

ARTIFICIAL INTELLIGENCE AND JUDICIARY: REVAMPING LEGAL SYSTEMS THROUGH TECHNOLOGICAL ADVANCEMENTS

YOGESH DHARANGUTTI*,
ABHIJIT VASMATKAR, KEERTHANA R., SNEHA N. V.

Symbiosis Law School Pune (SLS-P), Symbiosis International
(Deemed University) (SIU), Pune, Maharashtra, India

*Corresponding Author: yogesh.d@symlaw.ac.in

Abstract

The rapid advancement of artificial intelligence is transforming and led a path for evolution in various sectors. The ability of Artificial Intelligence to analyse the vast data and provide accurate and fair results or outputs gained the focus and concentration for integration. The paper focused on integration of Artificial Intelligence within the scope of judiciary. It also highlights the need for the accommodation of technological advancements in legal frameworks. AI cannot replace the human intervention but assist the human for efficient and fair results. It assists in tasks which are time consuming and lengthy such as legal research, reviewing documents and providing brief analysis. In courtrooms, AI's extends potential services, legal data analysis, virtual courtroom, evidence management, jury, behaviour analysis and predictive analysis. The analysis of AI's application in countries like Germany, USA and China provides insights for developing countries like India. The advancements can be improvised, limitations can be mitigated, and track is streamlined through analysis of application of AI in developed nations. Paper discusses about AI's track, on analysing automated evidence, witness testimonials, potential biases, forensic analysis, behavioural patterns, and digital communications. The admissibility and reliability of AI is always debated, and courts are trying to fill the gap for fair decisions. Insights of jurists and legal scholars are emphasized, their opinion regarding the need and limitations for implementation of integration is focused. Paramount Considerations and technological advancements to be prioritized prior to the accommodation is concluded as essential.

Keywords: Artificial intelligence, Courtroom and technology, Evidence, Judiciary, Trial.

1. Introduction

The rapid advancement of artificial intelligence has brought major changes in various sectors of the country, including the judicial sector. The reason behind the advancement of these technology is majorly because of its ability to process vast amounts of data and give accurate expected results. The integration of artificial Intelligence with judiciary has promised efficiency, accuracy, and fairness in legal proceedings [1]. This paper delves into the role of Artificial Intelligence in the judiciary, examining the use and scope of it in criminal trials, the use of it in courtrooms for reducing the burden of judiciary and the utility of such artificial intelligence system in evidence collection. Furthermore, the comparative perspective of use of artificial intelligence in other developed countries, the need to sculpt the legal frameworks of our country so as to accommodate this technological evolution etc., is discussed.

The use of artificial intelligence in trials is one of the important facets through which, the importance of artificial intelligence in judiciary can be discussed. Artificial intelligence can assist in the time-consuming tasks such as legal research and reviewing long files. Such files can be easily analysed and a brief of it can be provided. Moreover, the capability of AI to differentiate and classify between relevant information would help the officials in saving considerable time. The time when the world was still stand during the pandemic time, the technology took over everything and that was then the virtual courtrooms played a major role in resolving legal disputes. The uses of artificial intelligence in courtroom extends to the management of evidence, i.e. maintaining a proper record of the evidence, the behaviour analysis of the jury, sentencing algorithms, assisting judges in decision making, predictive analysis, etc. [2]. Moving on, understanding the nature of artificial intelligence used and operated in other nations are equally important when it comes to comparative analysis. Comparing and understanding its application in other nation states shall give a wide idea on how things can be implemented in a developing country like India.

2. Artificial Intelligence in Courtrooms

Artificial intelligence is revolutionizing the legal sector by streamlining the process. The most debated concern of AI is efficiency, accuracy, reliability, and effectiveness of legal system. The significant impact in courts: Transcription, Translation and Judicial guidance. The AI include understanding natural language, recognizing patterns, solutions, providing information and tools of AI include drafting legal documents, conducting legal research and anticipate outcomes.

- **Transcription in courts:** They record and store spoken words, statements, testimonials and translate and create transcripts. The Record depositions such as audio and video evidence are gathered to create a robust set of searchable records. Transcription services made ease to record court activities hearing speeding up of due process and reduce the cost judicial services. However the human aspect of stenography understands the concept and nuance, AI can misunderstand the context, and accuracy is always a question in inclusion of AI in the judiciary.
- **Translation in courts:** AI can translate the code proceedings for the citizens of nation in **their** own language and communication is effective by the court to the parties of the dispute. AI can take and return, written format and convert them into audio and aiding those who are illiterate to understand it in their own language.

