational 'thinking' and decision-making, problem-solving, analytical reaction are based on the analytical analysis. This application can already be considered a more rational form. Because Artificial Intelligence created here can think and make judgments as a human being. For example, the first artificial intelligence technology to be used in law was a robot called ROSS, developed and programmed by IBM. The robot used in Bernie Medoff's case, one of the most notorious fraud cases in the United States, played a major role in solving the criminal case based on the materials obtained and analytical skills. Following the incident, Baker & Hostetler, a well-known law firm, announced that they would use the robot as an employee. In particular, ROSS combines functions such as advocacy, legal advice, analysis of claims, and filing according to the situation.

1.1. Advantages and Disadvantages of Artificial Intelligence Systems

Artificial intelligence, which was first tested in the laboratory and put into practice, and today finds its place in many areas of human life, is considered one of the greatest achievements of modern technological innovation and science. Artificial intelligence is algorithmic programming that is purposefully applied by humans and loaded on robots and machines. The main benefits and advantages of the application of Artificial Intelligence can be summarized under several headings:

- Creation of professional systems: At present, the goal is to form a more professional system, increase efficiency and minimize errors by switching to Artificial Intelligence in many areas of human activity, ie the use of live labor. The goal is to ensure uninterrupted production through the industrial application, increase productivity, and produce more products at lower production costs. For example, with the 4th industrial revolution, there is already the experience of carrying out production without live labor. One of them is the concept of continuous production without manpower, known as 'dark factories'. As can be seen from the name of the dark factories, production is based on the application of machines at all stages of the production process without the need for lighting and people. Especially in many heavy industries high temperature, heavy parts, toxic gases, and the difficulty of

applying live manpower in inappropriate conditions make the transition to robotic production with the use of Artificial Intelligence necessary. The first 'dark factories' were set up in China by a mobile phone details company. Each robot mechanism replaced 6-8 workers, and the number of workers in the factory was reduced from 650 to 60 people. In this way, the company eliminated 90% of the human workforce. The product defects decreased by 80%. (Carr 2017). Material loss during production was reduced from 25% to 5% (Alkan 2020);

- Increase productivity in production and other activities: it is intended to increase both assets and reduce liabilities. For example, the production process aims to minimize losses (liabilities) while achieving greater productivity (assets) over a period of time;
- Reduce other costs of production and activities: As can be seen from the example above, a reduction in the labor force will result in a lower wage fund, more professional workers will be able to pay more, losses will be minimized, and efficiency will increase;
- Ability to attract less labor and fewer resources;
- Minimize energy consumption;
- Faster integration into the world market and increasing competitiveness;
- Creating remote control systems: Examples include innovative products such as smart homes and smart cars;
- People will gain more time: With the application of Artificial Intelligence, Artificial Intelligence is already operating in many areas of human activity, and as a result, there is less need for live labor, which allows people to spend more time on their personal development;
- Ability to achieve high results in the treatment of many diseases: As noted, the achievements of Artificial Intelligence are now used in medicine, and the possibilities of its application from time to time are expanding. Effective results are obtained through medical examinations, prescription-based examinations, surgeries and the use of Artificial Intelligence in many areas.

One of the most important achievements of modern technological innovation is the application of Artificial Intelligence, along with its benefits and harms. The disadvantages of using Artificial Intelligence can be summarized under several headings:

- Loss of relevance of the live labor force: The application of Artificial Intelligence in the manufacturing, service sectors and other areas minimizes the urgency and necessity of using the labor of people with a live labor force. This leads to mass unemployment with the reduction of staff. For example, the use of Artificial Intelligence in a Chinese mobile phone parts factory reduced the number of employees from 650 to 60 people. Although the regulations and principles adopted on ethical issues related to the application of Artificial Intelligence state that AI is in no way superior to the human individual, the

principles and regulations expressed with the expansion of the practical application of Artificial Intelligence remain only on paper;

- Problems of reliable protection of identical data: Especially in recent years, many companies are using chatbots, robot-assistants. In a dialogue, these chatbots may require certain information from people, many of which is personal information of people. Of course, in this case, the issue of reliable enforcement of this information, its protection, non-transferring to third parties is relevant. However, taking into account that there is no necessary legal regulation to insure against such problems, then such problems are of serious concern;
- Offenses and problems of legal regulation: The application of the achievements of Artificial Intelligence in various fields necessitates the formation of a new system of legal regulation. For this, legal norms must be further improved and become the main provider of the technological renaissance, rather than an obstacle. For example, traffic violations by driverless cars can be fatal. In this case, the question of which entity (car owner, driver, car manufacturer, software company, etc.) will be held accountable creates serious problems. Or one of the problems is the problem of the artificial intelligence system in the labor process (production, services, etc.) and which entity (employee, manager, manufacturer, software company, regulator, etc.) is responsible for its severe consequences;
- High financial and infrastructural requirements: Many manufacturing companies are currently working on the application of Artificial Intelligence. However, the application of Artificial Intelligence is currently costly, which allows large companies to use these systems. Other small and medium-sized companies have to stay out of the process. This can destabilize competition between them on the one hand, and monopolize it on the other. There is also a need to create new infrastructure in many areas related to the application of Artificial Intelligence. For example, in areas where driverless cars are used, it is necessary to install traffic signs, traffic lights, pavements, sidewalks and other signs and elements that can be read by these cars, all of which are expensive;
- Cyber intrusions: Artificial Intelligence is based on pre-written algorithms. It incorporates hardware and software. Reliable security systems must be established to prevent long-distance cyber-intrusion into the system and the 'possibility' of its use for personal gain.

