CYBERSYMBIOSIS OF HUMAN JUDGES AND ARTIFICIAL INTELLIGENCE: PROBLEMS AND POTENTIAL SOLUTIONS FOR INTEGRATION AND FOR THE SUCCESSFUL MODERNIZATION OF THE JUDICIAL SYSTEMS OF THE BRICS COUNTRIES(*)

İNSAN HAKİMLERİN VE YAPAY ZEKÂNIN SİBER SİMBİYOZU: BRICS ÜLKELERİNİN YARGI SİSTEMLERİNİN ENTEGRASYONU VE BAŞARILI MODERNİZASYONU İÇİN SORUNLAR VE OLASI ÇÖZÜMLER

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Abstract

Today, there are many economic and international unions and associations. One of the most interesting from the point of view of globalization, decentralization, and strategic partnership is the BRICS union. In parallel, the agenda includes the issue of the need for strategic reform of the legal sphere in the context of the development of advanced technologies such as artificial intelligence and much more. The above points are the reason for interest in conducting this research, in particular, this article examines the situation of cybersymbiosis between humans and artificial intelligence in order to consider how this phenomenon can be applied in the BRICS countries. The article proposes a structure that will allow the use of expert systems and the capabilities of people in order to improve justice with the integrated use of modern technologies. Using the research design discussed in the article, it can be noted that artificial intelligence is expected to help cope with tasks in the analysis and systematization of various phenomena, and intelligent models make it possible to create a system of responsibilities and proposals that can take a personalized approach to the issue of rulemaking.

The main goal of this article is thoughtful cooperation within the framework of cybersymbiosis between humans and artificial intelligence, which will help the BRICS countries to target the vector of development of law-making activities, including such provisions of the vector of change as court cases, cases, writing regulations and much more. However, there remain a number of threats that need to be resolved in order to get rid of ethical and other misunderstandings on the part of artificial intelligence developers, the operation of various automated systems and other problems. In addition, the article offers a number of suggestions and solutions that will help potentially get rid of the above problems.

Keywords

Cybersymbiosis, Artificial Intelligence, Neural Networks, Court, BRICS Countries, Law Enforcement.

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Öz

Günümüzde birçok ekonomik ve uluslararası birlik ve dernek bulunmaktadır. Küreselleşme, ademi merkeziyetçilik ve stratejik ortaklık açısından en ilginç olanlardan biri BRICS birliğidir. Bununla paralel olarak, gündem yapay zekâ ve daha pek çok gelişmiş teknolojinin gelişimi bağlamında hukuk alanında stratejik reform ihtiyacı konusunu içermektedir. Yukarıdaki noktalar, özellikle bu makalenin BRICS ülkelerinde uygulanabilecek insan ve yapay zekâ arasındaki sibersimbiyoz durumunu incelemesi bakımından, bu araştırmanın yürütülmesine olan ilginin nedenidir. Makale, modern teknolojilerin entegre kullanımıyla adaleti iyileştirmek için uzman sistemlerin ve insan yeteneklerinin kullanılmasına olanak tanıyacak bir yapı önermektedir. Makalede tartışılan araştırma tasarımı kullanılarak, yapay zekanın çeşitli olguların analizi ve sistematikleştirilmesi görevleriyle başa çıkmada yardımcı olması beklendiği ve akıllı modellerin, kural koyma konusunda kişiselleştirilmiş bir yaklaşım benimseyebilecek bir sorumluluklar ve öneriler sistemi oluşturulmasına olanak sağladığı not edilebilir.

Bu makalenin ana amacı, insan ve yapay zekâ arasındaki sibersimbiyoz çerçevesinde düşünceli bir iş birliğidir. Bu iş birliği, BRICS ülkelerinin yasa yapma faaliyetlerinin gelişim vektörünü hedeflemesine yardımcı olacaktır. Bu değişim vektörü, mahkeme davaları, vakalar, yönetmelik yazımı ve daha pek çok konuyu içermektedir. Bununla birlikte, yapay zekâ geliştiricileri tarafından etik ve diğer yanlış anlamaları, çeşitli otomatik sistemlerin işleyişini ve diğer sorunları ortadan kaldırmak için çözülmesi gereken bir dizi tehdit hala mevcuttur. Ayrıca makale, yukarıda belirtilen sorunlardan potansiyel olarak kurtulmaya yardımcı olacak bir dizi öneri ve çözüm sunmaktadır.

