International Comparative Jurisprudence

THE IMPACT OF ARTIFICIAL INTELLIGENCE ON LEGAL DECISION-MAKING

Anatolii P. Getman[1]
Yaroslav Mudryi National Law University, Ukraine
E-mail: anatolii_getman@edu-knu.com

Oleg M. Yaroshenko[2]
Yaroslav Mudryi National Law University, Ukraine
E-mail: oleg-yaroshenko@edu-knu.com

Roman V. Shapoval[3]
Yaroslav Mudryi National Law University, Ukraine
E-mail: *rvshapoval1@gmail.com*

Roman Ye. Prokopiev[4]
Yaroslav Mudryi National Law University, Ukraine
E-mail: prokopiev79@icloud.com

Maryna I. Demura[5]
Yaroslav Mudryi National Law University, Ukraine
E-mail: m.i.demura@nlu.edu.ua

Abstract. This research paper aims to explore the growing influence of artificial intelligence (AI) on legal decision-making processes. The increasing availability of AI technologies and their potential to analyse large volumes of legal data have sparked debates and raised questions regarding their role in shaping the future of the legal profession. This study investigates the implications of AI for various aspects of legal decision-making, including case analysis, the prediction of outcomes, and legal research. By employing a multidisciplinary approach that combines legal analysis, technological assessment, and ethical considerations, the research examines the benefits and challenges associated with integrating AI into the legal system. The methods employed in this study include a comprehensive review of existing literature, an analysis of case studies, and an exploration of the ethical implications of AI adoption in legal decision-making processes. The findings of this research contribute to the understanding of the potential benefits and limitations of AI in the legal field, as well as the safeguards and ethical guidelines required to ensure its responsible and effective use.

Keywords: artificial intelligence, legal decision-making, machine learning, legal research, ethical considerations.

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[1] Doctor of Law, professor at the Department of Environmental Law, Yaroslav Mudryi National Law University. Orcid 0000-0002-1987-2760.
[2] Doctor of Law, professor at the Department of Labor Law, Yaroslav Mudryi National Law University, orcid 0000-0001-9022-4726.
[3] Doctor of Law, professor at the Department of Administrative Law and Administrative Activity, Yaroslav Mudryi National Law University. Orcid 0000-0002-5716-9291.
[4] Doctor of Philosophy, post-doctoral researcher at the Department of Labor Law, Yaroslav Mudryi National Law University. Orcid 0000-0001-9981-8483.
[5] Doctor of Law, associate professor at the Department of Criminal Procedure, Yaroslav Mudryi National Law University. Orcid 0000-0002-5637-3290.

Introduction

Modern artificial intelligence (AI) is widely recognised as a powerful force capable of influencing various fields, including the legal profession. The spread and development of AI technology makes it possible to bring judicial processes to a new level of efficiency and accuracy. Analysing this impact and understanding its facets is a task before the community. One intriguing research direction is the influence of AI on legal decision-making. This aspect is so crucial that it warrants a separate section of research. By utilising AI in the decision-making process, a range of questions arises that demands our attention and analysis.

Legal systems worldwide are grappling with novel challenges and prospects arising from the integration of AI into judicial processes. Delving into specific legal cases not only facilitates a grasp of the tangible outcomes of AI utilisation, but also unveils its merits and constraints. This scrutiny enhances our comprehension of both the affirmative and adverse facets of employing AI in legal precedents.

A pivotal consideration involves the comparative exploration of how different nations incorporate AI into the realm of legal decision-making. This is because each jurisdiction is governed by distinctive legal and ethical principles that influence the adoption of such technologies. By scrutinising practices across diverse countries, one can uncover shared trends and divergent strategies, thus gleaning invaluable insights.

The aforementioned scholarly endeavour aims to probe the ramifications of AI on the process of legal decision-making. Through the examination of the application of AI in various countries, the objective is to fathom the impact of AI on judicial proceedings, the opportunities it affords, the challenges it poses, and the ethical and legal considerations inherent in its implementation. Contemporary AI continually shapes numerous domains, including the legal sector, ushering in fresh changes and objectives annually. The ever-evolving landscape of AI technologies is actively reshaping the fabric of legal judgments, demanding meticulous analysis and dedicated attention.

Addressing the profound impact of AI on legal decision-making constitutes the focal point of this investigation. The infusion of AI into judiciaries worldwide presents novel prospects and challenges. By scrutinising specific case studies and their outcomes, the tangible ramifications of this technological leap forward come to light, revealing both affirmative and adverse facets. These empirical analyses offer insights into the potentialities and confines entwined with AI adoption in adjudication.