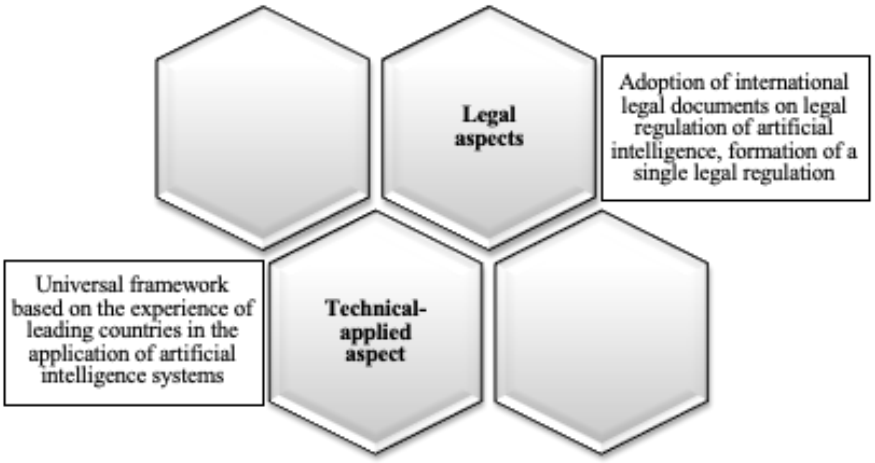
2. International and Legal Regulations

The rapid development of artificial intelligence systems has now led to a state of 'confusion' in all countries of the world. Because questions such as the scope of application of the new models and the results expected from

this application are relevant today. In fact, some authors point out that even though IBM's Watson is a perfectly functioning system, people do not know how to benefit from it (Martinez 2018, 92). In our opinion, it would not be right to be so pessimistic about the issue. The current experience once again confirms such positive aspects of the system itself. For example, Watson Assistant is an artificial intelligence platform that helps you answer customers' questions quickly, correctly and accurately through any application, device or channel. By automating responses to common queries, Watson Assistant simplifies the work of agents and operators in companies using this application and reduces the risk of freezing and breakdowns during peak hours (IBM 2020). Or another example: General Motors (GM) can provide more in-depth and operational information on strategic, audit, operational and financial risks and controls by integrating Audit, Risk and Control Management into the IBM OpenPages Watson platform (IBM 2020).

The list goes on and on. This means that there is no need to be pessimistic about the use of artificial intelligence systems. Of course, each newly created event and process initially presents a different problem. In order to eliminate such problems, it is necessary to make changes in both international and national legal regulations.

Different spheres of artificial intelligence systems are applied in different countries. The experience of advanced countries from time to time forms a universal experience, and other countries of the world also benefit from this experience. The international experience of Artificial Intelligence can be approached in two contexts:



The contexts of the international framework of Artificial Intelligence

The universal application of Artificial Intelligence, based on the application of human intelligence elements in machines, must be conditioned by many key principles, such as its social, material and spiritual usefulness, and respect for human rights and freedoms. That is, Artificial Intelligence should not become a threat to society and a risk factor for basic legal principles. In order to ensure all this, in 2017, the Future of Life Institute organized the Asilomar Conference with the participation of lawyers, economists, scientists and experts in the field of social sciences, including engineers and experts in several technical fields. This conference went down in history as the best conference in the field of artificial intelligence, and as a result of this conference, an international legal document covering twenty-three principles was adopted under the title 'Asilomar Principles of Artificial Intelligence' (Future of Life Institute 2017).

Asilomar Artificial Intelligence Principles are divided into 3 categories: research; ethics; values and long-term issues. From a legal point of view, we are interested in the principles that belong to the second category, which include: Security; Transparency in damage identification; Transparency of judgment; Reconciliation of values; Responsibility; Humanism; Personal immunity; Freedom and inviolability; Benefit sharing; Welfare sharing; Human control; Non-subversion; Artificial intelligence arms race.