Anahtar Kelimeler

Yapay Zekâ, Sibersimbiyoz, Sinir ağları, Mahkeme, BRICS ülkeleri, Hukuk Uygulaması.

I. INTRODUCTION

A. REVIEW OF THE TOPIC OF CYBERSYMBIOSIS BETWEEN HUMANS AND ARTIFICIAL INTELLIGENCE

Speaking about cybersymbiosis, it is important to note that this concept is innovative and refers to the interaction between humans and computers as parties, each of which will have a number of powers, functions, needs, and parameters[1]. With the emergence and development of artificial intelligence (AI) systems, especially with the advancement of Large Language Models technology (such as GPT, Transformers, etc.), BRICS countries have begun to show interest in this technology as it promises to solve various problems with particular effectiveness. Initially, the question of using analytical tools and expert systems to address pressing issues was raised. Indeed, speaking of specific examples, it is important to say that, for instance, in India there is a very large number of cases that the traditional justice system cannot handle; for example, more than twenty million cases are still pending and are not progressing through the stages of resolution. This suggests that not every person has the opportunity to have their cases heard fairly[2]. Additionally, it may be noted that other countries, such as some countries in South Africa, also require protection but do not pursue cases[3]. By introducing a judicial system where both humans and AI are present, such limitations would disappear, as many cases could be considered at the first stage using automated systems, as well as human participation, since summarizing and annotating cases would significantly solve the problem of case stagnation[4].

The use of expert systems (AI) in the judicial system has actually become a major issue for the BRICS countries (Brazil, Russia, India, China, South Africa), which have strived and continue to strive to improve rule-making in this matter. However, there are a number of problems associated with the automated functions of the judicial system, which threaten the most important values in matters of justice and accountability. Therefore, it is very important to consider models that can combine all aspects to solve problems. Speaking about the context of the court, it is worth considering that a person has a certain abstract and contex-

[1] Parasuraman R, Sheridan TB, Wickens CD, 'A Model for Types and Levels of Human Interaction with Automation' (2000) 30(3) IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans 286, 297.

[2] 'Access to Justice Survey' (Daksh India 2018).

[3] McQuoid-Mason D, 'Access to Justice in South Africa: Are There Enough Lawyers?' (2013) 3(3) Oñati Socio-Legal Series 561, 579.

[4] 'Supreme People's Court Work Report' (Supreme People's Court of China 2021).

tual thinking, as well as cultural awareness, and most importantly, a sense of justice, which AI is yet to acquire in the future. In parallel, AI can expand human limitations, for example, a person cannot work with such a huge amount of data as AI. At the same time, it is important to note that it is necessary to overcome those problems that are paramount, primarily related to discrimination, inaccurate, incorrect answers, false concepts, etc., especially in the context of the BRICS countries, since the article is dedicated to them. Ultimately, the approach of implementing modern technologies is expected to become an indispensable tool in the legal field of BRICS countries.

B. SIGNIFICANCE AND RELEVANCE OF THE STUDY FOR THE DEVELOPMENT OF RULEMAKING

This research is primarily aimed at developing certain frameworks and mechanisms that could be suitable for the symbiosis of judicial systems in which both humans and AI systems would appear, which could be suitable for countries belonging to the BRICS Union. This mechanism would allow working with huge amounts of data, as well as taking into account various subtleties in unstructured information, through which further technological and political developments would occur that could be successfully implemented together with AI systems in the courts of the BRICS countries.

The BRICS countries are making every possible attempt to speed up the development of AI systems, and a number of cooperation agreements have already been signed on reforms in the regulatory creation system[5]. However, there are a number of limitations, such as, for example, each country's personalized approach to justice issues, personalized data protection regime, mentality, cultural views and much more, which is imperative to take into account before certain documents are issued that will spell out human interaction and cars. It is important to approach with a humanistic focus, since the interests of this law should be primarily aimed at people.

