
Artificial Intelligence - An Opportunity or a Threat for the Protection of Human Rights?

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Abstract:

Purpose: Technologies based on artificial intelligence (AI) are becoming one of the most desirable technological processes in many spheres of human activity. AI's unavoidable (or even inseparable) relationship with handling problems of everyday life gives rise to the need to consider its impact on the respect for and protection of human rights. The aim of this study is to point out the interrelation or lack thereof between the increasing use of AI and the degree of protection of human rights. This will allow conclusions on the need to establish normative rules that determine the principles of operation of AI-based algorithms in the form of positive law or soft law.

Design/Methodology/Approach: We will take a closer look in this article at AI's impact on certain human rights identified in these acts. I will first present implications of AI application in these areas of human functioning, which may be related to the respect for human rights and then I will assess the impact of AI on the protection of human rights or on their violation. This analysis will allow pinpointing whether there is an urgent need to adopt AI-related normative regulations.

Findings: The research has proven that it is impossible to specify unequivocally AI's impact (as a general term) on human rights. Specific AI-based systems may both protect and violate human rights. The multitude of examples of violations of human rights and the fact that AI is only in the beginning phase of development, forces the taking of necessary measures to regulate the ways of creating and using AI.

Practical Implications: The research has demonstrated that a legal framework for the creation and use of AI must be formulated at the transnational level. Establishing such a uniform and coherent framework will result in increased social trust for AI-based systems if rules for creating it ethically are universal.

Originality/Value: The research contributes to reducing the legal lacunae in the context of AI regulation.

JEL codes: K33, K38.

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1. Introduction

Artificial intelligence (AI) has been sparking intense emotions in the scholarly world for years now. It was first an item of interest in science, but as it develops, it gains increasing popularity in social research, including law studies. AI-related legal measures in fields such as private law and especially copyright are being heatedly debated today. Also, it is gradually becoming a subject of tactics adopted under international law and European law. In April 2021, the European Commission presented the first ever legal framework for artificial intelligence (European Commission, 2021). Thus, it attempted to regulate AI in a transnational approach.

The adoption of norms related to the creation of algorithms and the use of AI will ensure the development of this technology in a secure and trustworthy manner with respect to fundamental rights of EU citizens (Vestager, 2021). It is particularly important in the face of the increasingly popular replacement of the human factor with machines in the performance of repetitive actions.

Automation today is becoming one of the most desirable technological processes in many spheres of human functioning. The automation processes will be followed by AI-employing technologies. Their dynamic development and employment in newer and newer areas of everyday life advocate the significance of undertaking a discussion on their impact on respecting and protecting human rights, especially in the question of the use of AI in exercising broadly understood public authority in terms of social, political, civil and economic aspects.

It is not difficult to imagine a situation where a machine-learning algorithm, without human supervision, will not respect human rights and freedoms, but it will actually violate them by taking decisions that are more praxeologically justified, but devoid of a deeper axiological context.

Ensuring an adequate framework for the protection against AI that fails to respect (that fails to see the need to respect) human rights is in the interest of all states. The creation of transnational regulations would contribute to ensuring cohesion of legislative solutions and would enhance trust in the use of AI-based measures, not to mention the impact of the law (given law or soft law) on the very process of designing and creating AI.

The main aim of this study is to point out the interrelation or lack thereof between the increasing use AI and the degree of protection of human rights. This correlation may be accommodated under to mutually exclusive hypotheses:

- 1) AI as a threat to human rights protection,
- 2) AI as a tool of human rights protection.

Two different angles on the subject matter of the creation and use of AI through the prism of protection of human rights will subsequently allow conclusions on the need to establish normative standards that outline the principles of operation of AI-based algorithms.

2. Research Methodology

In order to maintain methodological coherence of this paper, the concept of artificial intelligence needs to be defined first and the area of its impact on human life must be also identified. It directly correlates with respect for human rights in these areas. It needs to be remembered that AI does not advance in a vacuum, but its development is strictly related to the development of certain areas of community life.

Given the above, we must first assess the impact of the use of AI in different fields of life on certain human rights, while taking into account the scope of its introduction and also control mechanisms. However, it is impossible to discuss all implications of the use of different types of AI on human rights. Therefore, such AI-based systems will be selected that have already been diagnosed today or that are highly likely to have a real impact on a given human right.

