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AUTOMATING THE JUDICIAL SYSTEM:
EMBRACING ARTIFICIAL INTELLIGENCE
FOR TRANSPARENCY AND EFFICIENCY

ABSTRACT. This article describes the mechanism for using artificial intelligence (AI) in legislative, executive and judicial activities, defines the goals, objectives and functions of AI, as well as the positive and negative aspects of its implementation in the state management system. The author argues that the use of AI in the legal field can help increase transparency, fairness and efficiency of the judicial process, and can also contribute to the development of new human rights, such as the predictability of the law and the right to peace of mind. The article also highlights the risks associated with the use of AI in the legal field, such as the possibility of dehumanizing the justice system, the need to establish ethical, legal and technological principles for the implementation of AI in the judicial process.


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1. Introduction

The age of information technology has caused society’s focus to shift from the physical world to the virtual one. The virtual world has enabled transparency and accessibility of information, thus exposing corrupt activities, declarative legislation, unfair justice, human rights violations, discrimination, and other issues. However, while society can monitor the online actions of government bodies, there is little influence over them. It is futile to discuss these problems without the government’s involvement, as they often only react when the situation becomes explosive. Therefore, society requires a new social order that puts the interests of the people first. This order can be achieved through modernizing the concept of collective decision-making to allow society to control the behavior of those in power. I propose using transparency, information technology, artificial intelligence, and cyberspace to achieve true democracy with liberal values. I believe that by applying AI, we can not only renew the activities of the government branches but also the entire political system. Through AI, people can identify and solve problems, ultimately achieving timely legal resolutions. However, AI poses both prosperity and threats to civilization, so we must take precautions. I recommend adopting an alternative normative act at the UN resolution level to establish humanity’s supremacy over AI.

2. AI and the new technological order of humanity

The state apparatus has evolved over thousands of years, with changes in class-based social and economic formations such as slavery and feudalism, and the overcoming of racial, religious, and other prejudices.\(^1\) The change in government structure occurred due to the inefficiency of legislative, executive, and judicial powers during those times. Examples of this are modern government models that have emerged through various revolutions and civil wars, where the previous branches of power were unable to fulfill their obligations due to natural circumstances and social injustice.

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Today, we see that the exceptional rights and powers granted by the people to their representatives, and most importantly protected by law, have created a caste of ‘untouchables’ throughout history. Elected officials have become mired in the quagmire of lobbying for foreign interests, corruption, and lies, which are often exposed in the media and social networks. Political parties and governments openly ignore their own statutes and laws, fixating on strengthening their own power, disputing government positions and distributing goods, forgetting that they were elected to represent the interests of voters and social justice. With the uncontrolled cyberspace, it has become much more difficult for them to hide or ignore social problems, but they still try to reduce the reaction of social networks to meaningless discussions of the problem. State structures independently approve plans and make decisions within their own approved reporting, without taking into account public opinion. Despite the acknowledged facts and the declared significance of IT, the government apparatus is not interested in the widespread implementation of AI, full digitalization, and automation of the legislative, executive, and judicial system, citing insufficient data and the unexplored nature of the phenomenon, caution in its application, population and technology readiness, and a lack of specialists. The saddest part is that society cannot resist them or change the political system because elected officials will never accept conditions that undermine their rights and privileges.²

3. **The theory of the virtual parliament, or the theory of the ‘falling walls’**

The technological revolution and the advent of AI in its ambiguous and transcendent sense is truly a call for awareness for all nations to take control and oversight over the activities of all branches of government. Humanity stands on the threshold of a new socio-economic formation – an information technology social order where the population is technically capable of influencing democratic governance.³ All the tools for its implementation are available: (i) the development and approval of fundamental

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human rights and freedoms, (ii) a high level of education, (iii) increased public interest in the legislative process and protection of their rights, (iv) 80% of the population in developed countries connected to the Internet,\(^4\) (v) biometric data of most of the population digitized, (vi) social networks and platforms, (vii) practical technological advances in AI, (viii) the ability of artificial intelligence to analyze big data and provide practical solutions, (ix) constant improvement of information technology and self-learning AI, (x) upgrading of the technological framework, and many more.

Before the era of information technology, the method of collective decision-making at the state level typically involved the understanding of selecting representatives from the people to represent and protect the interests of voters in the legislative, executive, and judicial branches.\(^5\) This rule arose because of the physical impossibility of the entire population being present within the walls of the government apparatus. The axiom is that cyberspace has erased this limitation, eliminated the concept of ‘walls of buildings’.