The research conducted as part of this work is aimed primarily at the theoretical and practical justification of the recommended regulatory and other frameworks and mechanisms so that judges can apply AI in the BRICS countries in order to improve the functioning of the justice system in the above-mentioned countries. The results of this work can be considered relevant, if only because they will be incredibly useful in the practical work of politicians, judges, technologists and other authoritative persons included in the leadership of the BRICS countries, who strive and, according to their functional responsibilities, want to improve the judicial systems, which will also help them practically implement the AI system in practice.

II. METHODOLOGY

A. LITERATURE REVIEW

As part of this study, a primary literature review was conducted. The academic database search produced a vast array of information in databases such as Scopus, Epub, SSRN, ResearchGate and many others. Innovative articles of recent years were analyzed on such topics and areas as cybersecurity, legal liability, AI in law, cyber law, combating cyber threats and much more. In addition, articles and legal documents of the BRICS countries, representatives of the academic communities of the countries of this union, and many other works were analyzed.

In addition, advanced models were reviewed, which included the interaction of humans and AI in developed countries, as well as successful cases of practical application of measures to bring technology and human capabilities closer together. Research data on ethical, moral, technological and other issues that had to be taken into account for further work with the article were collected and summarized. All this made it possible to deeply analyze the legal, technical and other components of the state of development of such issues as automation, AI and the ethical applicability of technologies in legal systems.

B. COMPARATIVE ANALYSIS OF APPROACHES TO DETERMINING THE ROLE OF AI AND HUMANS IN VARIOUS BRICS COUNTRIES

In addition to the conducted literature review, a comparative analysis of the approaches and positions of key participants (BRICS countries) was also carried out on how they define the role of AI

[5] BRICS, 'Joint Statement of the BRICS Ministers of Foreign Affairs/ International Relations on Strengthening and Reforming the Multilateral System' (2020).

and humans in the judicial system, which would allow for further reforms and changes in this direction. Various government reports, roadmaps, plans, comments, media coverage and more were reviewed. It is worth saying that countries have quite different approaches to such concepts and areas. For example, if we talk about China, this country puts ethical issues at the forefront, which it asks to resolve before introducing any systems, but is not a supporter of banning these systems[6]. Speaking about India, there is more emphasis on the effectiveness of such systems so that they bring benefits and economic profit to humanity[7]. In South Africa, they first of all propose to consider the implementation of AI systems in order to resolve administrative and legal matters[8]. Therefore, before arriving at the results of our study, we analyzed all the information described above.

C. ASSESSING THE ADVANTAGES AND DISADVANTAGES OF DIFFERENT COMPETENCIES AND POWERS BETWEEN HUMAN JUDGES AND AI SYSTEMS IN THE CONTEXT OF THE BRICS COUNTRIES

In addition to literary and comparative analysis, we carried out methods of multi-criteria analysis of the model, which made it possible to understand how different assessments of the trade-offs between the assignment of various tasks of the judicial body for the essence of people can be found, and which tasks can be solved by AI systems within the framework of a personalized approach in order for them to suitable for all BRICS countries. First of all, in addition to the ethical and purposeful aspects, other secondary factors were taken into account, such as efficiency, speed, credibility, accuracy and others that could be suitable for the above countries. First, it is important to note that this methodology made it possible to understand that most problems can be solved using a mixed model, since the initial processing of creating structured components falls on the shoulders of AI systems, and a more human-centered system can be solved by people. The final decision on what tasks will fall within the competencies and powers of AI and human judges should be made at a later stage, and include: subject matter experts, technology specialists, lawyers and representatives of BRICS governments.

III. RESULTS OBTAINED

A. THE NEED TO IMPLEMENT AI SYSTEMS IN THE JUDICIAL SYSTEMS OF THE BRICS COUNTRIES

1. Current Limitations of Court Systems

Countries belonging to the BRICS union have many problems that prevent legal and judicial cases from being resolved in a fair manner, in accordance with the demands and problems of the current time. Such limitations, as mentioned earlier, include the accumulation of cases not reviewed in time, the lack of timely access to cases for a socially vulnerable segment of the population, a large number of controversial decisions in similar cases, difficulties in processing a large amount of data, as well as a considerable likelihood of making mistakes at various stages of consideration of cases.