Then, the paper will specify how AI influences human rights in a given field and what (short- and long-term) effects it will have. Specification of these circumstances will in consequence allow an assessment of whether the imposed normative regulations are necessary for appropriate protection of human rights. For the sake of clarity and order of the discussion, I will analyse a correlation of selected human rights with examples of AI-based measures. The catalogue of human rights discussed in this paper will include mostly those rights, the restriction of which impacts the freedom of man.

For the needs of this paper, human rights shall be understood as rights that have been catalogued under multilateral international agreements, that is most of all in the International Covenant on Civil and Political Rights (ICCPR) and in the International Covenant on Economic, Social and Cultural Rights (ICESCR) and in the Universal Declaration of Human Rights (UDHR), which is not in fact an international agreement, but cannot be overlooked in the context of its significance for the development of human rights law.

The research was based on the dogmatic and legal method, relying primarily on the analysis of legal acts and doctrine. The AI market was also analysed and the solutions functioning on it were selected, which have a positive or negative impact on human rights.

3. Results

3.1 What is AI?

There is no single definition of AI in the many scholarly disciplines that deal with these issues. According to one of the earliest definitions, AI is the science and engineering of making intelligent machines, especially intelligent computer programs (McCarthy, 1955). AI was also considered a field that studies the synthesis and analysis of computational “agents” that act intelligently, thus agents that are appropriate for their circumstances and goals, that are flexible to changing environments and changing goals and that learn from experience and make choices. “An agent”, in turn, was understood as something or someone that acts in a given environment and that does something (Poole and Mackworth, 2017).

AI has also been seen as processing by mimicking or simulation of the cerebral, nervous or cognitive processes (Grewal, 2014) or as a branch of Computer Science concerned with the study and creation of computer systems that exhibit some form of intelligence and that can learn new concepts and tasks, and also that can understand a language and perform feats that are attributed to human intelligence (Patterson, 2002).

As we may see then, the definition of AI is not unambiguous. It may be understood as a mechanical device, as mimicking human intelligence, as a computer system or as a branch of computer science. The difficulty in defining artificial intelligence lies in the fact that it has been of interest to scholars for a relatively short time while the development of AI-related mechanisms is dynamic.

First attempts to define it were taken in the 1950s where it was merely a concept and an idea towards which the development of the IT system was intended to head. As computer science progressed, this concept changed which caused changes in the perception of AI itself and thus, of its definition. It needs to be noticed that close to 70 years after J. McCarthy first used the term AI, we still do not have a systematised definition that determines what is and what it not AI. Therefore, it is still a developing issue.

It also seems that moving the boundary of the possibility of digital development makes the definition of AI a task for the future. The pace of AI’s development is mostly impacted by the fact that over the last 10 years there has been great progress in accessibility to powerful computing platforms while the amount of data published through the Internet and data is a basis for computations and simulations has also increased greatly. It is a situation particularly unfavourable from the point of view of having to establish a legal framework for AI. It is difficult to regulate something that is still incomplete in the IT industry and that undergoes constant changes, even in short intervals.

However, one may assume, following the European Commission, that AI involves intelligent behaviour by analysing environment and takes actions – with some degree of autonomy – to achieve specific goals (High-Level Expert Group on Artificial Intelligence, 2019). Attempts to define AI must also include identification of its types, which is not without significance for the subject matter in question. It is commonly assumed that there are two (or three as some say) types of artificial intelligence.

1. Narrow AI (also known as Weak AI) is intended to perform a single task given to it and cannot do other tasks to which it was not designed. This type of AI is now being created and used most often. It is especially useful in replacing humans in repetitive actions which it is able to perform more quickly and more precisely.
2. Strong AI (also known as Artificial General Intelligence) - AI able to perform complex tasks that require the ability to reason and understand a broader context. This type of AI, by default, is intended to mimic human brain in the performance of a variety of tasks in changing circumstances (Ng and Leung, 2020).
3. Representatives of various fields of science recognize a third type of AI, Artificial Superintelligence. This AI “has exponentially surpassed the intelligence level of a human by several orders of magnitude” (Pohl, 2015).

In his light, it is particularly noticeable that the more self-reliant AI is in taking autonomous decisions, the more difficult it is to predict the consequences of such decisions. This, in turn, leads to a more philosophical problem not addressed in this paper, that is the problem of adoption of appropriate standards to verify a decision made by AI.

