CONCEPT OF IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE FOR THE PREVENTION OF CONFLICT OF INTEREST SITUATIONS IN THE PUBLIC SECTOR

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Abstract

The purpose of the article is to obtain, learn and analyse the international experience on the basic principles of artificial intelligence (AI) implementation in the public sector. In the article, the author examines the problems and offers proposals on the legal foundations that must be provided in the concept of introducing AI for the prevention of conflict of interest situations in the public sector. To achieve the goal, the author relies not only on the findings of other authors and the experience of other countries, but presents his own research. The author's research is based on a survey of Latvian state and local government officials and employees. The author's research was conducted but not fully completed at the time of submission of the article. However, in the article, the author has summarized the interim conclusions of the study and presents them. The author believes that the topic of the article and the research presented herein will allow a better understanding of the importance of AI technology, the need to regulate it, as well as ensure the safe implementation of AI in the public sector in the future with the aim of minimizing the risks of corruption and conflicts of interest.

Keywords: artificial intelligence, concept, conflict of interests, corruption,

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Introduction

Nowadays, the field of artificial intelligence (hereinafter referred to as AI) refers to the development of Big Data analysis, computer vision systems and deep learning, as well as the creation of autonomous systems and other high technologies.

Already AI can be encountered everywhere, even in the most unexpected places. Cameras installed at workplaces provide visualization of the workplace of officials, which in turn can be analysed by AI to identify illegal behaviour or irrational use of working time. AI can detect and take action if an official sleeps at the workplace, plays games or uses the phone for solving matters not related to the performance of one's official duties. Moreover, AI can detect and record illegal activities that are incompatible with the official's duties, including recording the official's presence in conflict of interest situations.

Consequently, there is a need to legitimize AI. To do so, it is necessary to develop an AI implementation concept, one of the goals of which is to introduce a new tool in the process of identifying and responding to conflict of interest situations in the public sector using AI technologies.

Hypothesis

The author of the article plans to summarize international practice on the basic legal principles of AI implementation and operation. The author seeks answers to the question of what basic operating principles AI should work on and what basic requirements need to be foreseen during the AI implementation process. In addition, the author plans to study the main principles of the operation and use of AI in order to propose introducing them into Latvian regulatory acts that will regulate the implementation of AI in the public sector with the aim of preventing the risks of corruption and conflicts of interests.

Aim and tasks

The author's goal is to analyse the global experience in the implementation of the concept of the use of AI for the prevention of corruption and conflict of interests, to determine the legal requirements necessary to create a proper regulatory environment for the use of AI, based on the balance of interests of the society, the state, as well as officials whose actions will be controlled by AI in the future.

The aim is to carry out a research of international organizations, the international law of the European Union and the national legal norms of various countries of the world, which set out the basic principles and requirements of the implementation of AI.

The author sets the following tasks to achieve the goal:

1) study the international experience in the implementation of AI technologies, including legal acts (concepts) with which the mentioned process has been initiated;
2) to analyse the basic principles of AI operations used in the world and apply them to Latvian processes for the introduction of AI.

Research

The article studies the period covering the last 3 years using general scientific and special legal methods of cognition: methods of analysis and synthesis, method of scientific induction, method of deduction and the comparative method.

In the article, the author uses the interim results of the research conducted by surveying (a total of 51 questions) state officials and employees working in the public sector of Latvia during the period from March 6, 2023 (hereinafter - Research). Although research is still ongoing, it is already possible (as of April 6, 2023) to draw conclusions about the level of AI implementation in Latvia from a survey of 270 officials and employees (hereinafter - respondents), the respondents' knowledge of AI, as well as their wishes and requirements in the AI implementation process, etc. The author believes that the research topic chosen and the research conducted will allow a better understanding of the importance of AI technologies and will ensure their safe implementation in the society in the future.

1. The concept of artificial intelligence for the prevention of conflicts of interests

Tēzaurs.lv, a vocabulary and synonym dictionary, which was developed by the AI laboratory of the University of Latvia, provides the following definition for the word “concept”: a description or explanation of the essence of a subject, phenomenon or event based on theoretical knowledge; the germ of a theory (Tēzaurs.lv, 2023).