In addition, as mentioned earlier, in the BRICS countries, cases are not processed on time in every country. Thus, in India, the previously mentioned cases (in the number of more than 20 million cases) have been waiting for consideration for decades, and those cases that do get their turn are not always considered transparently and fairly. In addition, vulnerable populations often have problems traveling long distances to get to court. Moreover, there may be cases when a case began to be considered in one court, but was then transferred to other courts, where the consideration process could also be delayed.

Furtthermore, a number of problems are observed in other countries. For example, in Brazil, it takes a long time to process a case[9]. Some reports indicate that there are partial violations of an important nature, such as corruption schemes, transparency in making decisions, and much more. In addition, the

[6] Feng E, 'How China is Using AI in Its Courtroom - The First AI Judge in the World is in China' (TechNode 2021).

[7] Choudhary A, 'Role of Artificial Intelligence in Judiciary' (2018) 6(1) International Journal of Advances in Science Engineering and Technology 17, 19.

[8] Odendaal N, 'Case Study on the Use of Artificial Intelligence in the Public Sector - South Africa' (UNDP Global Centre for Public Service Excellence 2020).

[9] 'Brazil's Justice is Very Slow' (The Brazil Business 2019).

courts are accumulating a large number of cases that are being considered slowly[10].

In addition to the above examples, there are other examples of how different problems manifest themselves in litigation at different stages of the case[11]. Experts and judges do not always cope with a large accumulation of cases, because a huge amount of data, often presented in digital form, often exceeds human capabilities for processing data. Therefore, we believe that the judicial systems of the BRICS countries need to be reformed and improved.

2. Eliminating Constraints with AI

AI has a number of positive opportunities to combat the limitations that exist in the various judicial systems of the BRICS countries. For example, through automated analysis of documents and cases, AI algorithms (using machine learning, neural networks, and other mechanisms) can also provide recommendation systems for various sanctions, decisions, and evidence.

Moreover, AI can be used in preparing preliminary assessments and assisting in the preparation of template documents at centers in urban and rural areas. In addition, translation using AI helps to work with a large number of different linguistic groups. There are also cloud systems that can work and analyze a large amount of information. It is important to note that the targeted use of neural networks and other types of AI can make justice systems more accessible, adapted to the modern day, as well as systematized and simplified.

3. Examples of Successful Application of AI in Various Public Sector Contexts in the BRICS Countries

Countries that have applied an AI system in the public sector have implemented these technologies in areas such as the tax industry, police activities, verification of various documents for obtaining any contracts, including industrial and defense systems, which also include the creation of models and the dissemination of these implementations into the judicial industry.

Speaking about specific examples, it is important to note that, for example, India has included machine learning technologies in the tax system, where there is already high efficiency and transparency of this system in those regions where this technology has been introduced and tested[12]. In addition, we can cite the example of China, which implemented an AI system in order to conduct preliminary testing and forecasting in various cases related to the possible commission of a crime, and also helped law enforcement officers distribute forces and resources in the most optimal way.

South Africa has taken the path of social implementation of AI technologies into the public administration system and introduced these technologies in order to provide a fair and efficient system for the payment of social benefits for disability and alimony, thereby improving existing systems, making them more accurate and adaptive.

The Russian Federation did not pass by either, which created a direct division of neural network technologies in order to introduce them into the military, for example, for intelligence technologies and control. Decisions like these to implement AI systems indicate increased demand, and can also bring both benefits and improvements, allowing for cost savings, increased transparency, improved user experience, as well as consideration of the data that is collected, taking into account context and ethics when collecting and analyzing data, as well as carry out other procedures. Similar examples of the successful application of AI technologies, as well as other existing examples in various unions and countries, can serve as an impressive vector for all BRICS countries to modernize their judicial systems.

4. Potential Opportunities of AI for Modernizing the Judicial Industry in the BRICS Countries

Speaking about specific applications of machine learning and other AI technologies, it is worth noting the most basic areas. The first is a review of legal documents. For legal documents, it can be said that the

[10] Gomes AO, Guimaraes TA, Akutsu L, 'The Relationship between Judicial Staff and Court Performance: Evidence from Brazilian State Courts' (2016) 32(4) International Journal for Court Administration 81, 89.