In accordance with these principles, the goals and motives of the application of artificial intelligence systems, 'behavior' must always be in harmony with human values, not contradict them. The manufacturer, software-company, mechanism owner or other relevant entities shall be liable for any misuse of artificial intelligence systems, illegal use, or any material or moral damage resulting from the use of Artificial Intelligence. The scope of responsibility must be measurable, the limits must be determined in advance. The application of artificial intelligence systems must be in the interests of the individual, society and the state and benefit more people

Risks, general benefits, and other this kind of principles, which fall into the third category also express the ethics of the application of artificial intelligence systems.

As can be seen, the Asilomar Principles in any case emphasize the human factor in the application of artificial intelligence systems, preferring human control. This means that international law does not equate Artificial Intelligence to man and does not give him rights and freedoms. In this case, the recognition of Sofia's citizenship is somewhat questionable. We believe that it is better not to equate the created robots with human beings, to concentrate control over their control in the hands of people.

3. Problems in National Legal Regulation

It should be noted that although artificial intelligence systems serve to ensure human rights, they are new concepts and create problems in legal regulation. These problems can be conditionally grouped as follows:

1. The need to form a new legal regulation.

With the development of ICT, new concepts are emerging that it is necessary to have a legal basis for their regulation. For example, although the 'artificial intelligence system' is used in practice today, the Law of the Republic of Azerbaijan 'On Information, Informatization and Information Protection' does not provide for the definition of this concept, nor is there a norm in related areas. It is true that the concept of 'information system' is reflected in the legislation. However, it would be wrong to combine artificial intelligence systems under the term 'information system'. Because information systems are organized at the national level, but artificial intelligence systems are regional and international. For example, reference systems or ADIS system.

The information system is an organized set of information technologies and documents organizationally and technically, including the use of computer technology, and does not have the ability to analyze and judge. In short, an information system is a system that provides the information we enter into it when needed. An artificial intelligence system is a system that can analyze the information we enter and present results. The question arises: what changes in the processes that take place during the analysis of information by artificial intelligence systems, and the need to legalize it? – The point is that the information available in information systems is already placed in a pre-regulated manner. Subsequent conditions for obtaining this information are also determined by law. However, since the issues related to the new information posted by the artificial intelligence system are not regulated, the question of whether this information violates human rights and freedoms is questionable. For example, Unisys, a US technology company, has developed an integrated customs risk management system called LineSight, which has been used to prevent another crime in recent years. Thus, the risk analysis of Roman and Sandra did not reveal any problems with their identification and permits. However, the LineSight algorithm has determined that Roman has been in different countries frequently in recent years and that there are minors with different identities on each trip. The system also revealed that Roman's payment card for a plane ticket was linked to a pornographic media company in Eastern Europe. This prevented another crime of human trafficking (Kendrick 2019). Of course, in terms of crime prevention, the application of this artificial intelligence system is very effective. However,

from the point of view of human rights, for us, everyone should be protected and protected by law, regardless of whether the person is a criminal or not. In this case, do the exclusion of both countries from the system, the analysis of the circle of persons traveling together and other such points violate the right to privacy? - In order to eliminate such obscure points, the rules of application of artificial intelligence systems should be regulated from a legal point of view.

2. Legal uncertainty or incompleteness.

This problem can be explained in two ways: First, the imperfections in the existing norms create problems in their application. Secondly, there is confusion about which norm should be applied to the current attitude. For example, how will liability be determined in accidents involving driverless cars? Or if a robot harms human life, who will be responsible?

3. 'Aging' of laws, ie obsolescence.

Due to the new society requires a new legal regulation, like many concepts, the norms governing them become obsolete and no longer meet the requirements of the time. For example, traditional forms of regulation for various types of activities already carried out by electronic systems are losing their relevance. Therefore, there is a need to revise these norms.

We would like to note that the existence of these legal problems should not lead to a pessimistic approach to the application of artificial intelligence systems in our country. Thus, in the second half of 2019, according to the global artificial intelligence index published by Oxford Insights, the Republic of Azerbaijan ranks 64th.

4. Robot or Human?

Within this paragraph, we aim to answer the following questions:

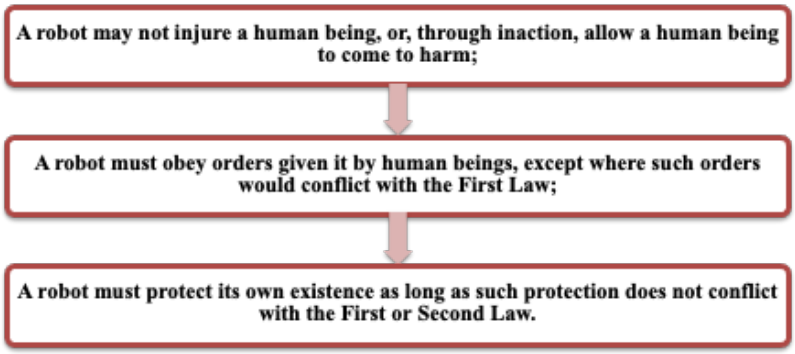
- Can a robot be considered a subject of law?
- How to determine the responsibility of robots?
- Is it true to call artificial intelligence systems 'smart systems'?