On the other hand, the purpose of developing a concept document is to justify the usefulness of creating a planned system by analysing the existing situation and the problem that the project is intended to eliminate, and to create a clear picture of the planned situation and the possible benefits that would result from it for all parties interested in the implementation of the project (Regional Development and Local Government Ministry of Affairs, 2010).

According to the author, the goal of the AI implementation concept for the prevention of conflict of interest situations in the public sector should be the introduction of new tools to identify and respond to conflict of interest situations in the public sector using AI technologies.

Analysing the worldwide experience, it can be concluded that the use of AI in the public sector is already taking place in several countries for various purposes (Strelčenoks, 2021). Evaluating the abovementioned experience, it is acknowledged that the concept of the development of AI technologies in the public sector should be based on the balance of the interests of society, the state (Распоряжение Правительства Российской Федерации, 2020), as well as the interests of officials whose activities will be controlled by AI.

The purpose of introducing AI for the prevention of conflict of interest situations is to stimulate the development, implementation and use of such AI technologies that will help identify conflict of interest situations in the activities of officials. The result of such activities should contribute to the strengthening of public trust in the public sector, as well as the improvement of citizens' well-being

and quality of life. Taking into account the abovementioned goal of introducing AI in the public sector, the author identifies the following tasks that should be addressed in the concept document:

1) creation of the legal basis for the introduction of AI technologies in a system controlling the officials' activities;
2) elimination of the existing legal barriers that prevent the introduction and use of AI technologies in the public sector with the requirement that the necessary rights and freedoms of the official as a person and citizen are protected on the one hand and that the interests of society and the state are satisfied on the other hand by controlling the officials' activity.

However, the development of AI technologies creates serious challenges for the state system itself, because AI technologies have a huge autonomy of action when addressing the task of prevention of situations of conflict of interest in the public sector. Therefore, the achievement of the goal and tasks of AI implementation in the public sector should be based on basic ethical norms and principles:

1) principle of respect of fundamental rights: ensuring that the design and implementation of artificial intelligence tools and services are compatible with fundamental rights;
2) principle of non-discrimination: that is, the prevention of the development or strengthening of discrimination between individuals or groups of persons, during the application of AI technologies;
3) principle of quality and safety: use certified sources and intangible data for decisions, judgments and data processing, using models elaborated in a multidisciplinary manner in a secure technological environment;
4) the principle of transparency, impartiality and reliability: make data processing methods accessible and understandable, allow external audit;
5) principle of user control: precluding a prescriptive approach and ensuring that users are informed actors and in control of their choices (European Commission for the Efficiency of Justice, 2018).

The above mentioned basic ethical norms and principles are also supported by the respondents according to the research carried out by the author. Answering the question "Do you think it is necessary to create regulations of AI based on any special ethical principles?" 63.3% of the respondents gave a positive answer, 9% denied such a necessity and 27.7% did not know or found it difficult to answer this question.

On the other hand, out of those respondents who believed in the necessity of special basic ethical principles for the legal regulation of AI technologies, the following were considered essential: Security (75.3%), Legality (74.1%), Protection of Human Rights (61.1%), Transparency (54 .3%) and Responsibility (51.2%). Other core principles were considered important but failed to reach the 50% mark among respondents, such as Confidentiality (48.8%), Trustworthiness (45.7%), Impartiality (39.5%), Fairness (37.7%) and Manageability (30 .2%).

One of the obstacles, but not a main one, based on the author's research in the use of AI technology to control the activities of officials may be the lack of sufficient degree of public trust (as noted by 45.7% of respondents). In particular, the increase in the degree of autonomy of AI technologies, the decrease of people's control over the process of applying AI, as well as the lack of completely transparent decision-making logics in the operation of AI technologies can create public demand for legal restrictions on the use of AI technologies. In this regard, the concept document should foresee the occurrence of several such conceptual problems and risks and provide for their minimization to ensure impartial control of officials and the identification of conflicts of interest in the activities of officials:

1) the problem of determining the scope of subjects and control of the use of AI technologies;
2) the problem of self-identification of AI when interacting with a person (with controlling bodies);
3) the problem of legal delegation of AI decisions;
4) the problem of liability for harming an official using AI;
5) the problem of the legal regulation of the results of intellectual activity created using AI;

6) the use of possible outcomes for AI decision-making and in some cases the impossibility of fully explaining the decision made by AI;
7) AI algorithm transparency problem (European Commission for the Efficiency of Justice, 2018).