Of particular significance is the comparative evaluation of diverse jurisdictions' approaches towards AI integration in judicial determinations. Distinct legal, ethical, and regulatory frameworks within each jurisdiction shape the deployment of AI technologies. Delving into the adoption of AI across various nations not only unearths shared patterns, but also unveils disparate strategies and invaluable insights. This endeavour is instrumental in cultivating a comprehensive panorama of AI utilisation in legal verdicts on a global scale.

The objective of this scholarly undertaking is to probe the influence of AI on legal decision-making, leveraging authentic cases spanning diverse nations. Through meticulous comparative analysis, the exploration will unearth both the possibilities and impediments linked with AI implementation. Additionally, the moral and legal dimensions that underpin AI utilisation within different legal systems will be meticulously examined.

The ascendancy of AI possesses the potential to wield substantial sway over legal decision-making mechanisms. However, this technological leap simultaneously ushers in a constellation of pivotal quandaries. Foremost among these concerns is the attribution of accountability for verdicts that wield direct sway over individual liberties and lives. The rapid data processing capabilities of AI hold promise for enhancing the precision and efficacy of legal determinations. Nevertheless, the resilience of algorithms against fallacies and predispositions necessitates meticulous scrutiny, while the indispensable role of human elements demands acknowledgment.

When considering the application of AI in legal processes, it is crucial to take ethical aspects into account. Questions of AI accountability, the preservation of social justice, and transparency come to the forefront. Many AI systems, such as neural networks, possess complex structures that complicate people's ability to understand their functions and make decisions based on them.

Confidentiality is particularly important. The use of AI in legal processes raises questions about adapting legislation to new technological realities. Ensuring data confidentiality, protecting human rights, and preserving the authorship of decisions are significant aspects. However, alongside its positive potentials, AI can also be used and abused for negative purposes, such as manipulating justice or violating human rights. This underscores the importance of effectiveness, ethics, transparency, and the legal context in the application of AI in legal decisions.

To gain a more realistic understanding of the impact of AI, researchers meticulously analyse existing cases in the practices of different countries. The United Kingdom and the United States are leaders in the development of technology and innovation, including AI. Legal practice in these countries is extensive and diverse, which creates different scenarios for the use of AI. For instance, in the United States, AI is used to analyse legal information, aiding attorneys in finding precedents and arguments. In the United Kingdom, AI assists lawyers in extracting data from legal documents for effective analysis. The solutions and technologies developed in these countries often have an international impact, which is why the analysis of these countries in the context of the use of AI in legal practice is important.

This scientific work aims to achieve a deep analysis of the impact of AI on legal decision-making. Its goal is to reveal the advantages and challenges associated with this technology, study crucial ethical aspects, and foster active discussions about the optimal use of AI in judicial processes. By examining real cases from various countries, researchers can attain a profound understanding of the real impact of AI on legal decision-making and identify key factors for the successful integration of this technology.

This research employs a comprehensive and multidisciplinary methodological framework to study the impact of AI on legal decision-making processes. This framework integrates legal analysis, technological assessment, and ethical considerations to provide a holistic understanding of the subject.

The study encompasses an analysis of cases that have occurred in the practices of various countries. Investigating specific examples of AI usage in legal decision-making processes offers valuable insights into its practical implications, including challenges and potential outcomes. Through such cases, a comparative analysis of different jurisdictions can be conducted, accounting for their legal frameworks and approaches.

In this research, legal analysis plays a significant role in revealing legal consequences and regulatory aspects of AI utilisation in legal decision-making. This involves scrutinising laws, regulations, and ethical principles across different jurisdictions. This approach helps identify legal aspects, research gaps, and potential directions for further refinement. Additionally, an evaluation of the technological capabilities and limitations of AI in legal decision-making is undertaken. Various methodologies, algorithms, and AI tools are examined, including machine learning, natural language processing, and predictive analysis. This assessment aims to ascertain potential benefits and challenges associated with AI implementation.

Furthermore, ethical aspects of AI usage in legal decision-making are explored. Consequences, in terms of fairness, transparency, accountability, and bias, are analysed. Ethical dilemmas linked to AI application are investigated, and ethical principles and recommendations for responsible implementation are considered. This research approach is geared towards achieving a profound understanding of the impact of AI on legal decision-making processes. It amalgamates legal analysis, technological assessment, and ethical considerations to offer insights into advantages, challenges, and necessary steps for the successful integration of AI into the realm of legal practice.

1. The examination of the influence of AI on the process of legal decision-making

The examination of the influence of AI on the process of legal decision-making represents a vibrant and extensively debated topic within the realm of jurisprudence. AI encompasses a diverse array of technologies and algorithms capable of efficiently parsing substantial volumes of legal information, executing automated tasks, and, in specific scenarios, even making determinations.