We would like to begin answering these questions with the words of the English mathematician and cryptographer Alan Turing: 'If a computer can convince a person that he is also a human being, then that computer deserves to be accepted as intelligent.'

According to A. Turing, who evaluated computer intelligence with the test he proposed in his article 'Computing Machinery and Intelligence' (Turing 1950) published in the journal 'Mind' in 1950, If it cannot determine which

one is provided by the computer, that is, if the computer can 'deceive' a person, then that computer can be considered intelligent.

In general, from the first day of the creation of robots, concrete principles have been put forward, where human rights are definitely at the forefront[1]



Three laws of AI

The main problem is that a person has an emotional intellect, and this intellect covers five basic abilities: 1. Self-understanding; 2. Emotion management; 3. Self-motivation; 4. Understanding the emotions of others (empathy); 5. Social skills (identifying ways to manage behavior and attitudes) (Bakhtiyar et al. 2019, 19).

The question is: Can an artificial robot have these qualities? Can it control its emotions? - In fact, emotional intelligence is a purely human quality. Such elements can be transferred to a robotic human model. However, it is impossible to manage them. There is even an interesting approach in the literature. In the article 'Risks of Using Artificial Intelligence to Interpret Human Emotions,' the authors cite the tourism industry as an example: '...Artificial Intelligence often does not have a complex enough structure to understand and express cultural differences in the expression and reading of emotions, for example, a smile can mean one thing in Germany, and something else in Japan. Mixing these meanings can cause it to make the wrong decisions. Imagine that a Japanese tourist needs help while shopping in Berlin. If the store uses emotion recognition to prioritize which customers it will support, the store assistant may make a mistake by evaluating their smiles as a sign of courtesy at home instead of 'an indication that they don't need help' (Purdy et al. 2019). Indeed,

[1] These three laws were proposed by Ishaq Asimov in 1942 in the book 'Runaround'.

a smile is an expression of different feelings. Artificial Intelligence may have difficulty identifying these feelings. But if Artificial Intelligence can detect different human emotions, why not have emotional intelligence? For example, the feeling of lying can be identified by various devices. The famous «Avatar» asks a person a variety of questions in front of customs inspectors with the support of Artificial Intelligence and can determine the vibration of speech, excitement, speed of blood flow, tension and other such internal processes. It should be noted that the interrogation of persons under the customs control procedure allows customs officers to draw certain conclusions about these persons. However, during the interrogation, there is no guarantee that the person in front of you will achieve his goal by giving false information. As a result, the questioner comes to a certain conclusion based on the speech and body language of the person in front of him and naturally has limited opportunities to come to a definite conclusion. Aaron Elkins, a computer scientist at the University of San Diego, believes that in only 54% of cases is it possible to determine by the observation that the person in front is lying. However, in contrast, artificial intelligence-based surveillance devices can detect false information in 80% of cases. Thus, these monitoring devices can monitor a person›s blood flow rate, muscle condition and other similar internal processes (Future Travel Experience 2017).

As another example, we can mention Cogito's Call Centers that help call center agents determine how customers manage their phone moods and conversations in real-time. Cogito's sound analysis program is based on years of research on human behavior to identify sound patterns (Somers 2019).

An example is a polygraph itself, which is used in the investigation of various crimes. But the fact is that all these devices determine emotional feelings based on physiological processes. In short, it is too early to say whether robots have emotional intelligence.

5. Aspects of the Impact of Artificial Intelligence Systems on Human Rights

Even new rights have begun to emerge alongside traditional ones. For example, to neutralize the chip. In general, the impact of Artificial Intelligence on human rights can be characterized as follows:

The impact of AI on human rights (by authors)

The first direction is characterized by the fact that the processes of informatization and automatization do not hinder the realization of rights in the traditional form. The choice is up to the individual.

The second direction involves the realization of traditional rights by new electronic methods. For example, the impact of computerization has led to changes in the realization of labor rights. The use of electronic information systems creates a favorable environment for everyone to easily obtain information about their work. In addition, innovations in modern society have given impetus to the development of labor relations in the form of remote labor relations. Execution of work in remote labor relations, delivery of work results is carried out with the help of ICT, especially computer networks and Internet technologies. Thus, in a remote employment relationship, the employer and the employee may be hundreds of kilometers away from each other, and the Internet acts as an intermediary to send the results of the work, the money between the employer (customer) and the employee (executor). Settlements are made by bank, post or electronic payment.