In order to minimise these problems, the concept should provide for requirements to create a special procedure of checks and further execution of decisions on how and in what manner the AI made the decisions in specific cases when officials were found to be in a situation of conflict of interests. In such cases, it would be desirable to ensure the active participation of specialists and experts in the development of standards to identify and respond to actions of officials in a conflict of interest situation.

Issues of liability for the damage caused by AI to the official as a result of erroneous analysis and in cases of erroneous detection of violations are significant issues regarding the use of AI technologies in the public sector in the context of monitoring activities of officials. Therefore, the concept should provide for issues of liability in the event that officials are harmed as a result of the operation of AI technologies (which have a high degree of autonomy in decision-making regarding the detection of unjustified conflicts of interest in the actions of officials). In such cases, it is necessary to determine the scope of persons who would be liable for legitimate and erroneous actions of AI, and allow compensation for material or moral (for example, reputation) damage caused to officials as a result of AI operations. The concept should guarantee an efficient and fair distribution of liability (between developer, distributor, owner, etc.) in case of such damage. Depending on the amount of damage caused to officials or public interest, the concept should provide for civil, criminal and administrative liability.

The increase in the amount of accessible data, as well as the development of the information and communication infrastructure for data access are main factors in the development of AI technologies for the implementation of control of activities of officials. In general, the current legal framework in the field of data is mainly focused on ensuring confidentiality of information and does not take into account the considerable potential of significant data sets for the creation of AI technologies that would work with the personal data of a specific official, his relatives and business partners. In light of this task of improving the accessibility and quality of data on officials, their relatives and business partners, it would be necessary to review and adapt data legislation that should ensure:

1) favourable legal conditions for access to developers' data and exchange of various types of data about officials, their relatives and business partners, including not only public data, but also data accrued and collected in the private sector;
2) special conditions (regimes) for access to data, including personal data, in order to generalize AI technologies, analyse and develop technological solutions for identifying conflicts of interests in the activities of officials, which would require expanding the practice of data disclosure in the public sector (Распоряжение Правительства Российской Федерации, 2020).

The concept should lay not only the legal foundations for the accessibility of data in the public sector for AI technologies, but also provide for the extension of data accessibility to the private sector (to the data of merchants and credit institutions) by creating the necessary legal conditions (Распоряжение Правительства Российской Федерации, 2020). Taking into account the special sensitivity of merchants and credit institutions regarding their data, in order to ensure the guarantees of personal data rights of officials, their relatives and business partners, such access should provide for increased protection of personal data. It is also recommended to consider the possibility of using data from foreign sources to identify conflicts of interest of senior management officials in cases where an activity abroad is concealed. In such cases, it is necessary to provide for the conclusion of international agreements or supplement already existing agreements.

The use of AI technologies in the public sector, along with the monitoring of activities of officials, their relatives and business partners and the identification and prevention of conflicts of interest, will potentially reduce the number of daily activities of state and local government officials, reduce costs, and increase the speed of decision-making by state and local government institutions. Such AI

technologies should preferably be introduced gradually, starting with areas of the public sector that are not related to critical decision-making. The main problems in the current regulation on the use of AI systems in the public sector are the lack of legal options for delegating any legal decisions to AI technologies, including those regarding:

1) review of applications of inhabitants;
2) provision of state and local government services;
3) performing positive actions or making positive decisions;
4) implementation of control and monitoring measures.

The above mentioned lack of legal regulations in the author's research is also confirmed by the respondents, who answered in the affirmative in 41.9% of cases to the question on whether greater monitoring and regulation of AI technologies is needed than is currently the case. 12.8% of respondents answered this question in the negative. On the other hand, 45.3% of the respondents did not know what to answer. According to the author, this may indicate that AI technologies are not widespread in the public sector or that the respondents are not aware of their existence at all. This is also indirectly confirmed by the respondents' answers that only in 7.8% of cases their institutions have developed or approved a strategy for the implementation of digital transformation or AI technology. On the other hand, 92.2% of respondents had not heard anything about such strategies or claimed that no such strategy existed in their institutions at all.
On the whole, the approval of transparent regulations is a topical issue for the public sector, i.e. the development of key standards and a mechanism to assess the compliance of AI technologies with security requirements, compliance with human rights, protecting officials, their relatives and their business partners against discrimination and selective enforcement, as well as reducing the risk of disclosure of personal information, etc.