A pivotal avenue of AI utilisation in the legal sphere lies in decision support systems. These systems meticulously scrutinise judicial practices, legislative enactments, precedents, and other repositories of legal data to furnish counsel and judges with recommendations. Moreover, they can facilitate the identification of analogous cases, the evaluation of risks, and, notably, the prognostication of judicial verdicts.

The merits inherent in employing AI during legal decision-making encompass:
- Efficiency and celerity –
  AI expeditiously processes copious amounts of legal data and tenders recommendations promptly, thereby expediting decision-making processes and optimising resource allocation;
- Objectivity –
  AI is rooted in data analysis and logical algorithms, thus fostering a more impartial decision-making process that remains insulated from emotional or subjective variables;
- Error mitigation –
  The implementation of AI mitigates the likelihood of human error, particularly in intricate analytical undertakings demanding precision and exacting attention to minutiae;
- Enhanced access to judicial redress –
  The incorporation of AI serves to curtail the expenses associated with legal services while concurrently broadening the spectrum of individuals with access to legal aid (Boucher, 2020).

Nevertheless, it is imperative to contemplate whether the employment of automated AI may engender inquiries concerning the attribution of responsibility for rendered determinations. This quandary is particularly salient in scenarios wherein AI exerts an influence on individuals' lives, such as adjudicating criminal penalties or conferring refugee status.

The necessity of carefully considering potential risks and challenges associated with the utilisation of AI in legal decision-making comes to the forefront. There exists a risk of erroneous or unjust conclusions stemming from the programmatic nature of AI, which relies on algorithms and statistical data analysis. During the streamlining of routine tasks, such a system may also exhibit algorithmic deficiencies or biases, leading to unfair consequences (Scherer, 2019).

Specifically, the issue of social justice becomes exceptionally pertinent in the context of AI deployment in legal decisions. Often, AI systems are grounded in data that could be improperly collected or bear discriminatory traits. Consequently, this could result in inequalities and injustices in decision outcomes.

In order to ensure the responsible and equitable usage of AI in the legal decision-making process, additional mechanisms and control procedures are imperative. The development of standards and norms mandating algorithmic transparency, the elucidation of decisions made, and the detection of possible data distortions are key aspects. Notably, the fact that the discourse on resolving these matters is currently evolving holds significant promise in rectifying identified shortcomings (Amelin, 2021).

Furthermore, particular attention should be devoted to matters of legal accountability for companies and organisations involved in the development and deployment of AI systems. This could incentivise the cultivation of ethical approaches and adherence to fairness principles in the creation and implementation of such technologies (Proposal for a Regulation, 2021).

Considering all of these aspects, it becomes obvious that the use of AI in legal decision-making requires a comprehensive approach and cooperation between specialists from different fields. This will help ensure efficiency, ethics and fairness in the process.

A pivotal concern revolves around the transparency and interpretability of AI algorithms, especially within legal contexts. This complexity is notably prominent in intricate models such as neural networks, which are known for their remarkable accuracy yet baffling solution explanations (LawGeex, 2018).

Neural networks, inspired by biological neural systems, are proficient machine learning tools. Their adeptness at autonomous learning from extensive data enables them to tackle various tasks, such as object classification, result prediction, and text generation. Nevertheless, their internal mechanisms often remain inscrutable to human understanding.

This intricacy poses significant challenges, particularly in legal proceedings, where elucidating and justifying AI-driven decisions holds paramount importance. Imagine, for instance, an algorithm endorsing a specific legal strategy; attorneys and judges may rightfully seek a lucid grasp of how that verdict was reached to ensure its validity and equity (Curle & Obenski, 2020; Yeung & Lodge, 2019).

Elevating the transparency and interpretability of AI in judicial processes should primarily align with the requisites and entitlements of the individuals impacted by these determinations. This concern transcends mere technicalities; it is deeply rooted in the bedrock of trust. The cloud of uncertainty enveloping decision-making procedures can erode this trust and lead to misconstrued perceptions from those within the legal ecosystem (Michurin, 2020).

Across the globe, numerous nations have enacted legislation mandating explications for decisions made by AI systems, particularly in domains encompassing human rights and liberties. This underscores an inherent urgency for crafting methodologies adept not only at discerning, but also elucidating the intricate mechanics underlying complex models such as neural networks and similar algorithms (Gazeta Sądowa, 2023).

The gradual advancement of these methods can contribute to preserving trust in AI not only in judicial processes, but also in various other critical domains. Nevertheless, despite numerous accomplishments, confidentiality remains one of the most crucial issues in the use of AI (The European Judicial Network (EJN) in Civil and Commercial Matters, 2022).