- **Guidance to judges:** AI analyses the data and conduct legal research and aiding judges through recommendations and suggestions. These tools can speed up the decision-making process, but it may contain systematic bias in their data. Transparency is the drawback because the software creator does not disclose the algorithms for determination of the solution or suggestion.
- **Administration:** AI analyses the due process and organises the information recognising patterns in text documents and files can be useful and advises the potential parties of a case with a solution or a suggestion. AI monitors the law enforced and upholds the rights guaranteed to the citizens by the nation.

Comparative position proposes significant changes to the German and U.S. criminal justice systems with respect to machine generated evidence. While Germany must strengthen the legal tools available to defendants, the United States needs to continue to broaden the defence's access to forensic evidence by allowing out-of-court statements and reports by experts to be admitted and shared with both parties in order to optimize the objective scientific evidence provided to the trier of fact.

3. Artificial Intelligence in Trial

Artificial Intelligence has now reached into the complex world of justice. While it has already established its efficiency in this field including crime prediction, the focus lies on the core of the system itself, which is the use of artificial intelligence in trials. The benefits of these technologies, such as efficiency, objectivity, and transparency, the trend is towards the integration of Artificial Intelligence and Machine Learning in the judicial system [3]. Artificial Intelligence algorithms are starting to support lawyers, for instance, through artificial intelligence search tools, or to support justice administrations with predictive technologies and business analytics based on the computation of Big Data [4]. This section particularly delves into the emerging role of AI in the trials, which essentially explores the application of it. The trial is carried out in three phases namely, pre-trial phase, trial phase and post-trial phase.

3.1. Pre-trial phase

Be it civil or criminal cases, the two, extensively have a burden of lengthy pre-trial phase. A number of evident and other underlying factors result in this delay. Incorporating AI into the legal system offers the prospect of enhancing decision-making for judges, lawyers, and legal professionals, while concurrently providing the public with more streamlined, efficient, and cost-effective services [5]. The exchange of documentations is one such mandate in cases of both civil and criminal nature. This includes the exchange of vast number of documents. The intervention of Artificial Intelligence can analyse this data with unprecedented speed and accuracy and help in a swift and smooth discovery process. This will in turn save the time of the court and the parties involved. Understanding the scope of the case and its outcome is yet another important step in the pre-trial process as it helps in forming a strategy for formulating the case.

3.2. Trial phase

The same shall be elaborately discussed in the upcoming topic of integration of AI in evidence. Apart from the process of law aspect, AI can help in analysing the facial expressions and attention span of the judicial officer, in turn giving valuable suggestions for the lawyers to adjust the presentation style or have a more persuasive or lucrative argument style [6]. Though the trials are carried out in the jurisdiction of

the subject-matter itself, it can at times be inclusive of multiple languages. One example for this can be an incident which happened in the recent Additional sub court of Palakkad, wherein one accused, hailing from the northern part of India was presented in the court. The accused knew only the Hindi language and no counsels, or the judicial officer herself was fluent in the language. This resulted in the posting of the case to a longer date, where the counsel was instructed to appoint a translator for the case. Had there been an Artificial Intelligence system, with in-built translator, it would have been a game changer in breaking down the language barriers to ensure clear communication between the accused and the judicial officer.

3.3. Post-trial phase

Moving on, the post-trial in criminal cases include the sentencing of the accused persons and further procedures. The intervention of Artificial Intelligence is essential here, as it assesses the risk in the sentencing. Understanding the background and circumstances of the accused, the type of punishment to be given, or rather analysing the penology aspects of a criminal case can be made more precise and appropriate when it is assessed by AI software. Additionally, the sentencing can also be questioned. Depending on the nature of history of the accused, it can even predict the rehabilitation methodologies. Every coin has two sides. Though the AI software, so envisioned has the potential to streamline the trial phases, in both civil and criminal cases by various methods stated above, there can also be concerns revolving around it. Most of the risks involve data protection, bias, and cybersecurity [7].

3.4. Inclusion of AI and machine learning in e-courts project

The recent introduction by the Law Minister was regarding the implementation of the second phase of the already existing e-courts project, wherein the importance of adopting the AI and machine learning systems were highlighted. E-courts, the already widespread application, collects and provides the status of each case depending on the place and case number so assigned to the case. This helps the advocates, the parties involved and the legal authorities to keep track of each case. Now, by adding the machine learning and AI into it, it would increase the efficiency of judiciary by assisting the judges to conduct the trial in a better manner, by giving necessary indications of the pending cases, by listing pending steps to be taken in a long-run case, by ensuring the proper appointment of judges in the trial courts, adding up everything by which the trial process can be made smooth and swift. However, the concerns of data privacy, the challenge of maintaining the confidentiality of the case, privacy of the parties remain as a debatable question.

