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Artificial Intelligence-Assisted Judicial Decision Support Systems and Their Impact on Due Process and Access to Justice

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Abstract

Artificial Intelligence (AI) has become one of the most profound changes in the 21st century in the administration of justice. These judicial decision support systems, with their AI-driven capabilities, hold the potential to improve judicial efficiency, consistency, and access to justice. These technologies, however, raise the deepest concerns of due process, judicial autonomy, equality before the law, and public confidence in the judiciary. The article is a complete doctrinal/comparative analysis of AI-assisted judicial decision support systems and their effects on due process/access to justice. The article explores the dangers of algorithmic bias, opacity, AI hallucination and the reduction of judicial discretion to fundamental rights, based on international standards, such as the UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals (2025), the Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (2024) and the European Union AI Act (Regulation (EU) 2024/1689). The article provides a comparative analysis of jurisdictions such as the United States, China, the European Union, Brazil, India and Pakistan, and identifies challenges that are common to these jurisdictions and regulatory responses that are emerging. This article suggests a constitutional approach to AI-assisted justice that combines the Erkan Constitutional Algorithmic Safeguard Model (ECASM) and international human rights laws and provides recommendations for policy makers, courts, and technolovers. The article argues that AI can be used to augment, but not replace, human judgment in judicial decision-making and that the legitimacy of AI-powered justice relies on the strict principle of due process, transparency, accountability and meaningful human oversight.

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1. Introduction

The law and the administration of justice is one of the essential features of democratic rule and is a vital subject of public debate, serving to keep disputes settled fairly, laws equally applied and fundamental rights safeguarded. However, the challenges that judicial systems are now facing are unprecedented, from backlogged caseloads, delays, rising costs, and limited access

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for disadvantaged groups. At the other end of the coin, courts and judicial institutions are increasingly using AI to improve efficiency, consistency and accessibility (Sargeant, 2026; UNDP, 2026).

AI's impact on the legal profession has grown significantly over the past few years. According to a 2024 UNESCO survey, 44 per cent of judicial professionals in the field have already used AI tools in their work, while 9 per cent have been trained formally in AI ethics, bias or oversight (UNDP, 2026). In the UK, 45 AI tools are currently being used or developed in civil and/or family justice, with only seven of those having publicly available evaluation (Sargeant, 2026). AI-based case handling systems have been introduced in courts of all levels in China and integrated into the daily judicial process (Science Direct, 2026). Brazil has implemented AI systems that prioritize cases, draft judicial opinions, and even propose decisions to address a backlog of more than 100 million cases (Pusic, 2026). In this context, AI is being deployed at a pace that outpaces the pace of its adoption by judicial systems around the world, and the systems put in place to regulate it (UNDP, 2026).

This swift uptake of AI raises critical issues about the alignment of AI-driven judicial decision-making with the principles of ‘due process' and ‘fair trial' and ‘access to justice'. Opaque AI systems negatively impact due process rights and effective remedies (OHCHR, 2025). Algorithmic bias is a threat to equal justice under the law. The "black box" issue erodes the right to a reasoned decision and litigants' capacity to challenge the decisions. NLP-driven AI hallucination (generation of fake case citations, statutory references, and legal authorities) has already led to judicial sanctions and jeopardizes the integrity of legal proceedings (Williams, 2026; Charlotin, 2025).

While these are important concerns, AI also has the power to transform access to justice. Use of AI tools such as legal chatbots, automated document creation, predictive analytics in case management, and online dispute resolution can save costs, streamline processes, and enable access to legal information for populations who have been traditionally under-represented in the justice system (Patel, 2026; NITI Aayog, 2021). The difficulty is in using these advantages without infringeing the constitutional and human rights principles that underlie a legitimate adjudication.

This article aims to explore, in detail, the doctrinal and practical implications of AI-driven judicial decision support systems and their effect on due process and access to justice. It's organized into six sections. Part 2 lays out the concept of AI-assisted judicial decision support and clarifies the difference between AI-assisted and full automation of judicial decisions. Part 3, explores the potential of AI in the judiciary, such as efficiency, consistency and better access to justice. Part 4, explores the dangers, including algorithmic biases, opacity, the black box problem, AI hallucination and the loss of judicial discretion. Part 5, focuses on international standards and governance frameworks, such as the UNESCO Guidelines, the Council of Europe Framework Convention and the EU AI Act. Part 6, conducts a comparative jurisdictional analysis of AI deployment in the United States, China, the European Union, Brazil and India. In Part 7, the author suggests a constitutional model for AI-assisted justice, based on the Erkan Constitutional Algorithmic Safeguard Model (ECASM), in line with international human rights principles, and provides practical recommendations. The authors also conclude that while AI could provide assistance, it cannot replace human reasoning in making judgments, and that the legitimacy of AI-assisted justice hinges on the strict observance of due process, transparency, accountability, and meaningful human oversight.