Will AI’s decision deemed as flawed by a human be flawed only because AI did not rely on values revered in the culture of the assessor or perhaps only because the premises (motivation) to take such a decision go beyond human perceptive capabilities?

3.2 AI’s Presence in a Man’s Everyday Life

AI increasingly steps into the life of an average man. Its presence in human life today is unavoidable. It is being used in almost all areas of community, economic and private life. To prove it, we may use the following examples of AI’s presence:

1. in Internet search engines—on the basis of data fed to them, on-line search engines learn to yield accurate results;
2. in on-line shopping and advertising—the most common use of AI is to personalize ads during on-line shopping thanks to the analysis of previous purchases and other acts performed on the Internet;
3. in mobile phones—digital assistants or supplying personalised content;
4. in cars—self-driving cars and automatic features in regular cars or in navigation systems;
5. smart homes—home appliances adapted to the needs of residents that learn their habits;
6. health care—in 2018, researchers used a deep learning network for brain haemorrhage detection from computer tomography scan (Grewal *et al.*, 2018); an artificial intelligence programme was also developed to answer emergency phone calls intended to detect a cardiac arrest faster and more effectively during a call than an emergency medical dispatcher;
7. industrial production—boosted performance of production processes through automation and optimisation;
8. agriculture and food production—monitoring and regulation of crops' temperature, optimisation of yields, monitoring of animals' fodder consumption.

3.3 AI and Human Rights

The use of AI in newer and newer aspects of life certainly greatly facilitates human functioning. However, relying on AI's "verdicts" in aspects of cultural, political, economic, personal or social life requires an examination of how AI will affect fundamental human rights. Depending on the consequences of AI's activity in the light of guarantees and respect for human rights, we will be able to judge them as positive or negative. A positive assessment of AI's impact on the realm of human rights will happen where benefits from its introduction prevail, while human rights are not violated at the same time. In contrast, AI will have an adverse impact on human rights where the introduction of AI-based solutions will lead to violations of human rights.

In this article we will take a closer look at AI's impact on certain human rights identified in acts referred to therein. I will first present implications of AI application in these areas of human functioning which may be related to the respect for human rights and then I will assess the impact of AI on the protection of human rights or on their violation.

3.4 AI and the Principle of Respect for Human Dignity

The principle of respecting human dignity is one of the fundamental human rights, always named first and providing a basis for respecting all other human rights. In the UDHR, dignity is mentioned in Article 1 and in the ICCPR already in the preamble,

which emphasizes its importance. This principle is an integral part of the understanding of human status. It is inalienable, cannot be renounced, and is enjoyed by a person throughout his or her life. The principle of respect for human dignity is related to, i.a., the right to life. The argument on respecting human dignity often surfaces in discussions of health care (Lothian and Philip, 2001). The development of health care is aided by AI-based systems. AI solutions for the health care system may be classified under two main categories:

1. AI which has taken a physical dimension in the form of devices, mechanisms or robots;
2. AI as programmes or algorithms, thus without an external physical carrier.

AI-based solutions first and foremost include robots that aid therapy and assist in tasks and also exoskeletons of upper and lower limbs that aid rehabilitation.

Health care increasingly uses AI-based programmes which support medical consultations (e.g., consultations based on the patient's medical history and universally available medical knowledge), the performance of repetitive tasks (such as X-rays, CT scans, analysis and description of an examination), diagnosis (including treatment planning), or pharmacology (related to drug management and creation) (Zardiashvili and Fosch-Villaronga, 2020). In this approach, AI systems increase the life comfort of persons who due to their conditions experience great impediments in everyday functioning. In particular, it has a positive impact on dignified functioning of persons with disabilities or the elderly. AI allows such persons to function in a way impossible or very difficult before as it required full engagement of another person.

Therefore, AI has contributed to independence, improves the comfort of life and allows persons concerned to do things impossible until earlier. Therefore, it has direct implications mostly on the dignity of socially excluded persons. In this context, AI will also, inevitably, strengthen the social inclusion procedure of such persons.

However, it must be noted that the use of such facilitations in medical care involves the processing of immense amounts of data, including data that may be deemed sensitive. This is mainly information about one's health and also information about one's real-time location (used by e.g. assistants of blind persons) or eating habits. To improve the system, some of this data may be stored in a cloud (Fosch-Villaronga and Millard, 2019).