Having all the above-mentioned tools, modern society has a real chance to develop and implement ethical, legal, and technological principles of the ‘virtual’ parliament and other state structures, ie, to implement the mechanism of ‘collective decision-making’ literally without delegating their exclusive rights and powers. Biometric data or special IDs will serve as confirmation of physical presence in the virtual parliament. On ‘smart’ digital legislative platforms of the virtual parliament, every citizen will have the opportunity to exercise ‘exclusive’ rights and powers of elected officials, such as: (i) participate in discussions and approve laws in accordance with established rules, (ii) participate in the work of committees and commissions of the parliament, (iii) monitor and participate in the execution of parliament’s instructions, (iv) participate in parliamentary hearings, (v) propose legislative initiatives, (vi) submit parliamentary requests, (vii) address questions to members of the government, (viii) appeal to relevant officials to take measures to immediately prevent violations of citizens’ rights, and more.


The exclusion of elected officials from the people-deputy-law chain will allow for: (i) achieving transparency of the activities of the entire government apparatus, (ii) direct and free expression of the will of citizens, (iii) directly demanding accountability from decision-makers in the executive branch, (iv) implementing on a practical level the principles and requirements of democratic governance, as declared by the United Nations, (v) achieving social justice, (vi) excluding hidden lobbying of interests of certain social groups and the executive branch, (vii) eradicating corruption, (viii) excluding the adoption of anti-social decisions, (ix) reducing state expenditures on maintaining the deputy corps, and more. A virtual legislative platform will enable the adoption of transparent public legal decisions based on principles of social justice and equality, freedom of speech, the right to vote, the right to represent one’s own interests, protection of violated constitutional rights, and more. It will enable the modern society to achieve its goal of building a system of relationships based on democratic and liberal values. Naturally, this goal can only be achieved through ensuring the appropriate transparency of the government mechanism, social influence, and control. It will indeed give modern society all the powers granted to parliamentarians.

The virtual parliament will usher in a new era for humanity – the direct and immediate application of the concepts of ‘democracy’ and ‘democratic principles’ as defined by the foundational documents of the United Nations.

Democracy is a universal value, based on the free expression of the people, who determine their political, economic, social, and cultural systems, and on their active participation in decision-making on all aspects of their lives. People must have the right to vote on decisions that affect their lives, and the right to demand accountability from decision-makers based on inclusive and fair rules and institutions that regulate social relations.

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The algorithm for launching and effectively operating the virtual parliament will include: (i) the unconditional application of the principle of the inviolability of human rights and freedoms established by universally recognized international instruments in national legislation, (ii) the definition and establishment of imperative, universally applicable, spatial, and technical frameworks for AI at the level of UN resolutions, (iii) the creation of technical and legal foundations for a digital legislative platform, (iv) the development of mobile applications for (a) the “virtual” parliament, (b) an online law drafting simulator, (c) an online social survey, (v) the development of a technical system for the use of biometric data in the discussion and voting procedure, (vi) the development of etiquette for public discussion and publication of opinions, (vii) active legal education of the population.

The proposed theory may seem like a fantasy, but the potential of AI should not be underestimated. The achievements and technological developments of AI in various fields such as social and economic, law enforcement, military, and others can be endlessly described, as well as plans for the development of AI areas until 2030. Many existing AI developments can be used collectively in virtual legislation: (i) moderators and controllers of ethical and technical norms on virtual platforms, (ii) search, analysis, and comparison of normative acts both vertically and horizontally, (iii) analyzing big data and providing reasonable practical recommendations for improving legislative and judicial bases, (iv) analyzing and summarizing scientific research, social network comments, and digital platforms on legal issues based on data processing in different languages and speech recognition, (v) an online problem-solving simulator, (vi) an organizer of online voting procedures using retina recognition or fingerprinting, (vii) informing people about upcoming votes, (viii) machine vision of the norm-making process, (ix) identifying unlawful actions (cybersecurity), (x) percent financial control of the state budget, (xi) law enforcement control.

The final theory of ‘falling walls’ envisions the emergence of a new information and social structure based on information technologies and the citizen’s right to participate directly in lawmaking.

The transparency theory of executive power, aided by IT, will practically implement the principle of transparency and shed light on many pressing issues in
government administration. Online tracking and AI analysis of the activities of all branches of government will enable society to give them an objective assessment and react in a timely manner. Conducting virtual online nationwide voting to select representatives of the executive and local self-government bodies, using biometric data and AI, will eliminate various dirty tactics in the struggle for power. Elected representatives will always know that they are under the watchful eye of society and AI, on whose evaluation not only the next elections but also their early removal from office directly depend. A virtual platform for monitoring their activities using AI will allow for online tracking of the entire budget execution and government program process, from legislative approval to analysis of the effects achieved upon its adoption.