The third direction is the formation of new rights based on the requirements of the time. For example, the right to be forgotten. The emergence of this right stems from the desire of people to 'develop themselves and continue to live independently for the rest of their lives or from time to time for any negative actions or activities they have done in the past, without being' stigmatized 'or criticized.' For the first time, in the case of Google Spain SL, Google Inc. v Agencia Española de Protección de Datos (AEPD), Mario Costeja González, the Court of Justice of the European Union noted this right:

'According to Mr. Costeja González and the Governments of Spain and Italy, a subject of the information may object to being indexed by a search

engine associated with the dissemination of information through a search engine and to those who have fundamental rights to the protection of that information; is above the legitimate interests of the system operator' (CJEU (Grand Chamber) 2014).

It should also be noted that in many cases, the existing conditions do not allow a person to choose a traditional or non-traditional form of realization. Thus, the availability of electronic document exchange in many workplaces has minimized the level of appeal to paper carriers.

Some authors who have studied the impact of Artificial Intelligence on human rights distinguish between positive and negative impacts, and suggest two steps: Establish the Baseline and Identify the Impacts of AI (Raso, Filippo and Hilligoss, Hannah and Krishnamurthy, Vivek and Bavitz, Christopher and Kim, Levin Yerin 2018, 14). At the same time, while analyzing the impact of Artificial Intelligence on six areas (Criminal Justice, finance, healthcare, content, moderation, human resources, education), the authors exclude self-driving vehicles and autonomous weapons systems. They note that these issues have been studied more closely, and that the issues surrounding autonomous weapons systems should be more relevant to international humanitarian law (Raso et al. 2018, 17).

6. Personal Life, Personal Immunity and Personal Data Transferred to the Data

According to the Strasbourg Court, 'private life' is a broad term that cannot be defined (Roanya 2012, 12). In general, the right to establish relations with the environment, the right to self-determination and personal independence, the right to choose a name and surname, and other rights that the notion of private life contains are enforced and protected by law as a concept that includes rights. In the digital age, the placement of personal data in electronic systems raises the issue of redesigning mechanisms to protect this right.

Historically, in 1890, Harvard Law Review published an article entitled 'Inviolability of private life' by Samuel Warren (1852-1910) and Louis Brandeis (1856-1941) by which this notion got a new status and became reflected in constitutions of all the states of the world.

According to the European Commission, personal data is any information related to an individual that identifies or can identify a person. Therefore, personal information is legally considered as individual information, which means that registered personal and family life information is considered individual information.

In line with advances in technology, businesses and governments are increasingly turning to data applications based on 'profile creation' and 'automated decision-making mechanisms' to collect personal data and predict the behavior and needs of their employees. Banking, finance, health, taxation, insurance, market and advertising are the main areas in which decision-making and automated decision-making mechanisms are used more regularly (Article 29 Data Protection Working Party, 3 October 2017). When a data system is processed by data acquisition methods, it seeks to predict the behavior and character of individuals. This situation emerges in the literature as profile creation and segmentation. Some researchers explain the creation of a profile by processing the personal data of a certain category of people, again producing information about that group of people or knowledge (inferences) and using them to make assumptions about the qualities and behavior of individuals (Hildebrandt 2008).

The way individuals and groups are managed, directed and shaped depends on the profiles created. The reason for it is that the behavioral dimensions produced are adapted to different groups and profiles through classification algorithms. Using the profile, American retailer Target analyzed individuals' 'probability of pregnancy' accounts by analyzing purchase models of 25 products in order to send customers coupons that may be of interest depending on what month they are pregnant. However, this situation has caused serious problems for minors who hide their pregnancies from their families.

The systems that are supposed to shape users' identities guide people in matters such as when and how they will do something, what they can buy, which route they will take, and with whom they should connect and network (Vries 2010, 71-85).

Advances in Artificial Intelligence and computer technology have made it easier to use profile-oriented and automated decision-making mechanisms that have a major impact on individuals' rights and freedoms (Article 29 Data Protection Working Party, 3 October 2017). This growing activity in parallel with the development of technology has been repealed by the European Parliament and the the Council of the EU Directive No. 95/46 / EC, which came into force on adopted on October 24, 1995, and invalidated October 25 by the adoption of, General Data Protection Regulation (GDPR) 2018. As a follow-up to this Directive, the General Data Protection Rules, which fill countless gaps and adapt to today's conditions, focus on both profile creation and automated decision-making mechanisms, as well as the gathering and collection of personal data for profile creation. Some adjustments can be made. However, the Law of the Republic of Azerbaijan 'On Personal Data'

does not contain any information on profile creation or automatic decision-making mechanisms.