2. Conceptual Framework: Defining AI-Assisted Judicial Decision Support

2.1 Artificial Intelligence in the Judicial Context

Artificial intelligence, for the purpose of supporting judicial decision-making, means a machine-based system that, for a given set of objectives, can infer, for the explicit purpose or implicit, how to produce an output, such as a prediction, content, a recommendation or a decision, which may have an impact on judicial processes (Council of Europe, 2024; Regulation (EU) 2024/1689). From automated transcription and document management to predictive analytics, risk assessment, and sentencing recommendations, the definition covers a broad spectrum of applications.

Most importantly, AI support to judges in decision making needs to be separated from automated adjudication. The former are systems that give recommendations, analysis or information to judicial decision makers without replacing them in making the actual decision. The latter would be AI systems making decisions with little to no human input. The use of AI in the judicial sphere must be "assistive," not "substitutive," as UNESCO (2025) has pointed out. This separation is not just a mere semantic one, but it is also a fundamental issue of constitutional validity of AI deployment in legal systems (Erkan, 2026; Sharma et al., 2026).

2.2 Typology of AI Applications in Judicial Systems

There are two types of application of AI that can be distinguished on a scale between ancillary and impactful tasks (Science Direct, 2026): The ancillary end features administrative and informational tasks such as automated transcription, document processing, case scheduling, and legal research support. These applications are less controversial, because they affect neither substantive decision making in courts nor public perception of the justice system.

At the driving force end are systems that support decision making in areas of key judicial work, such as risk assessment for bail and sentencing, prediction of case outcomes, analysis of evidence, and the writing of judicial opinions. Such applications are most concerning with regard to due process issues because they can affect or replace judicial reasoning (Erkan, 2026; Sharma et al., 2026). Under the new EU AI Act (Regulation (EU) 2024/1689, Recital 61), judicial authorities, or on their behalf, AI systems used in research and interpretation of facts and the law and to apply the law to a concrete set of facts are classified as high-risk systems. This classification is based upon the fact that AI systems that play a role in judicial decision-making are of great risk to fundamental rights and the rule of law.

2.3 Due Process and Access to Justice: Normative Foundations

The term “due process” in the context of judicial decision-making is a set of procedural protections: fair and public trial; opportunity to be heard; independent and impartial tribunal; reasoned judgment; and effective remedy (European Convention on Human Rights, Article 6; International Covenant on Civil and Political Rights, Article 14). These assurances are more than just formalities; they are crucial for the legality of judicial decision-making and the public's faith in the judiciary system (Erkan, 2026).

Access to justice not only implies access to courts, but also enables everyone, irrespective of their financial means, location, or social background, to access to a fair, effective, affordable, and timely resolution of their disputes (Patel, 2026; UNDP, 2026). The Indian Constitution, through its

constitutional vision of justice, which is demonstrated in its provisions like Articles 14, 21 and 39A, calls for fairness, equality and access to justice in a timely manner. Delay of justice abridges these guarantees, and causes public distrust of the rule of law.

AI tools for judicial decision support systems engage with these normative foundations in multifaceted ways. While they can improve the justice system by making it more efficient and timely, they can also harm it by being opaque, biased, and stripping away judicial discretion. The challenge is to create and control AI systems that enhance, not diminish, these fundamental values.

3. The Promise: Efficient, consistent, and accessible justice.

3.1 Enhancing Judicial Efficiency

An often-quoted reason for the implementation of AI in the justice system is the improvement of efficiency. Courts around the world are confronted with growing backlogs of cases and are overwhelmed by the number of cases before them. As of 2024-2025, over 52 million cases were pending in all district courts, High Courts, and the Supreme Court in India (Patel, 2026). There are over 100 million cases lacking in Brazil (Pusic, 2026). The processing of cases in the U.S. federal district courts is significantly delayed, particularly in terms of time between discovery and final resolution (Williams, 2026).

To tackle these inefficiencies, AI tools can automate repetitive tasks. The automated transcription systems translate spoken language into text, easing the load on court reporters and clerks (OECD, 2025). AI-driven document management systems streamline case file organization and retrieval, saving valuable time from manual searches. The predictive analytics can be used to prioritize the cases based on the urgency and complexity of the cases, ensuring that resources are used to address the most critical cases (Joshi et al., 2023). These applications are not directly involved in any decisions made during the judicial process but will serve to make things easier for the processing of cases.

3.2 Promoting Consistency and Reducing Arbitrariness

AI can help ensure consistency in judicial decision-making by minimizing arbitrary variations in judicial outcomes. Even the most experienced human judges are prone to cognitive biases that can affect their decision making, such as anchoring, confirmation biases, hindsight biases, framing biases and implicit biases (Erkan, 2026). The biases can result in unequal treatment for litigants in similar situations, which can deceive the notion of equality before the law.

With proper design and training, AI systems can offer judges data-driven insights that can help mitigate these biases. For instance, a system of sentencing recommendations can examine past sentencing trends and propose sentences that align with those trends, thereby minimizing arbitrary and discriminatory sentencing (Yin, 2022; Wang, 2024). Case outcome prediction systems can reveal trends in judges' reasoning, otherwise unnoticed, that can facilitate more uniform application of the legal principles (Erkan, 2026; Katz et al., 2017).