4. Artificial Intelligence and Evidence

The capability of AI cannot surpass that of humans but can achieve human-level performance through rapid data processing. Application of artificial intelligence into the concept of evidence gathering admission, examination and analysis may be enabler or barrier. The overarching principles and concepts in integration of artificial intelligence and evidence are unveiled. The evidence in courtrooms is classified as direct evidence, circumstantial evidence, testimonial evidence, documentary evidence, physical evidence, and digital evidence [8]. This evidence is admissible or inadmissible according to the evidentiary value and due process. AI analysed evidence and AI generated evidence has inherent limitations further navigating the parameters of conformity within the contemporary and for modern judiciary.

AI records and stores the statements and testimonials in the trial. The inputs are generally considered as hearsay evidence. The statements given by different persons are inputs in the software and separated accordingly for further investigation and due process in the trial. These inputs basically identify who made the assertion and reliability of the assertion. AI records product of automated evidence such as vehicular movement, face detection, object detection, monitoring activities through cameras, call logs or emails for further analysis. These systems produce automated evidence which can be manipulated, and technology driven AI can analyse these for testing reliability and accuracy of the evidence. This evidence is not assertions and must undergo for authentication to be admissible. AI records evidence comprise mix of human supplied input and data processed output which operates without human intervention.

In *Public Prosecutor v Ang Soon Huat* ("Ang Soon Huat"), for instance, the High Pressure Liquid Chromatograph and Gas Chromatography Mass Spectrometer outputs which were adduced to prove the weight of the trafficked drug was admitted as real evidence: by supporting such automated output with the oral testimony of the technicians who calibrated and operated the machines, the automated processes were characterised as recording, processing and calculating the information fed into them without human intervention. The Singapore High Court cited in support the English case of *R v Wood* [9] ("Wood"), where evidence of the computer analysis of the chemical tests was held to be real evidence and admissible. As in *Ang Soon Huat*, the Crown in *Wood* secured oral evidence from both the chemists and the programmer of the program used by the chemists to derive their test results. The English Court of Appeal held that the test results were real evidence. The limitations of AI were also emphasized in the case that it is merely a tool and perform calculations based on the various persons who set it up.

Digital communications: Communications through emails, text mails and social media are often generated and processed by AI algorithms and can serve as important evidence in the proceedings. In the case *R v. Jones* (2019) text messages was taken into consideration for determining the defendant's intent.

Surveillance data: Facial recognition, behaviour analysis, video footage serves as evidence in the courtrooms. In the case *Brown v. City of Metropolis* (2018) surveillance footage analysed by AI algorithms established sequence of events led to injury of the party [10].

Forensic analysis: DNA algorithms, image recognition software plays a crucial role in investigations and criminal proceedings as evidence. In the case *Gracia v. State* (2021) AI assisted forensic analysis of digital evidence was considered to convict under cybercrime [11]. The authenticity and reliability of evidence is always a complex issue being debated. AI analyse the inputs and highlight the importance of the inputs in the result to judges and juries. In present judges evaluate AI-generated evidence and determine its admissibility within the legal system [12]. Fostering technological literacy and inclusion of laws related to AI analysed and generated evidence ensure effective admissibility and deliver of speedy justice.

5. Comparative Perspective

The integration of artificial intelligence into the judicial system has started reshaping the judicial systems in countries worldwide. A comparative perspective of our country India with that of countries of Germany, USA and China helps us understand and highlight the pros and cons of introducing artificial intelligence in

the courtrooms. In India, a developing country, the courtrooms are still in its basic stage. The introduction of e-court projects has helped massively in case management and as a transparent method of making the case details open and available to the general public. However, only basic AI tools are streamlined. Might be the high costs and efforts of implementation and limited infrastructure that hinders the development of AI, but they are yet to develop. The Supreme Court Portal for Assistance in Court efficiency (SUPACE) is an initiative that improves access to justice through the technology [13]. Comparing India with other developed countries, it is important to note that the growth of these countries is at a much higher rate than India and therefore are their resources and infrastructure.