Growing technological progress, especially in the context of social media, amplifies the necessity of maintaining confidentiality. The increase in the volume of personal data that AI systems can collect and process necessitates robust protection against unauthorised access and usage. Safeguarding confidentiality is not just a technical task; it is a fundamental undertaking in order to uphold users' rights and freedoms.

Hence, it is essential to direct legal attention to the confidentiality of personal data when utilising AI, not just technical considerations. The development of algorithms that ensure data security and confidentiality should meet elevated requirements and standards to ensure the reliability of these systems in all aspects of their application.

In the field of law, practitioners sometimes have to deal with confidential documents, data from criminal cases, and legal advice, and it is important that any AI used to this end guarantees privacy and prevents unauthorised access.

Encryption is an effective data protection tool that ensures secure exchange between systems and prevents unauthorised access. It is important to create reliable mechanisms for encrypting data processed by AI.

Controlling access to information is a key aspect of ensuring privacy. AI should regulate access to data based on users' roles and rights. For example, not all employees should have access to all data, but only those for whom it is necessary for the performance of their duties.

To avoid the inadvertent leakage of confidential information, it is important to delete data from the system after the processing of the data is complete or after the purposes of its use have been achieved. Ensuring data privacy is of great importance in the development and use of AI in the field of law. Effective privacy measures help establish trust in AI systems and preserve individual rights and freedoms during automated decision-making (Prohaska, 2022).

That is why the use of AI in jurisprudence is an urgent direction that is rapidly developing and gaining recognition and interest at the international level. Different countries around the world are studying and implementing AI in judicial processes.

2. Global experiences of introducing AI into court processes

Several countries around the world are actively introducing AI into court proceedings, trying to improve the efficiency, accessibility and fairness of justice. The countries leading in the use of AI in court proceedings have the potential to change the traditional approach to justice by introducing innovations that can improve the quality and speed of decision-making. The United States, Canada and the United Kingdom are distinguished not only by their high levels of technological development, but also by their ambitious strategies for introducing AI into the judicial system. These countries are interesting for the analysis of judicial systems and the direct use of AI in litigation.

Therefore, existing cases of the use of AI in legal practice in these countries are analysed. AI has already become an integral part of legal practice in the United States, bringing innovation and improvement to various aspects of the legal field. The introduction of AI into legal practice in the United States allows the country to increase the efficiency of court proceedings, reduce costs and ensure faster and more accurate decision-making.

Companies such as *IBM Watson*, *COMPAS*, *eDiscovery*, *ROSS Intelligence* and *LegalZoom* provide decision support systems that use AI to analyse large amounts of legal data and provide advice to lawyers in the United States. Such systems help lawyers to quickly search for information, identify legal precedents and provide legal advice.

IBM Watson's capability to analyse vast amounts of data and perform rapid information retrieval has assisted lawyers in making well-founded decisions. The essence of one case revolved around the utilisation of the IBM Watson system to support lawyers in searching for precedents, court judgments, and recommendations related to alimony distribution. This had significant implications given the substantial volume of court rulings and legal documents concerning alimony, which could prove challenging for lawyers to study and analyse (IBM, n.d.).

Leveraging IBM Watson, lawyers could promptly locate relevant precedents and decisions crucial to the specific case. This enabled them to bolster their arguments based on past court judgments and obtain recommendations regarding the most likely alimony distribution (IBM, 2021). The approach involving IBM Watson offered numerous advantages. Notably, the system effectively analysed extensive data and swiftly located essential information. This approach also contributed to achieving more objective outcomes in alimony distribution cases, considering prior decisions and precedents (Awati & Burns, 2023).

It is worth noting that this case raised a series of ethical questions and necessitated the establishment of appropriate legal norms. Specifically, addressing the preservation of the confidentiality of personal data and ensuring its protection during the application of AI in legal processes was essential. This case illustrates the possibilities of applying AI, such as IBM Watson, in legal proceedings to enhance analysis and legal decision-making. However, the use of AI in judicial matters demands careful consideration of

ethical aspects and the development of adequate legal frameworks to ensure responsible and appropriate utilisation.

With the help of AI, Correctional Offender Management Profiling for Alternative Sanctions (COMPAS) managed to implement a system for predicting the risk of recidivism in the field of American justice. **COMPAS** is a comprehensive algorithm that determines a person's likelihood of reoffending after conviction.

This innovative technology has found use in the United States in the field of criminal cases, where it provides an assessment of the likelihood of recidivism and the selection of optimal alternative sanctions or supervision of convicts. The system analyses a variety of indicators, including criminal history, social status and other factors, to provide a forecast of possible repeat offending (State of Wisconsin Department of Corrections, n.d.).