This potential needs to be balanced, though, with the understanding that AI systems are not inherently ‘neutral’. As explained above, AI systems that have been trained on historical data can replicate, and often amplify, existing biases (Barocas & Selbst, 2016). The consistency that can be promised by AI is reliant on the quality of data, the algorithms themselves, and the governance structure in which they are used.

3.3 Expanding Access to Justice

One of the most transformative avenues of AI's use in the justice system is its ability to increase access to justice. In many countries, the legal aid services are underfunded and fail to provide the necessary assistance to those who are unable to afford it. Legal aid in India is limited due to awareness, financial constraints, shortage of lawyers and backlogs of cases (Bansal, 2025; Joshi et al., 2023).

AI tools can play a role in bridging this gap. In the field of legal information, legal chatbots like DoNotPay and Law Bot Pro can offer fundamental legal data and legal document composing help to people without charging any fees (Bansal, 2025). Legal aid attorneys can complete thorough research in minutes, as opposed to hours, thanks to AI-driven legal research platforms like ROSS Intelligence and LexisNexis (Kufakwababa, 2021). Using predictive analytics to prioritize cases and allocate resources effectively can assist legal aid providers in their decisions (Joshi et al., 2023).

One of the most exciting new advances is the use of Online Dispute Resolution (ODR) platforms. These platforms allow for conducting negotiations, mediation, and arbitration digitally, overcoming geographical and logistical limitations (Patel, 2026). In the midst of the COVID-19 pandemic, ODR platforms have proven to be scalable and accessible, and have successfully mediated millions of low-value, high-volume disputes across various industries, including banking, insurance and e-commerce (NITI Aayog, 2021). ODR has been recognized by NITI Aayog and Department of Legal Affairs as a viable option to solve high volume low value dispute in India (Patel, 2026).

However, the promise of AI to increase access to justice comes with some risks. The potential of using AI to deliver justice could be a risk to those who are most in need of it if access to technology is not equitable, as UNDP (2026) has warned. The digital divide - disparities in internet connectivity, digital literacy, and access to devices - can exacerbate existing inequalities, leaving marginalized populations without access to AI-powered legal services (Bansal, 2025; Torous et al., 2023). To meet this challenge, there must be intentional investments made in digital infrastructure, digital literacy curriculum, and user-centered design.

4. The Peril: Threats to Due Process and Judicial Integrity

4.1 Algorithmic Bias and Discrimination

Algorithmic bias, or systematic and repeatable errors in AI systems that result in unfair outcomes for certain groups (Barocas & Selbst, 2016), is one of the greatest risks of judicial decision support through AI. There are several sources of algorithmic biases: biased training data reflecting historical inequalities, biased model design reflecting normative choices, and biased optimization goals reflecting the prioritization of outputs over others (Erkan, 2026; Selbst et al., 2019).

An example of algorithmic bias in judicial settings is the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) system. COMPAS is a proprietary U.S.-based AI risk assessment tool that is employed to forecast recidivism and guide bail, sentencing and parole decisions (Angwin et al, 2016). ProPublica conducted an investigation that revealed that black defendants were consistently given higher risk scores than white defendants who had similar criminal histories (Angwin et al., 2016). Further studies demonstrated that racial bias exists in the COMPAS data set, and is actually exacerbated by AI systems like COMPAS (Oxford University,

2025). The rate of recidivism for women rated “high” is also significantly underpredicted by COMPAS: for women, the rate of recidivism is less than half the rate for men who were rated equally “high” (Women at the Table, 2025).

A key tenet of due process is equality before the law, which is at stake due to algorithmic bias. If AI systems deliver different results for people in similar circumstances because of their race, gender or socioeconomic status, they break the ban on discrimination and erode trust in the justice system (Erkan, 2026; OHCHR, 2025). Indirect and structural discrimination has been mentioned in the jurisprudence of the European Court of Human Rights (ECtHR), and so does the doctrine of algorithmic decision making (Erkan, 2026) do.

4.2 The Black Box Problem and Lack of Transparency

The "black box" problem relates to the opacity of AI systems, especially deep learning models, which lacks transparency in the processes that lead to decisions and actions that humans cannot easily or even fully comprehend (Pasquale, 2015). These opacity issues raise issues of fundamental due process such as having a reasoned decision, hearing, and effective remedy.

If an AI system assists in the making of a judicial decision, the litigants must be informed on the grounds of the decision. When the decision is made by an AI system, its reasoning is often obscure, which makes it difficult for litigants to challenge the decision, or to seek the right of appeal (Erkan, 2026; OHCHR, 2025). The need for a reasoned decision is an essential part of the right to a fair trial (Hadjianastassiou v. Greece). This right is not limited to access to the judicial system but is also applicable to access to the technology that enables judicial decision making.

Further exacerbated by trade secrets protections which hide proprietary algorithms from public view, the black box problem is compounded. In the COMPAS case, the proprietary nature of the algorithm made it difficult for the defendants to examine the methodology used in the algorithms, and there was serious due process concern (Wisconsin v. Loomis, 2016). Algorithmic systems create a kind of invisible authority, one that escapes the accountability mechanisms of traditional systems as Pasquale (2015) has claimed.