The AI will provide society with a detailed financial analysis of the government budget, including (i) the entire chain of recipients of funds, (ii) ‘smart’ monitoring of each stage of expenditure for legality, transparency, and efficiency, (iii) the final effectiveness of the invested funds, (iv) options for optimizing government spending, and more. All of this will allow for the timely detection and prevention of corrupt schemes or inefficient methods used by executive authorities in budget execution. The constant online monitoring of the activities of the government apparatus by AI will shed light on the daily routine of any employee, from the president to the janitor, that is paid from the national budget. Society has the right to know what a person receiving public funds is doing during working hours. Now, an employee’s work will be evaluated not only by their superiors but also by society. Essentially, society will be informed (i) about the tasks for which the employee is paid, (ii) whether they are fulfilling their responsibilities, (iii) their necessity, effectiveness, creativity, and timeliness, (iv) whether their salary corresponds to their lifestyle, and more. AI will allow for the tracking,
modernization, and control of the activities of federal and municipal services in the redistribution of resources based on the priority needs of the population. The creation of virtual government digital platforms for monitoring will erase the boundaries of information vacuums, temporal and territorial spaces. They will give people the opportunity to unite around social interests, discuss state, legal, and local problems, collectively propose solutions, and AI, in the form of various online simulators, will analyze and summarize them for public approval. The finale of the Theory of Transparency of Executive Power will be the adoption of the Code of Control of Executive Power, the goal of which is to provide legal frameworks for transparent activities of executive authorities and local self-government based on information technologies and citizen rights to participate directly in state governance.

The Theory of Transparency in the Judicial System will be catalyzed by the automation of the justice system and the use of AI, which will allow the principle of transparency, free access to justice, reduction of time and costs of legal proceedings, and support for the case until its logical conclusion to be implemented in practice. The algorithm of actions for launching and efficient functioning of the justice system will be the development of software (i) for online applications and (ii) ‘judge simulator’, the task of which is to check the completeness and reliability of the claim, mediation, transfer of the case for consideration in court, and most importantly, support for the claim until its logical conclusion.

AI monitors the progress of the case until its logical conclusion, ie, it exercises control over (i) acceptance of the application, (ii) mediation, (iii) the legal process, (iv) resolution of the problem by the Supreme Court, (v) resolution of the problem at the legislative level, and (vi) execution of the court’s decision.

First and foremost, official websites of all courts and law enforcement agencies of the state should be combined into one interactive platform to simplify the search and online submission of applications. The function of AI at this stage is to accept an application from the applicant in accordance with the requirements of the legislation. AI guides the applicant by asking directive questions until the correct application form

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is reached and requests the necessary documents for acceptance for review. All submitted documents should be digitized, except for exceptions where digitization is currently not available.

After filling in the necessary fields of the application, AI accepts it for review and initiates a request for a ‘predictable’ decision from the judge simulator. Based on its results, the applicant has the right to refuse or further review the application. Here, in addition to the decision-making process, AI (i) analyzes the reasons for the plaintiff’s refusal, (ii) checks the criminal nature of the evidence presented, (iii) identifies the reason that prevented the completion of the application, (iv) takes action if it detects violent actions against the plaintiff, (v) sends the unfinished application to the “criminal” or “family” section to law enforcement agencies for verification and preventive measures against violence and blatant human rights violations, (vi) identifies a statistical problem (legal or technical) preventing the acceptance of applications, (vii) sends the identified problems to the relevant bodies for resolution, (viii) informs the parties about the problem resolution, and much more.

4. Mediation

The accepted claim, together with the results of the ‘predictable’ decision, is sent to the defendant for consideration. The defendant is given a certain period to present their arguments for refusing the plaintiff. The AI enters these arguments into the judge-simulator’s database and sends the plaintiff the results of the ‘predictable’ new decision for further consideration. In fact, this procedure represents mediation and is conducted until the judge-simulator makes a decision that satisfies both parties. In addition to the mediation procedure itself, AI (i) analyzes the reasons that prevent the process from satisfying the parties, (ii) checks the criminal nature of the evidence presented by the parties, (iii) identifies gaps and inconsistencies in legislation, (iv) identifies statistical problems in the mediation process, (v) sends identified problems to the appropriate authorities for resolution, (vi) informs the parties about the elimination of the problem, (vii) directs and monitors the execution of the decision approved by both parties, and more.
5. **The judicial process**