5.1. Germany

Germany's government, as part of digitalization goals introduced by the European Union, has mandated that all the documents should be electronically filed and those shall be implemented by the courts of civil, criminal social and administrative matters [14]. This would automatically hike the demand of automated solutions like artificial intelligence powered systems. One AI assistant called OLGA for this assigned work was created. With this artificial intelligence system, judges and clerks can find relevant information from various folders and files swiftly, at a high speed than when they use to do it manually. Additionally, the system also provided information, which would give a gist of the lawsuit. The algorithm in the AI assistant Olga also stored a brief history of all the cases. One other example in Germany, is when one other AI tool "Frauke" was tried and tested in Frankfurt District Courts. Annually, this district courts had about ten thousand to fifteen thousand similar type of passenger right lawsuits. The Court and the judicial authorities were tired of drafting similar types of judgments, which were more or less identical. This started to feel like a repetitive task for the judges. The newly introduced AI tool Frauke helps in extracting the relevant individual data of each case and would deliver a judgment by using the pre-written textual samples. These case studies provide real-time examples of the happenings in developed countries like Germany. Certain examples can be given of Artificial Intelligence use in the field of Intellectual property rights and copyright. The widely discussed domain of research was regarding the patentability of AI. However, regarding the copyright aspect, the algorithms could not be protected under copyright. But the manner of implementation can be protected.

5.2. USA

As the words of Chief Justice Johan Roberts of the U.S Supreme Court, artificial Intelligence represents a sort of mixed blessing in the judicial field. He also urged the "caution and humility" as the evolving transformations [15]. He mentioned an interesting instance wherein the lawyers went to the extent of citing non-existent cases, the reason for which he stated was that they were in the traps of AI hallucinations. The case was *Mata v. Avianca*, a decided in New York, where the counsel submitted the pleadings with fake citations generated by AI language models like ChatGPT. The counsels were fired and a message stating the manipulation of AI was spread across. The US laws are generally layered in three different levels namely the local level, state level and federal level. The country envisions small-time traffic tickets to be automated, but something that requires human automation cannot be given completely to the hands of artificial intelligence. U.S despite being a developed country has not explored all the facets of artificial intelligence yet.

5.3. China

The smart courts in China aim make full use of technologies such as the internet, cloud computing, big data, artificial intelligence and promote modernization of trial system and judgement capability. The process begins with electronic filing and litigants can generate e file. Information relevant to the case is automatically recognized and backfilled with intelligent applications [16]. At trial stage examination and cross examination is based on electronic files that broadcast synchronously and uniformly display materials before the trial bench and the parties. At the witness deposition synchronized transcription with speech recognition that can accurately identify and automatically unknown the speakers in the port transform spoken language into written legal language a based automated tools also been incorporated within the judicial trial process through voice recognition image classification and text processing. The automatic reason-generation framework can identify semantic embedding vectors from legal facts, sentencing circumstances, and laws/regulations, and fully mine the potential semantic information of data to ensure that the judgment reasons contain rich logical relations. The smart court system embeds a variety of safeguards to support consistency and fair process, there are continuing areas of legal concern [15].

6. Sculpting legal frameworks to accommodate AI in judiciary

As elaborately discussed in the aforementioned topics covering aspects of incorporating artificial intelligence in the judicial systems, the method of accommodating the system has to be thoroughly researched and sculpted. As the title suggests, the legal frameworks of our country should be sculpted in such a way so as to incorporate Artificial intelligence in our judicial framework. It is pertinent to note that a well-defined and drafted framework is required to accommodate it. First and foremost, analysing the traditional laws are necessary. History helps in understanding the fundamental objectives of the law and the same can be followed while considering the transcend from it to the modern law [12]. The laws should be made in accordance with the progress of the society, and it is now high time to accommodate AI in the judicial system. Firstly, covering the general rules of drafting such framework would include establishing guiding principles, ensuring transparency and human monitoring to prevent biasness and absurd decision-making. Such frameworks shall include regulations to protect data being collected, stored, and used within the judiciary.

The general framework shall also include the co-operation between government and industry wherein the government can collaborate with technology developers for developing and implementing responsible AI software. Secondly, the legislative reforms [3]. The now existing legislation either have to be amended or revised completely to accommodate the cases of Artificial Intelligence in the judiciary [16]. The evidence admissibility has to be added into the legislations regulating the evidence, the one in India being, “Bharatiya Sakshya Adhinyam” (Indian Evidence Act). Developing specific Artificial Intelligence laws, focused on the use of AI in courts might be required. This legislation shall contain the procedural importance of artificial intelligence. A codified statute would take an upper hand than the traditional following practices.