The black box problem has been suggested as a challenge to be addressed by Explainable AI (XAI). The purpose of XAI is to improve the transparency, trust and accountability of AI systems by providing explanations for their results (Saranya & Subhashini, 2023; Barredo Arrieta et al., 2020). But the efficacy of XAI is questioned. It has been demonstrated that providing XAI can boost the trust of the clinicians in AI models, but also the trust in wrong suggestions, which can adversely affect the performance of the human-AI team (Jackson et al., 2026). Furthermore, the absence of a standard evaluation protocol for XAI hinders its effectiveness evaluation in various applications (Bauer & Michalowski, 2025; Chen et al., 2022).

4.3 AI Hallucination and Reliability

The rise of AI hallucination, where false information is created and presented with credibility and authority, is a unique and emerging danger to the integrity of judicial processes. For example, large language models like ChatGPT produce statistically likely text from a given set of data without having a built-in process to verify the truth of the text (Williams, 2026). This feature is not a bug that needs to be patched, but an intrinsic architectural aspect of existing generative AI models (Estreicher & Polani, 2025).

AI hallucination has had serious repercussions in the legal field. Damien Charlotin is a researcher at HEC Paris, who has created an open-access database of court rulings on AI-

generated hallucinated content. By 2025, the database has reported 486 cases globally, 324 of them in the U.S. federal, state and tribal courts (Cronkite News, 2025). The problem is getting worse: case numbers have risen from about two cases a week before the end of spring semester 2025 up to two to three cases a day (Cronkite News, 2025).

Precedents for sanctions have been set in landmark cases. In Mata v. Avianca, Inc., 678 F. Supp. In 3d 443 (S.D.N.Y. 2023), attorneys cited 3d 443, and found six instances of fabricated cases generated by ChatGPT, which led to sanctions (Williams, 2026). In Park v. Kim, 91 F.4th 610 (2d Cir. In a recent decision (2023), the Second Circuit directed a lawyer to its Grievance Panel to consider a brief that included a hypothetical attorney-client scenario that it had created through ChatGPT. "At the very least, attorneys are obligated to read and thus affirm the existence and validity of the legal authorities upon which they rely under Rule 11, Park v. Kim, 91 F.4th at 615." In Fletcher v. Jaffer, No. 25-20086 (5th Circuit), the Fifth Circuit has recently referenced Park v. Kim, which held that AI-generated content could not constitute substantive due process. 2026).

The phenomenon of AI hallucination isn't confined to attorney documents. Judges are also already starting to use generative AI to aid legal research, case summarization, and drafting of orders; this practice poses the danger that the inaccuracies of AI will be incorporated into binding judicial rulings (MIT Technology Review, 2025). "When judge makes a mistake, that's the law," said one court technology expert (MIT Technology Review, 2025, quoting Judge Scott Schlegel). The repercussions of AI-induced judicial mistakes could have immediate and permanent implications in custody proceedings, bail cases, and sentencing.

4.5 Court's Power to Review Legislative Acts

AI and judicial decision-making introduce significant questions of loss of judicial discretion and independence. The fundamental principle of individualized justice is judicial discretion: the authority of judges to decide on the basis of a judicial evaluation of the facts and the law. However, there is a potential risk that judges might rely on the recommendations provided by the AI systems without independently evaluating the situation, which could lead to a lack of critical judgment (Erkan, 2026; Science Direct, 2026).

This risk is compounded by the phenomenon of automation bias - the tendency of humans to over-rely on automated systems (Parasuraman & Riley, 1997). Judges have been found to be sensitive to certain numbers (the anchoring effect) and an algorithmic score can serve as an anchor and indirectly affect independent judicial reasoning (Erkan, 2026). The Loomis case allows us to appreciate how the trial judge found the COMPAS report to be helpful for sentencing, and how he was more likely to rely on the COMPAS risk assessment results (He, 2024). The Wisconsin Supreme Court upheld the trial judgment, but noted that COMPAS results could be used as a sentencing reference but judges ought to be careful and not solely rely on the output of the system (Wisconsin v. Loomis, 2016).

The loss of judicial discretion is not simply a psychological issue, it's a structural issue. However, in the absence of a national and comprehensive legislation on AI, the apex courts and judicial councils are playing a greater role in controlling the use of AI in judicial systems (UNDP 2026). Judicial leadership is good, but it acknowledges the lack of regulation and a space created for the courts to decide the intricate technological questions without legislative direction.

The concept of judicial independence (the ability of the judiciary to decide on legal matters without the influence of the executive and legislative branches) is also involved. Any AI

system built by private corporations, ordered by the executive, or using data influenced by public policy priorities brings a new layer of "independence" analysis into the picture (Erkan, 2026). If algorithmic output is de facto binding, or if the court - because of its technical capacity - is not able to meaningfully scrutinize the algorithmic assessment, this can be an indirect transfer of the judicial function to the executive or to private actors (Erkan, 2026).