If one party believes that there are legal or technological gaps in the judge-simulator’s decision, they can demand that the case be heard by a real judge. After thoroughly studying the case, the judge makes their own decision, justifying the incorrectness of the judge-simulator’s decision. If legal gaps or inconsistencies in legislation are revealed during the judicial process, and the judge cannot make a fair and reasonable decision, the case is suspended. The problem is then passed on to the AI in the Supreme Court, following all data protection regulations. If there are no substantial grounds for changing the judge-simulator’s decision during the court hearing, the court approves the judge-simulator’s decision and holds the party accountable for not substantiating their claim. Here, AI (i) monitors and informs the parties about the deadlines for all court procedures, (ii) checks the criminal nature of new evidence presented by the parties, (iii) keeps records of court sessions, (iv) acts as a judge-simulator, (v) can serve as a scientific and practical advisor to the judge, (vi) sends identified problems and inconsistencies in legislation to the Supreme Court for resolution, (vii) monitors the decision-making process online, (viii) informs the parties about the elimination of the problem, (ix) directs and monitors the execution of the judicial decision, and more.

6. **Resolution of the problem by the Supreme Court**

Here, the AI (i) conducts online monitoring of the Supreme Court’s consideration of the case, (ii) can recommend reasonable options for applying foreign law by analogy, (iii) analyzes and summarizes the opinion of the entire panel of judges, (iv) keeps records of court sessions, (v) acts as a judge-simulator, (vi) logically concludes the judicial process with a positive decision to resolve the problem, (vii) adds the normative act to the AI database, and (viii) in case of a negative decision, passes it for further discussion at the legislative level.
7. **Resolution of the problem at the legislative level**

Here, the AI (i) monitors the deadlines for considering the issue in the ‘virtual’ parliament, (ii) informs the parties about the resolution of the problem, and (iii) directs and monitors the enforcement of the court decision.

8. **Enforcement of the court decision**

Here, the AI (i) as an enforcement officer executes the court decision in digital form if possible (online debt collection, conducting online auctions of digital real estate, etc.), (ii) monitors the deadlines and activities of court executors online, (iii) identifies problems hindering the enforcement of justice, (iv) passes the identified problems to the appropriate authorities for resolution, and (v) informs the parties about the resolution of the problem, and more.

The emergence of new human rights and positive aspects of the Theory of Transparency in Legal Proceedings Predictable law is the right to predictable justice based solely on the letter of the law without the human factor. This means that if the applicant enters accurate data, there is every reason to protect their rights under the law, and in the case of a decision opposite to the AI, the judge is obliged to justify it.

Modelled Law – the right to receive free legal advice for modeling (predicting) upcoming legal proceedings. Based on new data entered, AI can model various outcomes of predictable decisions and give legal advice on the correct formation of the evidence base. In addition, anyone without legal education can use this free service, reducing their expenses on expensive legal support.

Right to peace of mind. AI will not consider an application if there is not sufficient evidence of the defendant’s guilt. After all, the plaintiff’s arguments and facts

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will be checked when the application is filed, not during the traditional legal process. This means that the defendant has the right to protection against groundless and unfounded claims arising from acts of ill will, criminal activity, or other reasons. The principle of the presumption of innocence will come into effect when the burden of proof rests with the plaintiff, and the right to peace of mind will be realized in practice.\(^\text{16}\)

Online broadcast of legal proceedings. Provided that all data protection procedures are met, online broadcasting will allow the media and all interested parties to track legal proceedings. This will help achieve transparency, anti-corruption policy, reasoned and adequate legal decisions, and limit various external pressures on the outcome of justice.

Competitiveness of the judiciary. The judiciary will have to compete with artificial intelligence in making alternative decisions. This means that a judge must prove his or her scientific and practical decision-making that differs from the reasoned decision of AI. The state and society will have the right to provide legal and social assessments of the actions and decisions of judges. Therefore, the judiciary will have to work thoroughly on continuous professional development.

Accessibility of justice. The use of online applications will ensure free access to fair justice, erase the boundaries of legal literacy, spatial and temporal distances, and various social and material inequalities.

Automating the justice system and reducing timeframes will quickly resolve many standard social and household disputes in civil law (property division, inheritance, etc.), commercial law (contractual relationships, consumer protection, etc.), obvious human rights violations, administrative disputes (fines, taxes, utility payments, etc.), and other statistical disputes that do not require a human factor and can be resolved at the normative level.\(^\text{17}\)

The process of identifying problems and directing them to state authorities: The AI system will identify practical material and procedural legal problems, contradictions

\(^{16}\) A Duff, ‘The right to mental peace’ (2016) 10 Criminal Law and Philosophy 677.

in legislation and human rights violations, and statistical problems. It will promptly
direct them to the relevant authorities for resolution and control the resolution of the
problems at the legislative level.