Online dispute resolutions for cases involving disputes resolved through settlements or other resolutions with AI technologies into the process can deliver speedy justice. Technology suggests resolutions according to the inputs of the parties. Countries like UK, Netherland, China, and Latvia implemented automated solutions

in online dispute resolutions. Machine learning powered smart court screens in China provides judges with recommendations on both law and regulations. Indian judiciary should work towards online dispute resolutions and inclusion of AI for initial progression of integration of AI and judiciary. The provisions under arbitration, mediation and conciliation must be widened and should comprise of the laws for inclusion of technology and artificial intelligence, to be precise.

6.1. Technological literacy

Thirdly, conducting training sessions for the judicial officers and court staff is necessary. This session should include the lessons on how to evaluate AI-generated information. This artificial intelligence software generates best outcomes, when properly utilized. The input given shall be such accurate in order to produce appropriate outcomes [16]. These proposed training sessions shall therefore train the authorities and staff on how to responsibly integrate artificial Intelligence into the judicial process. Sculpting the legal framework shall also include public awareness. Only when the subjects of these new systems and legislations are aware of it, does it ensure transparency. The usage methods and dependency shall be rightly administered.

7. Pioneering AI Paths: Insights of Jurists

CJI DY Chandrachud emphasised use of AI in judicial system. In terms of sentencing policy following conviction and acquittal under discretion of judges with inclusion of artificial intelligence cannot be allowed. Artificial Intelligence is replete with possibilities, appeal from specialised tribunals with record of 10,000 to 15000 pages judges are overburdened and it can be lessened by artificial intelligence and prepare entire record for the judges with transcriptions. The oral arguments and due process is given as output for judges and lawyers. At present judgements can be translated to languages providing for free of charge for common citizens. India is now in process of using artificial intelligence research conducted by IIT Madras is forefront for it and retired High court judges are to verify the translations before translated judgements are for access to the common people. CJ Sundaresh Menon of supreme courts of Singapore Talked about the changes by incorporation of generative artificial intelligence and importance of codes maintaining the rule of law for the progression of Technology. He suggested three aspects which necessarily require human, first empathy of judge in the various stages of adjudicative process, Second the reflection of values of our justice and third exercise of judging is an intertwined with humanity. Potential use of artificial intelligence is oppression towards the idea of AI judges replacing humans, discharging the adjudicative responsibilities by artificial intelligence will grapple the judiciary so it should not be used within the adjudicative process. Moreover, he emphasised on human should not be replaced by artificial intelligence, but it can complement the human efforts and help to ease the process.

Gasser and Susskind [17] discussed the potential use of AI and its impact in the judiciary. Their perspectives on trajectory of the use of ai potential blind spots and the important considerations to be taken by the judiciary for inclusion of artificial intelligence in the process. Artificial Intelligence in The Courtroom: Transforming Indian Judiciary for The Future book emphasises the challenges faced by the contemporary judicial system in the Indian context and it marks the cases and the inadequacies of conventional technologies in the modern expectations. The multifaceted dimensions of adoption of ai within the judiciary and the possibilities

for practical implementations and navigation through the intricate intersections of technology and legal ethics are discussed. In sum, Book guides and shed light on the dynamic interplay of traditional innovation ethics and technology. Effectiveness, exploration, and potential transformations of AI within the global legal sphere and challenges inherent with it are covered.

8. Conclusion

The developments in law through enactments and amendments can feed the solutions for issues raised on the use and integration of artificial intelligence and judiciary. The set of rules to regulate can provide clarity and guidance for inclusion of Artificial Intelligence. The increasing sophistication of AI systems and their pervasive use show no signs of abating. Likewise, courts and lawyers alike will increasingly have to contend with the issues associated with the admissibility of evidence generated and produced by AI systems. Reliability, hearsay, authentication, and disclosure issues will undergird many of the admissibility considerations of courts and lawyers, not just for legal proceedings, but also for non-contentious matters as well.