5. International Standards and Governance Frameworks

5.1 UNESCO Guidelines for the Use of AI Systems in Courts and Tribunals

In December 2025, UNESCO officially released the Guidelines for the Use of AI Systems in Courts and Tribunals, which is the first-ever global guidelines for the ethical and operational use of AI in judicial processes (UNESCO, 2025). The Guidelines have been created because of the fast and uneven pace of AI integration in justice systems globally and are designed to help enhance, not replace, human-based justice (UNESCO, 2025).

The Guidelines are grounded in fifteen principles shared by all, such as:

1. Human Rights and Fundamental Freedoms: AI systems should be designed to uphold, protect and promote human rights and fundamental freedoms in the context of the judiciary.
2. Human Oversight and Determination: AI systems need to be properly supervised by human beings, and final judicial decisions should be made by human judges.
3. Transparency and Explainability: AI systems should be transparent and explainable, so that the outputs of the AI system can be understood and examined by the judicial operators.
4. Fairness and Non-Discrimination: AI systems should ensure fairness and non-discrimination.
5. Accountability and Responsibility: There should be well-defined accountability frameworks for AI systems in a judicial setting.
6. Do No Harm and Proportionality: AI systems must be proportional to the purpose and do no harm.
7. Privacy and Data Protection: AI systems should comply with privacy and data protection requirements.

AI must be 'assistive' instead of 'substitutive', and there should be 'meaningful human supervision' of AI systems in order to ensure they are used responsibly (UNESCO, 2025). They offer practical orientation for judges, court administrators and policymakers interested in adopting AI, and are based on consultation with experts from more than 160 countries, involving more than 36,000 judicial actors (UNESCO, 2025).

5.2 Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law

The Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law opened for signature on 5 September 2024, and is the first-ever international legally binding treaty on AI (Council of Europe, 2024). The Convention seeks to guarantee that all actions throughout the lifecycle of AI systems are aligned with human rights, democracy and the rule of law (Council of Europe, 2024, Article 1).

- The Convention sets out principles which apply directly to AI in judicial contexts, such as:
- Human Rights Impact Assessments: AI systems need to be subjected to human rights impact assessments to identify and mitigate risks.
- Transparency and Oversight: The use of AI systems should be transparent, and there should be oversight mechanisms in place.
- Non-Discrimination: AI systems should not generate discriminatory results.
- Ethics: There should be clear guidelines on the ethical use of AI.

The Convention is legally binding, unlike soft law instruments like the UNESCO Guidelines. Signatory States have the responsibility to ensure that the principles of the Convention are applied in their own laws and institutions. By 2025, the Convention had already been signed by several countries, underscoring the ongoing international consensus that binding principles and rules for governance of AI are indeed necessary (Council of Europe 2025).

5.3 CEPEJ European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems

In 2018, the European Commission for the Efficiency of Justice (CEPEJ) adopted the European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems (CEPEJ, 2018). The Charter outlines five principles that should underlie the design and application of AI in judicial systems:

- Respect for Fundamental Rights: AI systems need to respect fundamental rights.
- Non Discrimination: AI systems should not deliver discriminatory results.
- Quality and Security: AI systems need to be high quality and secure.
- Transparency, Impartiality and Fairness: AI systems should be transparent, impartial and fair.
- User Control: Users must have control over AI systems.

The Charter highlights that the role of judges in the final decision should not be replaced by AI, and that all decisions should be taken by human judges (CEPEJ, 2018). It also offers recommendations for the procurement, design, development, and deployment of AI systems within judicial settings. The CEPEJ has then developed an Assessment Tool to offer practical guidance for integrating AI technologies with an ethical and effective manner in order to preserve fundamental principles (CEPEJ, 2025).

5.4 European Union AI Act (Regulation (EU) 2024/1689)

The European Union AI Act (Regulation (EU) 2024/1689) has been enacted and will enter into force on 1 August 2024, and takes a risk-based approach to the regulation of AI. AI systems deployed in the administration of justice and democratic processes fall under the category of high-risk systems, due to their potential impact on the rule of law, democracy, individual freedoms, and the right to an effective remedy and fair trial (as per Recital 61 of Regulation (EU) 2024/1689).

High-risk AI systems must comply with essential standards such as:

- Providers are required to set up, run and keep risk management in place.
- Data Governance: Training, validation and test sets should be relevant, representative, error free and complete.
- Technical Documentation: Technical documentation should be prepared by the providers which proves their compliance.
- The systems deployed must be “transparent” and “explainable” to allow the deployer to understand how the system works and how to use it correctly when it is deployed as a high-risk system.
- Human Oversight: Systems capable of high risks should be designed and developed to facilitate human oversight.

Both the provider and the deployer of AI systems have a clear mandate under the AI Act if they are used in a judicial setting. The regulations on high-risk AI practices will start to apply on 26 August 2027 (Regulation (EU) 2024/1689). The Act is the most extensive regulatory regime for the use of AI in judicial matters ever enacted, and is already impacting the discourse on the topic in other jurisdictions.