2. Basic standards for the implementation of the concept of artificial intelligence for the prevention of conflict of interest situations

According to the author, in order that public and officials trust AI technologies in regulating conflict of interest situations, the state should provide stakeholders with clear explanations about what decisions are made in the information environment by automated AI systems, which AI systems are controlled by humans, as well as provide information about common logic elements used by these AI systems. Officials should also be informed that the personal data they provide to public and private sector entities will become part of the data set used by AI technologies (either directly or through services or through website access) so that officials can take this into account when consenting each time to data collection or leaving information about themselves.
Similar to the public announcements made while using CCTV cameras, users must be actively informed about the use of AI technologies in a clear and comprehensible way (using innovative means such as pop-up messages on the computer) that AI technologies are involved in the decision-making process regarding officials, that AI collects data about processes in which officials are involved, and AI technologies also collect comprehensive information about them (The Global Principles on Protection of Freedom of Expression and Privacy, 2017).

Transparency

Transparency is not limited to informing individual users about the presence of AI technologies in platforms and online services used by officials. The state must ensure transparency throughout the entire chain of AI operations. Effective transparency does not necessarily have to be complicated; even a simple explanation of the goals, strategies, contributions and results of AI technology can contribute to public education, development of public dialogue and public trust in AI technologies (Rieke & Bogen & Robinson, 2018). The state can achieve public trust not by explaining complex technical issues, but by trying to provide information about the goals and principles of operation of AI technologies in the simplest manner. In this regard, special attention should be paid to informing

the public and officials about the existence, purpose, structure and impact of AI systems, rather than providing information about the source codes, calibration data and the system input or output data (Rieke & Bogen & Robinson, 2018).
In order to ensure complete transparency regarding the impact of the use of AI in the information environment, it is necessary to disclose information such as information used by AI systems, the amount of information used, instances where cases confirmed by AI systems were deemed controversial in nature, as well as when decisions made by AI were successfully challenged by officials. Officials and the public must have access to data collected by AI technologies, as well as data that illustrate trends and allow understanding of the logic of decisions made regarding the control of officials to identify conflict of interest situations. Public and private sector entities that use AI systems should also disclose information about AI system operations, its capabilities, as well as about safeguards in the event that there are problems with the operation of AI technologies or erroneous conclusions are drawn based on the performance of AI technologies (Amnesty International and Access Now, 2018).

Impact on Human rights
Combating the spread of discrimination in AI systems is a vital national task. The inability to solve the problem of eliminating discriminatory elements and negative effects makes AI technologies not only ineffective, but also dangerous (Iason, 2018).
The author provides an example of how erroneous algorithmic calculations of AI technologies resulted in a serious and fatal decision for an individual. In the United States, a program COMPAS with elements of artificial intelligence was introduced, which was used in the courts of many states to decide whether to recommend prison terms or bail for people awaiting trial. The program was well received and was also used in parole cases. However, when the portal Propublica.org decoded the black box of the COMPAS system, the following was revealed. The system was found to pre-emptively reduce the chances of bail and parole for Hispanics without legal status in the United States, as well as for African-Americans with incomes above the poverty line but below the middle class level. While the first conclusion was intuitive, the second led to general confusion, and the system was suspended after a public outcry (Russian Journal of Criminology, 2018).
Therefore, according to the author, in order to ensure maximum protection of human rights and transparency of AI systems, the state should apply measures to ensure access to such AI systems for analysis and control at all stages of the life cycle from concept development to implementation. One way to ensure transparency is to prepare impact assessments of AI systems in terms of their human rights readiness, and this work should be carried out before the initiation of AI technology procurement activities, before its development and implementation phases, and should include self-assessment as well as external assessment (Reisman, 2018).
In the public sector, AI technology purchases from private service providers should be made after consultation with the public to obtain opinions and proposals on the development and implementation of the AI system. The state must constantly hold constructive consultations with representatives of civil society and human rights groups (Reisman, 2018). The author believes that officials should also be consulted, since AI technologies are aimed at controlling such category of persons in order to prevent and identify conflicts of interest in their activities. These consultations should take place before the design, purchase and implementation of the AI system.