Paragraph 4 of Article 4 of the General Data Protection Regulation of the European Union (GDPR), entitled 'Definitions', defines 'profiling' as follows: 'profiling; automatic use of personal data to assess certain personal qualities concerning a real person, in particular, to analyze or predict the qualities of that person's work quality, financial situation, health, personal desires, interests, credibility, rules of conduct, place of residence or activity' (European Parliament and Council of the EU 2016). According to this definition, a profile is an activity that uses/processes personal data, automatically processes data, and is used to assess certain personal qualities related to a real person. Consequently, the activity of creating a profile is divided into certain parts according to the fact that the automatic activity contained in the concept is partially and completely automatic, and also whether the collected personal data is processed by a decision-making mechanism. For example, if the information collected for the purpose of creating a partially or completely automatic profile has not yet been evaluated by a decision-making mechanism, it is considered a 'general profile'. If this information is evaluated only by people using a decision-making mechanism, it is considered a 'profile that benefits from automatic decision-making mechanisms'. Although this information is based on automated decision-making mechanisms made entirely by an algorithm, regardless of human evaluation, then it will be considered a 'profile based on a fully automatic decision-making mechanism'.

6.1. Processing of Personal Data and Automatic Decision-making Mechanisms in Artificial Intelligence Systems

Today, more and more lending banks, insurance companies, recruitment agencies, advertising agencies use the information in the profiles to evaluate the information obtained through automatic decision-making mechanisms. Automated decision-making mechanisms are beneficiary in the use during the amount of credit to be issued to individuals and the level of risk in repaying the loan which depends on the current credit history, frequency of obtaining a loan, whether or not you work in one place, salary, other loan payments, the ratio of payments to total loans, etc., in order to regulate entry and exit in large companies with thousands or tens of thousands of employees in systems that calculate loans in the form of 'credit risk registration', and by it keep the number of employees to a minimum, to make a fair assessment in accordance with ethical rules (Tikkinen-Piri et al. 2018, 141).

A feature that distinguishes automatic decision-making mechanisms from profiles is the 'one-man intervention' factor. Algorithms in automatic decision-making mechanisms do not involve human intervention but are the result of an evaluation made entirely by a decision made by the algorithm on its criteria. The best example of this is an automatic credit risk assessment based on a person's credit history and habits. It does not matter whether an individual profile is created as a result of assessments made in automated decision-making mechanisms. In addition to the use of automatic decision-making mechanisms in the profile, there are also profiles created without the use of these mechanisms. For example, administrative sanctions for speeding on highways are a non-profiled decision-making mechanism. On the other hand, it is possible to make a decision based on profiles by creating private driving profiles for individuals by following a person's driving habits over a period of time.

Thus, the application of Artificial Intelligence simplifies the work of collecting personal data and other similar processes. But the lack of accountability and regulation by various companies also has a negative impact on human rights. It is written in the literature that as the AI is perceived as an improvement of modern society, the lack of stringent Data Protection policies offers Tech companies a society ready to be digitally exploited (Baweja and Singh 2020). In this regard, it is proposed to increase 'AI literacy', which would help communities to learn not only about the functions of AI.

6.2. Artificial Intelligence Systems and the Rights of the Person on Whom the Information is Collected

From artificial intelligence systems, the rights of a person collecting information about the protection of personal data can be defined in four categories: the right to access, correct, delete, protest, the existence of automatic decision-making, including profile creation, and the importance of business activities, the right to provide important information based on the logic of the work, including the preliminary results, and the right to create a profile, request human intervention and explain.

1. The right to obtain, correct and delete information

Article 7 of the same title of Chapter 3 of the Law of the Republic of Azerbaijan 'On Personal Data' 'Rights of the Entity' lists the rights as follows: availability of personal data about oneself in the information system, obtaining information about their owner or operator (7.1.1.); to demand legal substantiation of collection, processing and transfer of personal data about

himself in the information system to third parties, to receive information on the legal consequences for the subject of collection, processing and transfer of this information to third parties (7.1.2); to get acquainted with the content (7.1.3.); to know the purpose of collection and processing of personal data about himself in the information system, term of processing, methods, persons authorized to get acquainted with his personal data, as well as the scope of information systems to be exchanged (7.1.4.); To demand clarification and destruction of personal data collected and processed in the information system about him, except for the cases established by the legislation, as well as to apply for the transfer of such information to the archive in accordance with the established procedure (.4.); 7.1.5.) To demand a ban on the collection and processing of personal data about himself (7.1.6); to obtain information on the sources of personal information collected and processed in the information system, to demand proof of the legitimacy of that information (7.1.7) .); to demand protection of personal data collected and processed in the information system (7.1.8); to receive information on the existence of the certificate of conformity and state examination of information systems containing personal data collected and processed (7.1.9.); to use other rights defined by other normative legal acts (7.1.10.)