However, the use of the COMPAS system in trials in the United States has given rise to a number of ethical and fairness debates. Some critics emphasise the possibility of systemic biases and inequalities in the determination of risk depending on the racial or social characteristics of the individuals who have become the object of the assessment (Northpointe, 2015).

This situation emphasises the importance of careful analysis and control of AI algorithms implemented in the legal field. This is important in order to guarantee fairness, avoid discrimination and protect human rights.

EDiscovery has proven its usefulness in the processing of electronic evidence in legal proceedings in the United States. The process of eDiscovery means the discovery, collection, analysis and processing of electronic evidence such as emails, documents, files and other electronic data that have legal weight.

In the United States, the eDiscovery system plays a crucial role in streamlining and enhancing court procedures by effectively managing vast amounts of electronic evidence. Powered by AI and machine learning, this system exhibits the ability to automatically identify and categorise documents, emphasise key terms, conduct information searches, apply filters, and generate comprehensive analytical reports along with evidence-backed recommendations.

The incorporation of eDiscovery within the framework of US litigation carries immense potential for diminishing the amount of manual labour and time traditionally involved in handling electronic evidence (Yaroshenko, Lutsenko et al., 2023). Moreover, it fosters precision and uniformity in evidence management, thereby expediting the retrieval of essential information for case parties and facilitating efficient preparation for courtroom proceedings (Bougnague, 2023).

This instance serves as a prominent illustration of how AI has been integrated into the American legal landscape to enhance the treatment of electronic evidence. The utilisation of eDiscovery not only enhances the efficacy and impartiality of court proceedings, but also necessitates the meticulous consideration of ethical and confidentiality considerations related to the acquisition, processing, and utilisation of electronic evidence within US legal scenarios (Conrad, 2010).

The escalating impact of AI on decision-making processes within the legal domain in the United States is increasingly conspicuous, precipitating a transformation in the very essence of the legal sector. The revolutionary influence of AI in legal practice is marked by its capability to automate mundane tasks, undertake thorough document analysis, probe into legal precedents, and even draft documents. As a result, legal professionals are unburdened from tedious routines, enabling the judicious allocation of resources and substantial time savings.

The use of data analysis and machine learning makes it possible to predict the possible outcomes of court cases. Lawyers and judges can now better understand previous decisions and analyse statistics to

make informed predictions about outcomes. This approach contributes to more objective and more broadly accepted decisions.

AI also improves access to legal information by quickly and accurately analysing case law, laws and precedents. It provides lawyers with relevant and important information that contributes to their high competence.

The growing influence of AI also brings with it risks and ethical issues. There is a risk that algorithms may be subject to hidden influences that may cause unwanted bias in decisions, or even discrimination. This is a significant problem and is why AI is only assisting human lawyers thus far.

The use of AI in the legal field requires highly qualified specialists who understand exactly how these systems work. Knowledge of technology and law becomes key to the effective use of these tools.

In general, the impact of AI on legal decision-making in the United States is already enormous. This technology opens up new opportunities for increasing productivity and the validity of decisions (Vishnya, 2021).

In the field of jurisprudence, Canada actively uses AI. It can be observed that today there is a revolution in court processes with the help of AI in Canada.

The field of law and jurisprudence is undergoing a significant phase of transformation thanks to the introduction of AI in judicial processes in Canada. These artificial systems are achieving significant changes in many aspects of legal practice and procedures (Rissland et al, 2003).

Expert analysis and verification of documents is one of the key areas where AI has been able to significantly simplify and speed up processes. Deep machine learning algorithms have made it possible to sift through and select the most important documents from a large volume, which has become an important advantage during court proceedings.

Predictive analytics is another extremely useful area of the application of AI. Based on historical data and court practice, AI is able to predict options for the development of court cases. Such analysis helps lawyers strategise and prepare for various possible scenarios.

Another important aspect is the analysis and review of contracts. AI-powered tools identify terms, clauses and potential issues in contracts, making the review process more efficient and helping to avoid potential risks.

The use of AI in mergers and the enlarging of companies has a great impact. Thanks to this, the identification of legal risks and inconsistencies in the documentation has become fast and effective (Yaroshenko, Chanysheva et al., 2023).

AI-powered chatbots and virtual assistants are also an incredible tool for improving customer communication and providing prompt responses to legal inquiries.

The successful implementation of AI also brings ethical and regulatory issues to the fore. The use of algorithms in legal decision-making raises questions about transparency, accountability, and bias. Canadian lawyers and regulators are actively researching these aspects to ensure the responsible and ethical use of these technologies.

Blue **J Legal** (https://www.bluej.com) has an AI system that helps lawyers conduct legal research, analyse legislation and precedents, and predict court outcomes.