6. Comparative Jurisdictional Analysis

6.1 United States

The United States has led the way in AI's applications in judicial decision-making, especially in the criminal justice arena, particularly in the use of risk assessment tools. The COMPAS system, which is currently in use in several states, has been heavily litigated and the subject of scholarly debate (Angwin et al., 2016; Erkan, 2026). In Wisconsin v. Loomis, 881 N.W.2d 749 (Wis. In Wisconsin Supreme Court Ruling (2016), the Wisconsin Supreme Court upheld the use of COMPAS risk assessments for sentencing, but did warn that judges are required to use their discretion and not solely depend on the output from the system. In Wisconsin Supreme Court Ruling (2016) the Wisconsin Supreme Court ruled that COMPAS can be used in sentencing, but cautioned that judges must use their discretion and not rely solely on the output of the system.

In the federal system, the Judicial Conference's Advisory Committee on Evidence Rules (ACER) has made a recommendation for the Uniform Rule of Evidence for admissibility of AI-generated evidence (Rule 707) (Williams, 2026). The proposed rule would hold companies accountable for the reliability of their AI outputs in the same way as they do companies that provide testimony as experts. In June 2025, the proposed rule was approved by the Standing Committee on Rules of Practice and Procedure and published for public comment until February of 2026 (Williams, 2026).

Responses have been patchy at the State level. In Louisiana, attorneys are now required to take steps to ensure that evidence presented to the court is accurate and that they are being "reasonable" about it (Louisiana Act No. 250, § 3, Art. 371(C)). Pennsylvania requires explicit disclosure of the use of AI in court documents. The Florida Sunshine Laws mandate disclosure if the use of AI affects billing, and strongly suggest informed consent prior to the use of third-party generative AI that involves confidential information. In Texas, AI-generated content must be supervised by humans. Numerous states have not released any official guidance whatsoever (Williams, 2026).

With no single "national" framework, there are a variety of state responses. This disintegration makes it hard for lawyers to practice in multiple jurisdictions and leads to problems with equal protection for litigants in different states (Williams, 2026).

6.2 China

In China, the initiative of "Smart Courts" has been the most organized and extensive one in embedding AI in judicial processes (Science Direct, 2026). In 2016, the Supreme People's Court first put forward the idea to establish smart courts, and in 2018, the national "smart court" framework was initially formed (Wang, 2024). The 2022 Opinions on Regulating and Strengthening the Judicial Application of Artificial Intelligence aim to promote further integration of AI with judicial work.

In the judicial sector, AI is being used in China for:

Intelligent Case Handling Systems: In the "206 System" of the Shanghai court, a unified evidence standard is incorporated into digital case handling, allowing judges to get case analysis and sentencing suggestions (Wang, 2024; Cui, 2020).

Sentencing Recommendation Systems: Guizhou Province has a "Law Mirror" and Hainan Province has a sentencing standardization intelligent auxiliary system, both of which offer sentencing suggestions to judges based on previous historical data (Yin, 2022; Wang, 2024).

Speech Recognition and Transcription: AI-powered speech recognition systems automatically transcribe court proceedings, reducing the burden on court reporters (A-12-2023).

Predictive Analytics: AI systems can analyse past cases and make predictions about the outcomes of future ones, assisting judges in making analytical decisions (Cui, 2020).

There are risks to AI-assisted sentencing, such as algorithmic black box, algorithmic discrimination, and mechanistic tendencies, among which, algorithmic black box refers to the lack of transparency in algorithmic decision-making, which poses hazards to the public.AI-assisted sentencing poses risks including algorithmic black box, algorithmic discrimination, and mechanistic tendencies, of which algorithmic black box refers to the absence of transparency in algorithmic decision-making, which creates hazards for the public. The Supreme People's Court has also stated that AI is intended to be used as an "auxiliary" tool and should not be used to supplant judicial discretion (Wang, 2024). There are concerns, however, regarding the potential for over-reliance on AI recommendations by judges, which might result in "mechanical adjudication" (Science Direct, 2026).

6.3 European Union

The EU has the most comprehensive framework for the regulation of judicial AI, which is the AI Act (Regulation (EU) 2024/1689). The Act's designation of AI systems applied to judicial

decision-making as high risk makes high demands on providers and users of the systems, such as the obligation to ensure that risk are managed, data is governed and systems are made transparent, and to ensure that there is human oversight of the systems.

The level of integration of AI in the member states varies. Experimental decision-support systems in the Netherlands offer judges statistics based on previous cases, but do not make binding decisions (Erkan, 2026). As for the use of algorithmic decision support tools in criminal justice, the application of these tools has been limited to a clearly defined legal framework in France, and the automated processing of judges' decisions to profile them has been banned (Erkan 2026). In the United Kingdom, HM Courts & Tribunals Service has brought in the use of data analytics to a large degree in case management and resource planning, such as online filing systems, automated case-routing and workload planning tools (Erkan, 2026).

There are no direct precedents drawn from the jurisprudence of the European Court of Human Rights on algorithmic decision-making systems, but the Court's case law regarding the prohibition of discrimination, the right to a fair trial and the requirement to provide reasoned judgments provides solid normative frameworks for scrutinising algorithmic decisions (Erkan, 2026). The Court's reasoning based on indirect discrimination and proportionality analysis highlights the positive obligations of the State in cases where a seemingly neutral practice has an impact on certain groups which is disproportionate.