Audit inspections
External audit of AI systems is a strong guarantee of the accuracy, independence and transparency of the assessment. Regular audits of independent procurement activities should therefore complement the preparation of initial human rights impact assessments as an important mechanism for ensuring transparency and accountability of the AI system (Council of Europe, 2017).
Conducting AI technology audits will protect the interests of the public, the interests of officials and at the same time minimize the risk of confidential information getting into the public space (Pasquale, 2015). Access to AI systems can be provided to a specific state institution that would be competent

to engage in industry regulation and supervision (Council of Europe, 2017). 85.3% of respondents believe that it could be the State Data Inspectorate or the State Security Service (75%).
Various types of problems may arise with the use of an external control mechanism, but the state should do its best to create the conditions for audits of AI systems. In order to carry out effective audit for the evaluation of the AI system, the state should more actively adopt policy decisions and the corresponding legal framework, which will force companies to develop an already auditable AI code, guarantee the preservation of the audit history, thus also ensuring that the people affected by AI technology have access to more information and its operation is transparent and will not give any reason for doubt. 61.8% of respondents also agree with the above mentioned statement of the author, believing that the parliament or the government should generally be more actively involved in the work on the legal regulation of AI technologies. Most of them (i.e. 56.3%) believe that the parliament or the government should initiate discussions between institutions about the need for legal regulation of AI, as well as initiate discussions with society about legal regulation of AI - 54.4%. In addition, a significant number of respondents - 55% believe that the parliament or the government should come up with initiatives and offer national proposals for a common European Union AI legal framework. A minority of respondents (8.8%) believe that it is necessary to wait for the creation of AI technologies and only then start developing the foundations of the legal framework for AI.

Information and consent

In the context of the majority in the study, who believe that the parliament and the government should initiate discussions with the public about the legal regulation of MI (54.4%), the author believes that the state should ensure that the public and officials are fully informed about decision-making algorithms used in different types of platforms, websites, etc. Disclosing information about AI technology operations, the algorithm and aggregated data upon the official's request, on the basis of which a conclusion was made, for example, about the official being in a conflict of interest situation should also be considered. It would be useful for the government to make such requirement mandatory. Natural entities (especially relatives and business partners of the official) should also have the right to know whether the AI collects personal data and whether this data will be included in a data set that will later be used in AI technology operations to draw conclusions, for example, on whether or not the official is in a conflict of interest situation. Moreover, the mentioned natural entities must be informed about the conditions of use, storage and deletion of this data (UNESCO, 2020).

Legal remedies

The adverse impacts of AI systems on human rights must be remediable and remedied by the companies or institutions responsible. A mandatory condition for the creation of an effective legal protection system is to inform officials, as well as their relatives and business partners that they have been subject to AI technology solutions. Furthermore, the responsible companies or a competent institution must ensure that the person will be provided with legal remedies, i.e. the person must be offered the opportunity to ensure that the conclusions reached by the AI system are properly verified and held accountable in the event of errors. The author also believes that it is also necessary to publish data on the number of cases of recourse to legal remedies related to decisions made using AI technologies (UNESCO, 2020).

Conclusions and Proposals

1. The development and use of AI technologies must be carried out in accordance with the basic principles of ethics: respect for people, autonomy of AI, prevention of offenses and explainability of AI processes.
2. The development, implementation and use of AI technologies must meet the following requirements: human control and supervision of AI technologies, technical reliability and security, privacy, transparency, diversity, non-discrimination, fairness and accountability.

3. The use of AI technologies will make it possible to manage huge amounts of data by controlling and monitoring the activities of officials, their relatives and business partners, thus minimizing the risks of corruption and the possibility of officials being in a conflict of interest situation.
4. It is necessary to provide for the possibility for AI technologies to use the personal information of officials, their relatives and business partners, which are at the disposal of state and local government institutions.
5. Access to information from sources in the private sector should be provided to AI technologies through regulatory acts, such as access to large volumes of confidential information of commercial and credit institutions, social networks, video and audio recording devices, etc.
6. The risk of bias by AI technologies must be foreseen, therefore the state must ensure mandatory state monitoring and control of AI systems, its detailed documentation, allowing the state regulator and citizens to understand how the AI operates, explaining the decisions made, actions taken and conclusions drawn.

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