Blue J Legal specialises in using AI to analyse legal cases and predict court decisions. It primarily operates in the domain of tax law, where it provides tools for lawyers and tax advisors.

Among the products of Blue J Legal is, for example, the Tax Foresight system, which allows specialists to analyse tax cases and obtain forecasts of court decisions. Thanks to AI and data analysis, the system can estimate the probability of obtaining a positive decision or identify possible risks (Blue J, n.d.).

Blue J Legal's case analysis process includes gathering the facts of a tax case and analysing them in the context of relevant legislation, precedents and court decisions. Based on this analysis, the system provides a forecast regarding the possible decision and approach of the court to the tax case.

Evaluating a potential judgment and analysing the case helps lawyers and tax consultants understand the possible consequences and make informed decisions. This contributes to the reduction of uncertainty and risks in tax planning, providing an additional level of awareness regarding court decisions in the tax field (Alarie et al., 2023).

However, it is important to note that Blue J Legal's case analysis is based on available legal information and the methodology used by the company. The actual outcome of the trial may depend significantly on the specific circumstances of each case and other factors that may influence the court's decision.

Another important area of the application of AI is UK jurisprudence, where it helps to solve legal problems and set new legal precedents. One of the key components of the legal system is the system of precedents, built on the concept of age and authority. According to this principle, decisions made by courts in similar cases in the past have legal weight and become the basis for solving new legal issues.

Significant authority in this system rests with the Supreme Court of the United Kingdom, which makes decisions for the entire country. The concept of a case becomes vital for the interpretation of legislation and the resolution of issues that do not have a clear legislative solution. Courts analyse such cases, study previous decisions and apply them to support their arguments. This approach is aimed at forming and strengthening legal precedents that dictate future decisions in similar cases.

The role of cases in jurisprudence is important for ensuring the stability and predictability of the legal system, as well as for the precise and repeated interpretation of laws. They contribute to maintaining the consistency of decisions and preventing deviations from established norms.

It is worth noting that the system of precedents is constantly evolving. Courts have the ability to review previous decisions and change legal precedents, adapting them to changes in society, values and needs. At the same time, the use of AI in UK jurisprudence continues to develop actively. This process is dynamic, and AI technologies are constantly evolving. Professionals implement these technologies to improve the efficiency, accuracy and affordability of legal services. This approach allows for the more efficient use of resources and ensures the high-quality operation of the legal system.

Some courts in the UK are aiming to explore the possibilities of using AI to optimise administrative tasks and manage cases. This includes the use of AI-based case management systems that address scheduling, document management and other routine processes.

Legal professionals and firms are increasingly interested in using AI to analyse legal strategies and predict case outcomes. This leads to the creation of predictive analytics tools that rely on historical data and legal precedents to predict possible outcomes.

The use of AI for document review and e-search is becoming a standard in the legal field, helping to efficiently review large volumes of information and find required data faster.

Research platforms based on AI have been introduced, which facilitate the quick search of relevant cases, statutes and legal articles. These platforms use natural language processing to understand queries and provide accurate results.

Despite the numerous advantages of using AI in the legal decision-making process, which concerns not only the UK but also other countries, there are challenges associated with its implementation. AI algorithms can harbour biases that are present in training data, which can influence legal decisions. Ensuring fairness and minimising bias in the use of AI algorithms for legal decision-making is an important task.

Many AI algorithms work under biases, making it difficult to understand the decision-making process. This may raise concerns about transparency and the ability to challenge decisions. The use of AI in legal decision-making raises ethical questions regarding the level of human involvement, responsibility for mistakes, and the possibility of automation, which may affect the role of lawyers (Bell et al., 2022).

As AI becomes an integral part of legal processes, it is important to establish clear norms for its responsible and ethical use. The accuracy and reliability of AI in the legal context remain issues of concern. Even small errors in recommendations or predictions made by AI can have serious consequences.

There are a number of systems in the UK that use AI to improve legal work. One example is **Kira Systems** (https://kirasystems.com), which specialises in legal document analysis. Thanks to the use of AI methods, especially machine learning, Kira Systems is able to automatically analyse and extract key information from texts.

The use of Kira Systems in UK legal practice allows lawyers and paralegals to efficiently process a large volume of various legal documents such as contracts, agreements, judgments, etc. The system is able to identify and highlight key details such as articles, deadlines, dates, party names and other important information, which simplifies the process of analysis and extraction of the necessary information.

Using Kira Systems in legal practice helps achieve several important benefits. First, it increases the speed and accuracy of document analysis, helping lawyers to do their jobs more efficiently. Secondly, it reduces the risk of losing important information and mistakes that can affect the outcome of cases. In addition, the system can be used to create automatic reports, review documents and accomplish other routine tasks, which facilitates the routine work of lawyers.