[11] Wang Y, 'Judicial Reform of Chinese Characteristics: A Mixture of Progress and Inertia' (2021) 2021 United States Association of Comparative Law.

[12] Sikdar S, 'How India is Using AI to Enhance Tax Collection and Prevent Fraud and Corruption' (Analytics Insight 2021).

above technologies can quickly analyze and identify a number of evidence and other points that can be reflected for further analysis. The second is predictive systems. For example, predictive algorithm systems can take into account past actions and decisions in order to develop probabilistic models that will be used in practice, directly subject to the necessary tests and tests. The next point is an evidentiary check. Using AI, you can check the accuracy of any documents and other resources. The following is judicial documentation, which helps, with the help of AI, to recognize certain signs and characteristics that can be presented during a court hearing. Additional opportunities include the implementation of AI in areas such as sentencing databases, case management, translation services and, finally, the ability to conduct virtual court hearings.

The above technologies primarily suggest that the symbiosis of human and AI in court proceedings, especially in the context of the BRICS countries, can increase transparency and efficiency in a number of cases that were described above.

5. Hypothesis About Human-AI Interaction to Improve the Justice Functioning Model

Having analyzed all the above areas and existing limitations, we can form a hypothesis that the symbiosis of human and AI within the judicial systems of the BRICS countries will significantly improve the efficiency, accessibility and quality of justice. The unique capabilities of AI, such as high-speed processing of huge volumes of data, extracting valuable insights from unstructured information on cases, combined with human competencies, such as contextual thinking and objectivity, with proper interaction, can overcome many of the systemic problems that are hindering the development of BRICS judicial institutions today.

However, to realize this potential, it is extremely important to clearly define the areas of responsibility and limits of authority of both human judges and AI systems, ensure high-quality training of personnel, and introduce mechanisms to ensure transparency and accountability. In the following sections, we will examine in detail the proposed approach to creating such responsible and productive cyber-symbiotic judicial systems based on human-AI cooperation, adapted to the specifics and needs of the BRICS countries.

B. MODEL OF SYMBIOSIS BETWEEN JUDGES, PEOPLE AND AI SYSTEMS

1. Uniquely Human Properties

Speaking about the unique human properties and competencies that only people can possess, it is important to note that first of all we are talking about justice, that is, a person's ability to take into account the context and weigh various circumstances in order to make decisions that are devoid, on the one hand, of emotional background, but on the other hand, taking into account the context and avoiding various prejudices. The machine is not yet capable of critical thinking. The second quality I would like to talk about is wisdom. First of all, we are talking about the fact that the human brain is able to correctly build various connections and understand when it makes mistakes, from which it learns. The third thing I would like to talk about is thinking in context, which allows a person to avoid various statistical situations and act dynamically in a context-oriented manner. The next point is the supervisory component, which helps a person control and analyze various circumstances that may be incorrect in a given situation, including self-control. And the last most significant point and criterion is communication, which allows a person to explain the decisions that he makes, as well as take into account various restrictions that a person also tries to avoid.

As a result, it is important to emphasize that the AI system, although it is at a high stage of development and improvement system, still has those characteristics that are unique to humans.

2. Unique Competencies of AI

In turn, AI also has a number of advantages and unique features. First of all, we are talking about speed. AI systems can very quickly analyze large amounts of information and build a number of characteristics and contextual relationships, which is still beyond the control of humans. It is also about recognizing patterns that AI algorithms can detect in unstructured volumes of information, including both numerical and textual information, which is very suitable for the legal field. The third issue to mention when talking about the unique characteristics of AI is consistency. When legal logic is codified

using AI, it is possible to build different sequences of interactions that were inherent in previous cases. The unique memory of AI can store details of information about incidents that occurred previously. It can be noted that AI, although deprived of some human competencies, is capable of solving a number of legal judicial circumstances in many characteristics that require some logical improvements and influencing the judicial system as a whole.