Moving on to the assessment of the application of AI in the context of the protection of human dignity as a human right, we must first note that it has a positive influence on the human right in the form of the obligation to respect the human dignity. Thanks to its use, persons that have difficulty to function normally may live at an adequate level while their dignity is being maintained. In this aspect of AI's

application, we may agree with the hypothesis presented at the beginning saying that AI is one of the tools of protection of human rights.

Nevertheless, looking closer at all aspects of application of AI in health care, we must pay special attention to the threats related to the processing and—in whole or in part—the storage of data in a cloud. These are mainly threats related to unauthorised use of this data or data theft by third persons and third parties. Such situations will pose a risk to the protection of other human rights that stem from human dignity, such as the right to privacy and to having one's data protected.

3.5 AI vis-a-vis Non-Discrimination and the Principle of Equality before the Law

Non-discrimination is one of those rights on which the human rights law has grown. Non-discrimination will mean the prevention of any action which denies to individuals or groups of people the equality of treatment which they may wish. The Sub-commission on the Prevention of Discrimination and Protection of Human Rights, when creating the Universal Declaration of Human Rights, claimed that only those actions which are based upon 'unwanted,' 'unreasonable' or 'unjustified' determinants may be treated as discrimination. Where differential treatment is justified or where it is exercised in the interest of the individual treated differently, it is not a manifestation of discrimination. Therefore, discriminatory actions have only negative implications (Weiwei, 2004).

Application of AI-based solutions means minimising the human factor that impacts the final decision. Information and decisions submitted by AI are, therefore, a pure analysis of the data presented, but it is an analysis based on certain structures and solutions introduced to the given AI already at the design stage. Thus, such an analysis is devoid of expressions of empathy or emotions. Therefore, if AI is created on the basis of human discriminatory decisions, it will make discriminatory decisions.

The most profound example of AI that strikes at non-discrimination is the courts' use of the COMPAS system (Correctional Offender Management Profiling for Alternative Sanctions) to support the issuance of judgments by an assessment of inclinations to re-offend. This system, used in some parts of the United States, is intended to support the judges' decisions in directing defendants for probation. This system predicts the risk of re-offending in a 10-point scale (where 1 means the lowest risk and 10 the highest). The risk scale is assessed on the basis of 137 dedicated questions which are answered by the defendant or which are drawn from criminal records.

These are questions about one's family, social environment or mechanisms of behaviour in specific stations. These questions do not ask about one's race or ethnic background. Despite this, research conducted by reporters of ProPublica - J. Angwin

et al. (2016) shows that on the one hand black defendants were falsely flagged as future recidivists twice as often as white defendants, and on the other, white defendants were mislabelled as low risk of future re-offending twice as often as black defendants (Angwin *et al.*, 2016).

AI implications in the context of non-discrimination may apply not only to the judiciary, but also to other fields, such as employee or student recruitment. A 1980s recruitment to a medical school is a good example here. The school used an algorithm, which, by learning from recruitment from previous years (done by the university employees), began to discriminate against women and migrants (Zuiderveen Borgesius, 2020). Violations of non-discrimination may also occur in the process of granting credit when an AI analyzing customer data violates personal rights by refusing to grant credit (Slotwinski, 2017).

AI's impact on non-discrimination and the principle of equality before the law as human rights must be seen as adverse, as a technology that potentially violates the law. AI operates on the basis of a given model, without the "human" factor in decision-making, thus without empathy, emotions or understanding of extended circumstances of the case.

Moreover, if an algorithm is flawed and operates on data that is directly or indirectly a basis to declare discrimination, AI based on it will copy this model and thus reinforce the current discrimination models. However, AI may be used to protect non-discrimination by creating such a system that will find and mitigate inequalities in treatment.

3.6 AI and the Right to Privacy

The amount of data received every day by all intelligent technologies is colossal. Every day, an average person provides information about the time they get out of bed, leave their house for work, the route they take to get there or the transport they use, how many steps they make, what music they listen to, often also about what they eat—all of this almost not using their phone. The omnipresence of technologies making life of an average man easier means that often even unintentionally, we give out thousands of pieces of information about us, our habits, routine and everyday life. Data protection is nowadays a source of most frequent discussions on the use of AI. Both in local legal orders and at the international level, measures have already been taken to protect personal data.