General Data Protection Regulation (GDPR)states that a person about which the information is collecting who on grounds of the has the right to obtain the information Article 15 (total 4 paragraphs); request information to be corrected in 16 (single paragraph), and the right to delete or forget information which is regulated in Article 17 (only 3 points). According to Article 15, paragraph 1, of the General Data Protection Regulation (GDPR), entitled 'Right of access by the data subject', the relevant person is responsible for the processing of personal data and has the right to obtain confirmation from the person responsible for the data and, in this case, to include the following information in his / her personal data (European Parliament and Council of the EU 2016): Purposes of processing; Related personal information categories; Buyers or buyer categories where personal information will be disclosed, especially buyers in third countries or international organizations; If possible, the recommended period for which personal data will be stored, or, if not, the criteria used to determine that period; Existence of the right to demand or object to the person in charge of the data the correction or deletion of personal data or the preparation of personal data processing in connection with the subject of the data; The right to complain to test takers; Existing information based on sources in cases where personal data is not collected from related parties.

In accordance with Article 15/2 of the General Data Protection Regulation (GDPR), if personal data is transmitted to a third country or an international

organization, the person concerned has the right to be informed of the relevant security measures in accordance with the rules outlined in Article 46. According to Article 15/3 of the General Data Protection Regulation (GDPR), those responsible for the data will provide a copy of the personal data process to the person concerned. A small amount of information may be required regarding the information provided to the person. If the transfer of information is required electronically at the request of the person concerned, the information will be provided electronically. According to Article 15/4, the rights and freedoms of others shall not be infringed during the issuance of the copy referred to in Article 15/3 (European Parliament and Council of the EU 2016).

The right to request correction is regulated in a single paragraph of Article 16 of the GDPR, entitled 'Right to rectification', which is reflected in Section 3, entitled 'Rectification and erasure'. Therefore, the person concerned has the right to request the responsible authority to correct the incorrect information about him as soon as possible. The goal is to fill in the gaps in a person's personal information.

The right to delete or forget information is again regulated in Article 17, entitled 'Right to erasure (Right to be forgotten)' in Section 3, in only 3 paragraphs. According to Article 17/1 of the GDPR, the person concerned has the right to request the deletion of personal data about him, including unnecessary delays, and the responsible body is obliged to delete personal data, including unnecessary delays if one of the following requirements applies ((European Parliament and Council of the EU 2016):

- There is no longer a need for personal data collection purposes or other processing purposes;
- Refusal of the consent of the person concerned in accordance with Articles 6/1 and 9/2 and the absence of any other legal requirement for its application;
- Objection of the relevant person to the processing of information;
- Illegal use of personal data;
- The importance of deleting personal data in order to comply with the law of the Union and the Member States to which it is subject.

2. The right to protest and seek redress

The right to protest and claim damages is regulated by paragraphs 2 and 3 of Article 7 of the same title of Chapter 3 of the Law of the Republic of Azerbaijan 'On Personal Data' entitled 'Rights of the Subject'. Paragraph 2 of the Article regulates the issue as follows: the subject has the right to object to the collection and processing of information about him, except in cases where the collection and processing of personal data are mandatory in the

manner prescribed by law. Paragraph 3 of the Article regulates the issue of objection as follows: The subject has the right to object to the collection and processing of personal data in this way, except in cases where the decision made as a result of the collection and processing of personal data through information technology violates the interests of the subject except for cases where it is prescribed by the legislation of the state.

3. The existence of automatic decision-making, including the creation of a profile, and the right to provide logically relevant information, including the importance of the activity from a personal point of view and the expected results

It is important to educate the person involved before making a decision with algorithmic systems in order to influence the correct decision making. According to the General Data Protection Regulation (GDPR), Article 22/1 of the person responsible for the data, whether the personal data is obtained from a related person or not and, in addition to acceptable and sound information about the existence of automatic decision-making, including the creation of the profile referred to in Article 22/4, and the logic used in the assessment, provide relevant information to the person concerned about the significance of such activities; there is an obligation to ensure that transactions are fair and transparent to the person concerned. Consequently, this obligation of the person responsible for the data forms a right from the point of view of the person concerned. Therefore, it is important to know whether the profile of the person involved is personal, whether an automated decision-making mechanism is used to evaluate the data, how the system works, the importance of processing personal data in this way, and the ability to influence the individual has the right to request an explanation. The Law of the Republic of Azerbaijan 'On Personal Data' does not contain any regulation to provide a logical explanation based on the system.

4. The right to create a profile, request human intervention and request an explanation

Article 22 of the GDPR deals with the creation of profiles with automatic decision-making mechanisms, and the issue of automatic individual decision-making, including profile creation, is regulated under the heading 'Automated individual decision-making, including profiling'. According to Article 22/1 of the GDPR, the person concerned has the right not to submit, reject/object to a decision based solely on automatic action, including the creation of a profile, which has 'legal or similar significant effects on him'.[2] Article 9 of the GDPR provides for personal data indicating racial