3. Task Distribution

The above criteria, which are unique to humans, and the criteria that are unique to AI, must be distinguished by the distribution of tasks. For example, the final judgement, the assessment of the credibility of witness testimony, and other systems associated with sentencing and the emergence of new cases should be decided only by a person. At the same time, viewing and analysis of various large volumes of data, a recommendation system, forecasting, aggregation, and systematization can be inherent in both AI and humans. Tasks that should only be attributed to AI may include, for example, translating various judicial information at a meeting in real time, introducing various schedules and compiling prognostic lists, servicing various chatbots in real time, compiling a database using textual information and big text data. Thanks to this structure, which is described in this section, it will be possible to build the correct various systems of task distribution, which will be quite uniquely suited to most judicial precedents.

4. Models of Symbiosis between Humans and Machines, Adapted for the BRICS Countries System

BRICS judicial systems can also rely on such points and contextual meanings that human judges will be better oriented to cultural, social wisdom to engage in fair, transparent adjudication. In turn, assistants will analyze cases using AI. Also, speaking about AI tools, it can be noted that they will document other details and generate various reports. Through constant interaction between humans and AI, joint activities will take place in which various update systems, analyzes and other models will be compiled that will help improve the entire court system as a whole. With such a distribution of labor, where the distribution of competencies will be clearly defined, the conditions and criteria will be theoretically taken into account, under which both fair decisions and other points that must be directly taken into account will be taken into account. All this can be further implemented into the system of judicial components.

5. The Importance of Symbiosis and Possible Improvements

At the same time, the above-mentioned consideration of criteria and parameters, taking into account the competencies of humans and AI, as well as the joint interaction of humans and AI within the framework of a court hearing and other systems of the judicial industry, can bring a number of positive features, including the fact that the possibility of efficiency of the judicial system as a whole will expand, The time for analysis and forecasting based on available information will be reduced, and valuable information will be provided to judges in brief summaries, which will help them see the case in a more integral and general position. Human prejudices will also be reduced due to the fact that a person will be provided with analytical data devoid of emotional overtones. In addition, transparency will increase, since systems generated by AI and output data will be verified and taken into account from the point of view of objectivity. All this will allow the countries belonging to the BRICS Union to better carry out very important and responsible tasks and tasks that will allow them to achieve the principle of the rule of law and law. The symbiosis of man and AI, taking into account and having the delimitation of competencies of both the first and second parties, can allow for the responsible integration of AI into the judicial systems of countries.

C. TECHNOLOGICAL SOLUTIONS FOR THE INTRODUCTION OF AI INTO THE COURT SYSTEM

1. AI Architecture

Speaking about the proposed assistant based on AI in order to expand the capabilities of representatives of the judicial system, it is important to mention first of all the architecture that will be presented in this assistant based on AI. The first is an interface that will be based on a web design interface that will help peop-

le access the neural network assistant seamlessly using gadgets. The second is the level of integrative connection of the neural network system with databases, for example, where documents and various data will be stored. The third is the extraction of information using special modules and plugins that will work with structured and unstructured information based on human rights, court decisions using neuro-symbolic programming. The next item is an information extraction module that will help predict and apply various methods of already statistical information and work methods, such as regression analysis, clustering analysis, based on what data will be extracted and what data will be obtained from it.

The next point is Natural Language Generation (NLG), which helps to formulate various projects for restoring documents in a form that will be convenient for a person. With all this, automation of the work process should be associated with the fact that a person should have an idea of how things are progressing and what needs to be done. The next issue to mention is, of course, the explainability module, which will represent various situations, factors that will influence the forecast and recommendations of AI on queries about how it works. The final issue to scrutinize is the means of ensuring the confidentiality of the system, such as, for example, encryption systems, which will ensure the confidentiality of data in various cases.

The design and implementation principles suggest that data integration, which will be associated with a system of political, progressive analyzes of work processes and opportunities, should be exactly such an architecture of the judicial systems of the BRICS countries.

2. Features of the Assistant Program Based on AI

In order for AI systems to work in tandem with a person, he/she, of course, must first of all talk about expanding capabilities. First of all, it should be multilingual neuro-linguistic programming in order for him to understand the context, various metaphors and comparative characteristics that differ in different languages. To do this, he/she needs a large database. The next thing that AI needs in order to carry out its tasks is a legal and theoretical understanding of the context of those documents, biological justifications that will be used in algorithms when building AI. The next thing to mention is advisory forecasts that would allow the AI system to take into account various factors of the situation. Next is workflow optimization. The AI system constantly needs to improve and find more convenient solutions in order to create recommendation systems that will be accepted in the systems of judicial panels. Speaking of this, one cannot fail to mention reliable security systems, which must take into account cybersecurity systems and functions, where audit mechanisms must be applied.