However, it needs to be remembered that systems based on artificial intelligence will only be smart if they have sufficient data to learn from. Examples of such actions are smart chatbots which thanks to the analysis of discussions carried out (that is data provided) are able to "understand" what the customer is asking about and to give them the answer they seek.

The impact of AI on the right to privacy is difficult to assess. On the one hand, AI systems' collection of data will violate the law, which is why it needs to be adequately supervised. We must also remember that such data may be collected illegally and then used unlawfully. On the other hand, the data collected may facilitate functioning in various fields and may improve the AI itself, which will be able to learn from this data.

3.7 AI and Freedom of Expression and the Right to Express one's Opinion

Freedom of expression is one of the fundamental human rights due to its key importance for human dignity, development or self-attainment, but it is also a determinant of democracy and good governance. This is why the right to freedom of expression features in all international and regional human rights-related treaties. This right includes the freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of one's choice (Article 19 ICCPR).

At the moment, thanks to the possibilities offered by the Internet, there are many platforms on which one may express their opinion publically. This is why the term "artificial intelligence in content moderation" may be encountered more and more often. However, it is a very broad concept which also concerns automated processes for filtering content published on the Internet. It may involve simple keyword filtering or a more complex process of machine learning. Content moderation involves many challenges associated with ambiguity of content, the change of meaning of the content when context is considered and bias in the moderator (Cambridge Consultants, 2019). AI moderation must face up to the first two challenges as it lacks the biased "human element".

AI's impact on the freedom of expression gives rise to positive and adverse consequences alike. On the one hand, all platforms today that guarantee freedom of expression are based on AI to an unprecedented, global extent. This provides an opportunity to reach to countless numbers of people. Naturally, unrestricted access to freedom to express one's opinion means that our post may be left unnoticed among the plentiful content available of the Internet.

AI brings assistance in this regard too by pre-filtering content and eliminating messages that e.g. call for hatred or terrorist attacks or spread false information. On the other hand, moderating content by means of AI may violate the freedom of expression by censoring harmless posts.

4. Conclusion

This analysis shows that despite obvious benefits, AI's impact on human rights mostly brings great dangers. The two hypotheses put forward in the introduction, as it turns out, are only ostensibly contrary. It is because it is impossible to determine in

general that AI-based solutions will protect or violate human rights or that they will have a positive or adverse impact on human rights. There are such AI-based solutions which, by protecting one right, will violate another (e.g., AI-based solutions that help blind persons to move from one place to another provide protection of human rights on the one hand by ensuring dignity, and on the other - impart private and personal data that, if not adequately secured, may be used in the future).

There are also such human rights on which one form of AI will have a positive impact and another form will violate them. Therefore, it cannot be generally determined whether AI, as a general concept, is an opportunity or a threat to the protection of human rights. This impact will depend on a specific AI-based system (a specific programme, algorithm, system or machine) and its relation with a specific human right. Vulnerability to threats brought by AI results from a number of circumstances:

1. normative—lack of relevant legal regulations that force ethical design of AI-based systems;
2. technical—flawed AI design or insufficient security measures;
3. social—society's insufficient information, lack of awareness about data sharing;
4. economic—lack of financial resources necessary to mitigate adverse effects of AI use (Rodrigues 2020).

It must be remembered that given today's level of AI's development, these violations made by artificial intelligence are not and will not be attributed to the AI itself, but to its creators and users as a violation of personal interests, abuse of a dominant position or illegal collection and use of personal data. However, regardless of which entity is deemed as the perpetrator, the violations described are still breaches of human rights.

Since the assessment of whether AI has an impact on human rights is casuistic, it is necessary to consider the regulation of AI creation and use. Such regulations have already been put in place in legal orders of many countries, but it is worth considering the regulation of AI-related questions at an international level. Many arguments speak for the settlement of the AI subject matter in a transnational dimension.

First of all, human rights are a universal value, shared by the entire international community, which is expressed in multilateral international agreements that make up a universal system of protection of human rights. Second of all, globalization processes mean that AI-based solutions are being created and used in various countries. The ease of transfer of goods and services means that AI created in one country can be easily used in another. A transnational regulation will allow the formulation of uniform standards of ethical creation and use of AI. Thirdly, these

uniform standards enhance public trust in AI-employing solutions if created ethically.

The basic goal of regulation of AI is most of all to boost trust in the employment of measures based on it. It will only be possible if standards and rules of creation and use of AI are drafted so that it does not violate human rights and acts as their protection.

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