However, the use of AI in the legal field also creates problems. It is necessary to address the issues of accuracy and reliability of the results, as well as guarantee the confidentiality of information and compliance with ethical standards.

The use of Kira Systems in the legal practice of the UK is an important step in the direction of improving the processes of the analysis and extraction of data with the help of AI.

The **ROSS Intelligence** (https://rossintelligence.com) AI system has proven its usefulness in pretrial investigation in the field of jurisprudence. ROSS Intelligence offers an innovative approach based on large volumes of textual information to analyse legal issues and provide professional legal advice.

In UK, the ROSS Intelligence system is used to support lawyers and advocates during pre-trial investigations. Thanks to its ability to quickly analyse large volumes of legal documents, court decisions, laws and other legal sources, the system ensures the speed of the search for relevant information, legal precedents and arguments important for a specific case.

The use of the ROSS Intelligence system in pretrial investigations brings many benefits. This helps lawyers efficiently gather the necessary information and legal basis to prepare for trial. It also ensures the accuracy and speed of the analysis of legal issues that may affect the outcome of a case (Houlihan, 2017).

However, the use of AI in pretrial investigation requires careful consideration of ethical issues, ensuring the confidentiality and protection of personal data, as well as taking into account possible errors or system limitations.

The use of the ROSS Intelligence system highlights the importance of AI in pretrial investigations and legal support. However, to ensure the responsible and effective use of AI in the field of law, appropriate regulatory standards and codes of ethics need to be developed.

The **Predictice** system (https://predictice.com) is one of the most popular platforms for predicting court decisions. Designed to analyse large volumes of court documents, this platform uses machine learning algorithms to help lawyers understand potential court rulings.

The UK uses the Predictice system to support lawyers' strategic decisions during legal proceedings. Based on data analysis, the platform takes into account various factors such as previous precedents, case characteristics, and information about judges to predict possible court sentences. With this data, Predictice provides case-specific predictions.

The use of the Predictice system significantly improves lawyers' understanding of possible court decisions, which in turn affects the defence strategy and positions taken during court proceedings. The platform helps to make informed decisions, taking into account the analysis of judicial trends and previous decisions.

However, the use of Predictice to predict court decisions may face the problem of insufficient accuracy and reliability of the results. Even with a large amount of data, algorithms may not take into account complex cases that previously had no similar precedents. In addition, the ethical aspect of using AI to predict court decisions is of great importance. Court decisions affect people's lives, and decisions based on predictions can significantly affect their fate. Therefore, it is very important to maintain high standards of ethics and reliability when using such systems.

Given these potential challenges, care must be exercised when using AI to ensure appropriate levels of effectiveness, scrutiny, and ethical compliance in all legal processes. These cases are just a few examples of how AI is being used in different legal systems. These examples show the potential of AI, but it will take time and incredible effort to convince everyone of the benefits of AI. Thus, for the time being, AI can be implemented when it comes to performing everyday tasks, but no matter how much information it contains, it cannot decide the fate of human beings. For now, there are too many disadvantages and too few advantages. These facets of AI represent incredible things for lawyers, but not yet for people generally.

3. The practical application of AI in legal scenarios

The impact of AI on legal decision-making has several advantages and disadvantages, and should be treated with caution and carefully analysed. True success lies in maintaining a balance between the technological capabilities of AI and the values of protection and regulation by the legal system.

The practical application of AI in legal scenarios is considered in various aspects, from analysing documents to supporting decision-making by judges. When using machine learning algorithms for automated processing and analysis of a large volume of legal documents, such as contracts, claims and other legal materials, there is a reduction in the documents' processing time, increasing accuracy and the ability to identify key aspects. Forecasting the results of cases reduces the time spent on the preliminary analysis of cases, and can act as impartial method of support for judges and lawyers in making justified decisions.

Another practical application of AI in legal scenarios is the introduction of electronic systems for managing trials, including electronic filing, online access to information and virtual court hearings. In the case of the electronic implementation system, there is a decrease in paper circulation, which in turn

not only reduces the bureaucratic aspect of the judiciary, but also positively affects globalisation aspects in the context of environmental care.

The use of facial recognition technologies and biometric data to identify persons involved in court proceedings will ensure the safety and accuracy of the identification of participants in court hearings. Using AI for the automated search and analysis of legal information, including precedents, regulations and court decisions, will help to increase the effectiveness of legal research and ensure accurate and complete information.