9. **Monitoring the entire process and logically completing the case**

The AI will enable monitoring the lawfulness of all actions of the participants
in the legal process and notify in advance of any violations of the time limits of legal
proceedings and legislative activity. It will ensure transparency and fairness of the legal
process and will complete the legal case, including its execution.\(^{18}\)

10. **Risks in the theory of transparency in legal proceedings**

10.1. **Dehumanization of the law**

According to some scholars, full automation of judicial decisions leads to
dehumanization of the justice system.\(^{19}\) The principle of humanity displayed by the
judge will be absent, which is an integral part of any legal decision. Due to the
imperfections of AI in determining and analyzing emotions, feelings, spiritual condition,
humanity, and other qualities inherent only in humans, it is necessary to define the
boundaries of AI application in legal proceedings. The most important thing is to
establish the categorical right of a judge to make decisions in the fields of family
relationships, criminal prosecution, and religion. However, it is essential to remember
that all normative acts included in the AI database were adopted by people based on
the principles of humanity. AI naturally applies material and procedural norms similar
to a real judge through a judge-simulator. At the same time, a vast number of legal cases


\(^{19}\) V Mayer-Schönberger and T Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think*
(Mariner Books 2021).
do not require an analysis of a person's condition; previously made legal decisions and legislative norms are applied automatically, which will reduce the human factor in making legal decisions.\textsuperscript{20}

\textbf{10.2. Limitations of data analysis}

While AI can be used to search for solutions in legal cases by conducting limitless data analysis in cyberspace, this can also prolong the legal process. Therefore, it is essential to define and restrict the scope of AI’s search for solutions at all stages of the legal process, both in terms of time and space.

\textbf{10.3. Technical risks}

As an automated system, AI is directly linked to information technology, communication lines, software, electricity, and other technical resources. Risks such as hacking, data theft, viruses, unauthorized changes to the database, and other technical and human factors cannot be ruled out. Thus, special attention should be given to cybersecurity when using AI. Modern technologies allow constant monitoring of illegal intrusions into the system, and various technical means ensure the necessary level of security.\textsuperscript{21}

\textbf{10.4. Unpreparedness of the traditional legal system for IT challenges}

Digitization and virtualization expand the range of technical procedures in the legal process, requiring new legal frameworks and technological solutions. Examples include the emergence of new rights requiring regulation, lack of clear AI powers, the need for significant capital investments and scanning of previously resolved cases, some adults' resistance to radical IT changes, unsatisfactory current legislation, the need for technological updates in all government agencies directly or indirectly related to the


new legal process, the impossibility of digitizing certain types of evidence, and more.\textsuperscript{22}

However, I believe that these risks can be resolved as they depend on material costs and societal motivation. The final stage of the Theory of Judicial Transparency will be the adoption of the Digital Justice Code, the goal of which is to provide a legal framework for the new transparent judicial system based on information technology and the protection of human rights.

\textbf{11. Conclusion}

This article describes the mechanism of AI implementation in lawmaking, executive and judicial branches of government, outlines the goals, tasks, and functions of AI, as well as the positive and negative aspects of AI implementation in the administrative system of the state. It is evident that humanity stands on the threshold of a new socio-economic formation – an information-technological society, where the population is technically capable of influencing democratic governance. Having modern technological tools, society has a real chance to develop and implement ethical, legal, and technological principles in a ‘virtual’ parliament and other ‘virtual’ state structures. The virtual legislative platform will enable transparent public legal decisions based on the principles of social justice and equality, freedom of speech, the right to vote, the right to represent one’s own interests, protection of violated constitutional rights, and more. Online monitoring of the activities of government officials and the analysis of the functioning of all branches of government by artificial intelligence will allow society to give them an objective assessment and timely response. The implementation of AI in the judicial system will allow for the tracking of the lawfulness of all actions of participants in the judicial process, advance warning about violations of the terms of legal proceedings and lawmaking, ensure transparency and fairness of the judicial process, and complete the legal case, including its execution. Additionally, AI will enable the development of new human rights such as predictable law, modeled law, the right

to mental peace, improvement of the intellectual potential of the judiciary, accessibility to justice, and most importantly, monitoring of the entire process and logical completion of the legal case. AI, being a transcendent creation of humans, represents both prosperity and a threat to civilization. In this work, I have provided the vision of global AI threats and proposed a way to prevent them.