Systems introduced into the modern structure of the judicial system must first of all have a systematic approach to precisely those characteristics that are paramount today and represent relevant structures.

The next issue to scrutinize is exactly how the proposed assistant will be implemented using the leading capabilities of AI. First of all, this is, of course, predictive analytics, which refers to machine learning methods and, at the same time, will provide highly accurate forecasts. The second issue to mention is tools that relate to workflow and will optimize and automate proper workflows in court. These include Airflow, XGBoost systems and much more. However, there are a number of problems that need to be addressed today. It is necessary to apply developments of an adapted nature that will be guided by ethical principles and protect human rights.

3. The Interface that is Proposed and Implementation in Work Processes so that a Person Can Interact with AI

Having mentioned what AI needs in order to successfully work with a person, it is important to note that a person should also be comfortable. First of all, we are talking about the optimal interface and design so that a human judge can talk to AI or communicate via text. In addition, the dashboard and board, which will show exactly the results that a person can view based on the recommendation system, setting parameters, must be implemented in such operating systems that work for a person. In addition, there should be application-based AI systems that will allow a person to access the Internet and simultaneously use AI systems.

In addition, it is important that a person rely on the AI assistant and not worry about the final decision being made by a human, and they must also understand that the AI was developed with ethical and legal contexts in mind.

4. Implementation Challenges Specific to BRICS Countries

Speaking about the problems that human judges may face when implementing AI systems to work in tandem, it may be that the digitalization of courts cannot be complete, since there are different standards that protect different types of data and they cannot be used in a complete way for training AI. In addition, there are various guidelines that protect the rights of citizens and their data, which also prevents this information from being trained and fed into AI systems. In addition, there are certain barriers between humans and AI, which do not allow these two parties to directly communicate on equal terms, because AI today is not perfect and makes a number of mistakes. The next matter worth mentioning is the different legal systems, since the BRICS countries have their own characteristics, and it is very difficult to build a universal system that suits everyone. The next point is the budget, since the BRICS countries have different budgets, and it is very difficult to adapt and create some kind of unified unique assistant systems, since each has its own budget.

All of the above suggests that although there are a number of problems, it will be possible to overcome them by finding the potential for implementation in order to jointly participate in the judicial system through the symbiotic participation of humans and AI systems.

D. DEVELOPMENT OF GENERAL PRINCIPLES

1. Call for an Update of the Legal Framework

In order to successfully implement responsible partnerships in tandem with the work of AI and humans, it is necessary to update the various legal standards that exist today. Speaking about the context of the BRICS countries, first of all, it is important to determine that it directly requires determining the capabilities of AI that will be given to it and what will be allowed. That is, for example, in court proceedings - what will happen when consulting the essence and what autonomous decisions will be applied. The general legislative framework of both the European Union and other countries that are members of this union must also be observed[13].

The next thing is, of course, the requirement for transparency in the development of AI, namely in the technological models that will be used in this system. For example, the legislation of the People's Republic of China requires that when implementing a court decision using AI, people must be informed about exactly what role AI played in a particular part of the judicial process[14].

If we talk about accountability and certification, the main point here is that many countries, such as Brazil, have a Data Protection Law that sets boundaries to protect the rights of users to ensure that AI systems are not used inappropriately[15].

In addition, it must be strictly ensured that when a person refers the problem to a court, he understands that he is addressing a fair system that will consider his case from the most objective side and make a fair decision[16]. The next issue to dwell about is that by harmonizing the above laws and standards, the BRICS countries can responsibly promote neural networks, machine learning, and other AI technologies, while respecting and not violating the rights of other participants in the court.

2. Policies Regarding the Regulation of Types of Cooperation between Human and AI in the Context of BRICS Countries

We believe that it is necessary to develop a general policy that will address the main points and cri-

[13] CEPEJ, 'European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems' (2018).