6.4 Brazil

In Brazil, AI systems have been introduced to tackle the backlog of over 100 million cases (Pusic, 2026). The National Justice Council (CNJ) has encouraged digitalization by initiatives like e-Process system facilitating electronic filing and tracking of cases. AI systems can be employed for three types of functionality, including prioritizing cases (VICTOR system), aiding legal research (SOCRATES system), and drafting documents (Pusic, 2026).

The Brazilian experience is cause for concerns of due process. AI systems that prioritize cases, write opinions, and recommend decisions can affect court decisions without sufficient transparency and accountability (Pusic, 2026). But there's been a question as to whether the cure is worse than the disease: are any AI systems that increase case processing time also reducing the quality of justice? Because of the absence of a systematic review of the use of AI systems in Brazilian courts, it is hard to assess their effects on due process and access to justice (Pusic, 2026).

6.5 India

The government of India has taken several steps to promote the use of AI in its judicial systems.The government of India has implemented various initiatives to integrate AI into its judicial systems. The National Policy and Action Plan for the use of information technology in the Indian judiciary have been laid down by Supreme Court of India which has entered into its third phase (Varghese, 2025). Examples of specific AI projects include:

The Supreme Court has been employing AI to translate judicial documents into various languages since February 2023. There are now more than 36,271 judgments translated into Hindi, and 17,142 judgments in 16 regional languages, as of August 2024 (Varghese, 2025).

- Legal Research Automation: Legal research processes are being automated, with AI tools aiding in faster access to relevant case law and statutes (Varghese, 2025).

- The AI Saransh Tool developed by the NANDIAN has been designed to automatically produce a summary of pleadings to pinpoint contentious issues in legal proceedings (Varghese, 2025).
- SUPACE: Supreme Court Portal for Assistance in Court's Efficiency is an AI enabled Research Platform (Bansal, 2025).

India's legal aid system has also started looking into the use of AI. Legal chatbots like NyayGuru and LAWFYI are offering legal information to the masses (Bansal, 2025). Legal aid providers can leverage the power of predictive analytics to prioritize cases and optimize resource allocation (Joshi et al., 2023). In recent years, online Dispute Resolution (ODR) platforms have been developed to provide a scalable answer to high volume, low dollar disputes (Patel, 2026).

6.6 Pakistan

The judiciary in Pakistan has also dealt with AI in judicial decisions. In the landmark case of Ishfaq Ahmed v. Mushtaq Ahmed 2025 SCP 112, the Supreme Court of Pakistan stated that AI can facilitate research, clarity, and analysis of case flow but should never replace the judge's interpretative function (Courting the Law, 2025). This principle is a general constitutional principle that AI should be used as a complement, not a replacement, to human reason.

7. Toward a Constitutional Framework for AI-Assisted Justice

7.1 Erkan Constitutional Algorithmic Safeguard Model (ECASM)

The Erkan Constitutional Algorithmic Safeguard Model (ECASM) offers a structured approach to implementing AI technologies in judicial decision-making that effectively protects constitutional values (Erkan, 2026). The model is designed as an algorithmic system that is not a neutral administrative tool, but is a constitutional risk-producing system, which is subject to a multi-layered control.

The model is made up of four layers:

Layer I: Normative Compatibility Review

This layer checks the compliance of the algorithm with constitutional values and human rights norms. Relevant questions are: Does the use of the variables involve the risk of indirect discrimination? Does the system respect the right to a fair trial and the right to the freedom from discrimination? Have the principles of equality and proportionality been followed? This layer transforms the algorithm into a normative object which may undergo a constitutional review and not a technical instrument only. It has been suggested that both ex ante constitutional compliance review and mandatory human rights impact assessment should be introduced.

Layer II: Transparency and Explainability Review

This layer reviews if the underlying decision logic is comprehensible, if parties are able to effectively challenge the algorithmic assessment and if the contribution of the algorithm is clearly stated in the reasoned judgment. Where a system operates as a "black box" or it is kept closed because of trade-secrecy, its judicial application should be constitutionally limited. This layer is a modern manifestation of the right to a reasoned judgment, with the goal of protecting guarantees of procedural fairness in the digital age.

Layer III: Institutional Responsibility and Authority Review

This layer deals with the who is responsible for what goes wrong with an algorithm question. The model calls for a three-part accountability system: accountability for developers, accountability of administrative authorities, and accountability to the courts. In this scheme, it is not an algorithm that replaces the judge or has the power to make judgments, but rather it is a tool that is used alongside the judge and clearly marked in the judgment as an "auxiliary tool. This is to protect the fundamental rule of non-delegation of judicial power and to curb de facto transfers of power.

Layer IV: Behavioral Impact Review

This layer makes a deliberate effort to include behavioral risks within the oversight framework, such as independent reasoning verification, anchoring effect analysis, and automation bias testing. Proposed practical safeguards involve having the judge provide an outline of the decision prior to considering the algorithmic score, testing for alternative scenarios, and making it clear that the judge is acting independently in their writing. This layer provides a theoretical contribution to literature by incorporating cognitive and algorithmic bias in the same framework.