Machine evidence is proffered as evidence in a criminal trial, it must be adequately contextualized and tested for reliability. Such evidence-just like human testimony-is fallible [18]. Especially where the digital output of an opaque device, initially produced as technology for a consumer need, is accepted as a conduit of fact or circumstantial evidence, legislatures and courts must address this issue both open-mindedly and critically. Regardless of whether AI becomes a new tool to convict or acquit, we must ensure trustworthiness in the fact-finding process where machine evidence is used in criminal proceedings. In general, humans trust each other's testimony despite a great deal of evidence questioning its reliability. Assumedly, we find it convincing because we can relate to human perception and experience; in a word, we possess empathy. Machine evidence could attempt to create a similar impression and what they lack in human characteristics they make up for with purported objectivity [19]. It is not entirely clear why we humans are wired to believe the statements of our fellow human beings. Perhaps it is because we trust in the inherent goodness of people, or we assume that the fear of punishment for perjury will prevent them from lying. However, AI, as we know it today, is subject to none of these constraints [20]. These are issues which must be urgently addressed if the law is to keep up with the rapid pace of advancing technology and are best solved through mutual learning between adversarial and inquisitorial justice systems.

References

1. Kravchuk, N.V. (2021). Artificial Intelligence as a judge: Prospects and concerns. *Pravovedenie IAZH*, 1, 115-122.
2. Umnova-Konyukhova, I.A.; and ran, I. (2021). The judiciary, and Artificial Intelligence: The legal aspects of interaction. *Pravovedenie IAZH*, 1, 106-114.
3. Arias, P.C. (2020). Artificial Intelligence & Machine Learning: A model for a new judicial system? *Revista Internacional Jurídica y Empresarial (International Journal of Law and Business)*, (3), 81-91.
4. Abiodun, O.S.; and Lekan, A.J. (2020). Exploring the potentials of artificial Intelligence in the judiciary. *International Journal of Engineering Applied Sciences and Technology*, 5(8), 23-27.

5. John, A.M.; Aiswarya M.U.; and Panachakel, J.T. (2023). Ethical challenges of using artificial intelligence in judiciary. *Proceedings of the 2023 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering (MetroXRINE)*, Milano, Italy, 723-728.
6. Dafauti, B.S. (2018). E-era of jurisdiction: Empowering traditional courts using various artificial intelligence tools. *Asian Journal of Computer Science and Technology*, 7(2), 57-61.
7. Stopler, I. (2024). Automatizuotas sprendimų priėmimas teisme: dirbtinio intelekto naudojimas rengiant ir priimanant teismo sprendimus. *Teisė*, 130, 153-163.
8. Gless, S. (2019). AI in the courtroom: A comparative analysis of machine evidence in criminal trials. *Georgetown Journal of International Law*, 51(2), 195.
9. LawTeacher. (2013). *R v Wood*. Retrieved October 5, 2024, from <https://www.lawteacher.net/cases/r-v-wood.php?vref=1>
10. Brown, A. (2018). *Brown v Commissioner of Police of the Metropolis*. Royal Courts of Justice Strand, London [2018] EWHC 2471 (QB)
11. Garcia, (1985) *Garcia v. San Antonio Metropolitan Transit Authority*, 469 U.S. 528 (1985)
12. Jones, R. (2019). The role of digital communications in legal proceedings. *International Journal of Law and Technology*, 8(4), 201-215.
13. Hasan, M. (2024). Regulating artificial intelligence: A study in the comparison between South Asia and other countries. *Legal Issues in the Digital Age*, 5(1), 122-149.
14. Dafauti, B.S. (2018). E-era of jurisdiction: Empowering traditional courts using various artificial intelligence tools. *Asian Journal of Computer Science and Technology*, 7(2), 57-61.
15. Jacey, P.; and Yuniarti, S. (2022). Artificial intelligence: Implementation in legal services (comparative study on China, United States and Indonesia)' (no date). *Proceedings of the 3rd Asia Pacific International Conference on Industrial Engineering and Operations Management*, Johor Bahru, Malaysia, 2113-2121.
16. Atabekov, A. (2023). Artificial Intelligence in contemporary societies: Legal status and definition, implementation in public sector across various countries. *Social Sciences*, 12(3), 178.
17. Gasser, U.; and Susskind, R. (2024). Discussion on the impact of technology on the justice system. *Proceedings of the Inaugural Singapore-India Conference on Technology*, New Delhi, India.
18. Skurko, E.; and Ran, I. (2021). Ethics of artificial intelligence in the development of modern legal systems. *Pravovedenie IAZH*, (1), 79-89.
19. Lee, S. (2017). Authentication of AI evidence in courtrooms: Challenges and Solutions. *Journal of Artificial Intelligence and Law*, 12(1), 30-45.
20. Miller, K. (2020). *Privacy Implications of AI Surveillance Systems*. *Harvard Law Review*, 25(2), 78