[2] The term 'similarly significant effects' here is given in paragraph 71 of the GDPR as 'or

or ethnic origin, personal data revealing political views, personal data revealing religious or philosophical beliefs, personal data revealing trade union membership, genetic data, biometric data (identification were used for making), health-related data, data related to a person's sexual life, and data related to a person's sexual orientation to be considered 'specific data'. Article 6, paragraph 1, of the Personal Data Protection Law of the Republic of Turkey No. 6698 stipulates that race, ethnicity, political views, religious and philosophical beliefs, religion or other beliefs, clothing, membership in a circle or trade union, health, sex genetic and biometric data, along with data on life, convictions, and security measures, were listed as 'private data'. Article 2 of the Law of the Republic of Azerbaijan 'On Personal Data' entitled 'Basic Definitions Used in the Law' provides that any information that directly or indirectly identifies a person may be considered as personal data, including race or nationality, family life, religious beliefs and convictions, information related to health or conviction was classified as special category personal information. Comparing the above, we see that the features included in the concept of both individual and special categories of personal data are limited.

According to Article 22 of the GDPR, stakeholders have the right not to be subject to decisions that have legal consequences or have similar implications for them, rather than what they deem important. The source of this is the principle of deprivation. In cases where a person has been punished or deprived of a right, he or she has the right to learn the necessity of the decision. As a rule of law, the state must explain its decisions within the framework of the principle of justification in order to ensure the legitimacy of its actions. It is the most natural right of the legally and socially affected persons to seek explanations and information.

The right, expressed in the form of 'human-in-the-loop' regulated in Article 22, decisions made by automatic decision-making mechanisms are explained in the form of obtaining opinions on human intervention and protesting against the decision. The time it takes for an algorithmic decision-making

similarly significantly affects him or her' as a continuation of the definition of 'where it produces legal effects concerning him or her'. The first concept means 'creating legal effects on the person himself'. The term is used in the sense of 'or similarly affecting a person significantly.' It is a matter of debate how the concept of 'similarly significantly affects' in the doctrine. However, paragraph 71 of the GDPR provides an example of situations that could lead to such effects, such as 'automatic refusal of an online credit application or e-recruiting practices without any human intervention.' Based on these examples, it is seen that programs that create 'similar significant effects' are limited to two examples that affect a person's economic situation (borrowing and hiring). At this point, the definition of 'profiling' in both Article 71 and paragraph 4 of Article 4 of the GDPR, entitled 'Definitions', will help.

system to support a person's arbitrary decisions by providing information or analysis is called a human-in-the-loop (Goldenfein 2019).

The following questions need to be answered in the context of GDPR:

1. Should human intervention not exist at any stage of the automated decision-making process? To what extent can human intervention be done?
2. What kind of demand should stakeholders make when they require human intervention in an organization?
3. What should institutions explain to those who require human intervention?

It is important that the person reviewing the algorithm system be responsible for (Binns and Gallo 2019): how the artificial intelligence systems work and their limits; to be able to learn that the system is misdirected and to understand the reasons; to approach shortcomings with a minimum of suspicion, taking into account the frequency with which the system may be defective; be able to give meaningful explanations regarding the rejection or acceptance of an algorithmic system defect.

Designing a system with an explanatory model, keeping the decisions of the system under long-term control after taking measures such as instructing the reviewers, analyzing how many times the system reviewers accept or reject the decisions of the system, will be important in determining whether it will be accepted as a completely automatic decision-making mechanism.

Conclusions

The impact of Artificial Intelligence on human rights, which encompasses human life in a digital society, is obvious. This effect, which is analyzed in the paper more in the plane of right to privacy, is often of a dual nature. Thus, a person may be deprived of certain rights for the violation of Artificial Intelligence created to improve his life. Of course, since the creation of Artificial Intelligence requires large financial resources, there is a greater risk that the legal regulation will be concentrated in the hands of large companies. Therefore, the mechanisms and responsibilities of the application of artificial intelligence systems in international law must be clearly defined.

In the paper, we have analyzed the problems of national practice in the application of artificial intelligence in three groups. To overcome these problems, existing laws must be redesigned in accordance with the requirements of the time.

The threat posed by Artificial Intelligence to the security of personal data is also an urgent problem of the time. This problem must be solved both within the mechanisms of application of artificial intelligence and information

security. As an integral part of the information policy of states, information security must be provided in technical, legal and organizational form.

The application of artificial intelligence systems should serve to improve human well-being, in any case, the principle of humanism should be followed and a 'moral approach' must be taken as a basis, and inviolability of privacy must be provided. In short, the use of Artificial Intelligence should not lead to any restrictions on people's freedoms, while ensuring the inviolability of people's privacy and family life. These systems should be used for human-defined purposes and should not be out of human control. Artificial intelligence systems must be produced and used by ensuring such fundamental principles as respect for human rights and freedoms, legitimate interests, equality, tolerance and humanism. At all stages of the process of data collection, processing and use of artificial intelligence systems, any deviations that could endanger people's personal safety should not be allowed, and people should be able to control all processes.

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