Case studies that illustrate the practical application of AI in legal scenarios include, but are not limited to, such aspects as research effectiveness, analysis of legal documents, ethical aspects, and impact on access to justice. They help form an understanding and resolve issues related to the use of AI technologies in the legal field. The following case studies are highly influential in this regard:

• An analysis of the impact of AI on legal research, focusing on the effectiveness of searching for legal information and using algorithms to analyse precedents (Paul, 2023; Sopilko, 2022);
• A consideration of the use of AI for automated analysis and the review of legal documents, including contracts and other legal materials (Kaveti, 2023; Cherniavskyi et al., 2019);
• An analysis of the impact of AI on law enforcement practices, including the identification of risks and ethical aspects of using algorithms to predict crimes (Kabir & Alam, 2023; Derevyanko et al., 2023);
• A consideration of ethical issues related to the use of AI in litigation, with a focus on decision-making by judges (Patel, 2023);
• An exploration of how AI can improve accessibility and equality in justice, particularly through virtual assistants and online systems (Osiejewicz, 2017).

The practices used in these case studies demonstrate how AI influences legal scenarios by simplifying routine tasks, increasing the accuracy and speed of decision-making in the judicial system.

Conclusions

The findings of this study shed more light on the potential benefits and limitations of applying AI in law, as well as providing important steps to ensure its safety and ethics for responsible and effective use. The following specific benefits that AI can bring to the legal field are highlighted: increased speed, flawless accuracy, and efficiency in solving legal problems. It is also possible to emphasise the analytical potential of AI and its ability to predict based on the processing of huge volumes of legal data, providing meaningful information and predictions.

The modern world is working extremely actively on this topic, as every year new AI platforms, regulations and technologies are being created (Yaroshenko, Shapoval et al., 2023). Countries interact, compete and cooperate, creating a dynamic environment, and development takes place not only in the field of AI, but also in the legal field, which leads to the mutual influence of both.

Ensuring the responsible and effective use of AI in the legal context requires important safeguards. This article emphasises the need to implement measures to preserve the confidentiality of legal information and ensure the transparency and comprehensibility of AI algorithms. In addition, it emphasises the importance of continuous monitoring and accountability in order to identify and eliminate possible errors or biases.

From the above cases, it is clear that AI is becoming an increasingly actively used tool in the legal field around the world. Countries such as the United States, Canada, and the United Kingdom are actively exploring and implementing AI to improve various aspects of legal work, but this is all formulaic and needs to be double-checked by stringent compliance mechanisms.

Conducting an analysis of AI utilisation in various countries within the legal domain yields a clear conclusion: AI has not yet reached full development for extensive use in the legal field. Several nuances have been identified that overshadow the positive aspects of this technology.

A wealth of research highlights ethical issues associated with AI application. The implementation of automated systems can undermine public trust in decision-making and raise questions about accountability for AI actions. Addressing ethical dilemmas arising in the context of automated legal decision-making thus becomes a pivotal aspect. The research findings in this paper underscore the significance of the transparency and interpretability of decisions made by AI. Clarity in the logic and motives behind these decisions is critically important in order to establish trust in automated systems within a legal context.

The conclusions presented in this study aid in recognising the potential advantages and limitations of applying AI in jurisprudence. The successful integration of AI into the legal system requires considering not only technological solutions, but also the legal context and ethical principles. Additionally, ensuring an adequate level of security is crucial. This will enable AI to become a valuable tool for enhancing legal decision-making processes, provided proper control mechanisms are implemented.

Furthermore, a salient point underscored in this research highlights the necessity of ongoing vigilance and adaptation in the utilisation of AI technologies within judicial proceedings. Given the rapid pace of technological advancement, the legal system must remain agile in order to embrace novel prospects and surmount emerging challenges. The evolving roles and responsibilities of legal professionals, including lawyers, judges, and advocates, necessitate thoughtful consideration and resolution as AI is integrated into the judicial framework.

Moreover, a pivotal factor in the fruitful adoption of AI in the legal sector is a nuanced grasp of effective data utilisation. The acquisition, safekeeping, and safeguarding of legal data warrant special attention, as they serve as the bedrock for sound and well-informed decisions. Mitigating data misinterpretation and misuse is equally paramount in fostering trust in AI within the legal realm.

It is crucial to highlight that the involvement of AI in legal determinations should complement rather than supplant human expertise, serving as a robust complementary tool to enhance the quality and efficiency of the relevant processes. This synergy between human experts and intelligent systems holds the promise of more informed and rational decision-making.

In summary, the outcomes of this study unveil promising potential for the integration of AI into judicial proceedings, while simultaneously underscoring the need for the meticulous contemplation of ethical, legal, and security issues. These considerations are pivotal in nurturing the conscientious and efficacious employment of this technology. The study thus charts a path for the future exploration and pragmatic application of AI within the legal sphere, thereby contributing to increasing fairness, accessibility, and efficiency within the legal system.

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