[14] Gulyamov S, Rustambekov I, Narziev O, Xudayberganov A, 'Draft Concept of the Republic of Uzbekistan in the Field of Development Artificial Intelligence for 2021-2030' (2021) 1 Yurisprudensiya 107, 121.

[15] Monteleone S, Puccetti R, 'A Global Look at Data Protection & AI: Legislating Responsible AI Development & Deployment. Recognizing the Promise & Managing the Peril' (Global Partners Digital 2021).

[16] Mehta PB, 'Emerging Role of Artificial Intelligence in the Legal Field and Justice System: Note from India' (2017) 12 Journal of Legal Technology Risk Management 124.

teria in this matter. Firstly, it says that it is necessary to create models that can be analyzed for the accuracy of data in various cases, in order to essentially consider them in the future, first of all, to increase administrative efficiency, while, of course, there will be widespread review by the judge. It is also important to define those models that will be prohibited so that developers understand which models can be used. The next point is those models that are limited, that are not allowed in practice, but that can be improved. They, of course, must be finalized taking into account the ethical and legal needs and points that are inherent in certain judicial systems of countries. In addition, policy must first of all emphasize the analytical component, and AI systems must take into account that risk systems can be different, and high-risk systems, even a system that shows results in real time, should influence only those moments which are within their competence.

Thus, we can say that it is important to approach this issue with a degree of responsibility in order to unleash the full potential in the tandem of the symbiosis of man and AI.

3. AI System Transparency

Here we are talking primarily about the need to conduct audits using proven methods of error analysis and provide explanations to all parties in simple language. It is also important to involve external expert groups, maintain detailed documentation, support citizens through consultations. People should know how AI model algorithms were built, on what principles the general AI system is based, as well as what data is used as input and output. All this will ensure transparency, explainability and openness of the AI system to protect people's rights.

4. Monitoring and Audit Mechanisms

Speaking about the not so standard and innovative industry discussed in this article, first of all it is worth saying that the audit should be separate. First of all, it is worth saying that here auditors must be not just lawyers, but also programmers, sociologists and other specialists who can qualitatively and objectively evaluate the work of an AI system, as well as all other components in which this system was created. In addition, it is imperative to keep track of various versions, updates, metrics, statistical reports, complaint books, feedback and various other references that will combat people's biases and help create an objective, secure and quality audit that will be carried out by ethical hackers in order to to identify vulnerabilities and combat them. In addition, of course, it is necessary to attract specialists from different countries in order to share experience and monitor each other's developments in various issues. All this will help build the specifics of the issues and needs of each party.

5. Redress Mechanisms

It is also important to talk about mechanisms for compensation for damage and errors that can be caused to a person in the context of the fact that he may encounter AI systems during the trial. First of all, it is worth saying that it is worth relying on the law regarding AI. It is also important to consider the significant harm that can be caused by interacting with AI systems. There should be some kind of error management processes in place, and any errors should be disconnected from the AI system, and if such an error is found, then the entire AI system should be suspended until it is resolved. In addition, crime victims should, of course, receive adequate compensation if AI errors lead to them being treated unfairly. There should also be recovery funds that will help a person restore his situation.

If a person has suffered serious harm with the participation of an AI system, then a solution is possible, including re-sentencing or deleting the record.

IV. CONCLUSION

In conclusion, I would like to say that the model of symbiosis of man and AI, which is intended to strengthen the judicial systems in the BRICS countries, is aimed primarily at increasing the efficiency of both administrative and other issues in all judicial systems and solving problems with bias, accountability, and other aspects of task distribution that can be encountered in human-machine interactions.

The main conclusion is that it is crucial to expand access to high-quality justice in BRICS countries today while mitigating risks that could compromise fair sentencing. By collaboratively addressing

challenges, it is possible to make better use of the benefits of digitalization. The future direction primarily aims to synchronize work processes for humans and AI, increasing efficiency at all stages and potentially elevating these countries to a new level of judicial effectiveness.

It is important to conduct testing, various sandboxes and international cooperation, to attract a wide range of specialists, including lawyers, sociologists, technologists, programmers, in order to ensure security and accountability at all levels. All this will help build modern and fair justice throughout the world.

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