Unlike other models, the ECASM model is applicable to all jurisdictions since it is based on maintaining legal legitimacy, and not on a particular technological preference (Erkan, 2026). Does not ban algorithmic systems; puts them within the limits of the constitution. As Erkan (2026) finishes, algorithms can aid in decisions, but they cannot stand for justice.

7.2 Integrating International Standards

The ECASM model can be combined with international standards to create a holistic governance model for AI support to judicial decision making. The UNESCO Guidelines (2025) are based on 15 principles that correspond to the ECASM layers: human rights and fundamental freedoms (Layer I); transparency and explainability (Layer II); accountability and responsibility (Layer III); and human oversight and determination (Layer IV). These are reinforced by the legally binding obligations in the Council of Europe Framework Convention (2024). EU AI Act (Regulation (EU) 2024/1689) sets out specific requirements for high-risk AI systems that can be realized through ECASM.

These frameworks need to be integrated through:

1. Legislative Action: Adopt a comprehensive AI governance bill, which should be based on the UNESCO Guidelines, the Council of Europe Framework Convention and the EU AI Act.
2. Judicial Education: train judges and court staff on AI technologies, ethical issues, and regulations.
3. Institutional Oversight: Set up independent oversight bodies to assess the use of AI in judicial settings and ensure compliance with constitutional and human rights standards.
4. Transparency and Accountability: Ensure that AI systems are designed to be transparent, disclosing data sources, design and operation, and who is held accountable.

5. Access to Justice: Design and implement AI systems to be inclusive of access to justice, particularly to address the digital divide and the needs of marginalized groups.

7.3 Policymaker and judiciary recommendations:

Such considerations make the following recommendations:

1. Establish Clear Legal Frameworks for AI in Judicial Contexts

Policymakers should adopt laws that regulate the application of AI in judicial decision-making, aligning with international norms such as the UNESCO Guidelines, the Council of Europe Framework Convention, the EU AI Act. Such frameworks should draw the boundaries of permitted AI uses, set in place essential standards of transparency, explainability and human control and guarantee independent oversight and accountability.

2. Mandate Human Oversight and Judicial Discretion

AI systems must be given human oversight and let be ruled on by human judges. AI-based recommendations should be clearly identified as "auxiliary tools" not as "determinations". Judges have the discretion to override AI recommendations and are required to give reasons for their decision.

3. Require Transparency and Explainability

Judicial applications of AI need to be explainable and transparent. The logic of the decision must be comprehensible to the litigant and his/her representative. Parties should be able to object to algorithms evaluations and be given explanations of the use of AI systems in judicial decisions. No exceptions should be allowed to the requirement for trade secrets to be subject to judicial review.

4. Identify and create Independent Oversight and Accountability Mechanisms

Independent oversight bodies must be created to monitor AI systems in legal settings, making sure that they meet constitutional and human rights criteria. The authority of these bodies should include the power to audit, call for modifications and impose sanctions to non-compliance. Clear accountability rules should be adopted for the mistakes made by AI, and responsibility should be shared between the developer, the deployer, and the judicial user.

5. Invest in Judicial Education and Capacity Building

Legal professionals, court staff, and judges need to be trained on AI technologies, ethical implications, and regulations. Legal practitioners, judicial officers, and court personnel should be trained in AI technologies, ethical issues, and regulations. Judicial actors should be required to regularly and systematically train themselves on how to understand AI systems, critically evaluate their outputs and have meaningful oversight.

6. Address the Digital Divide and Ensure Equitable Access

Focusing on building digital infrastructure, digital literacy initiatives, and user-centered design principles, policymakers must work to make sure that AI-driven legal services are accessible to everyone, irrespective of their geographical location, financial circumstances, or digital literacy. The needs of marginalized and vulnerable population segments need to be taken into account in particular.

7. Conduct Empirical Evaluation and Independent Research

Judicial AI systems must be regularly tested with clear, open metrics. Assessments should not only consider efficiency improvements, but also effects on procedural justice, judicial independence, trust in the judiciary and access to justice.

8. Conclusion

AI is one of the most pivotal changes in the conduct of justice in the 21st century. Judicial Decision Support Systems with AI have the potential to transform the judicial environment, improving efficiency, consistency, and access to justice. However, they also present grave threats to the rule of law, an independent judiciary, equality before the law, and public confidence in judicial institutions.

The article has conducted an in-depth doctrinal and comparative analysis of AI-based judicial decision making support systems, examining their effect on due process and access to justice. It's reviewed algorithmic bias, opacity, AI hallucination, and the diminution of judicial discretion to the detriment of the fundamental rights. It has engaged with international standards and governance frameworks, such as the UNESCO Guidelines, the Council of Europe Framework Convention and the EU AI Act. It has been able to make a comparative assessment of the deployment of AI in the U.S., China, the European Union, Brazil and India. It has suggested a constitutional mode for “AI-based justice” that has incorporated the Erkan constitutional algorithmic safeguard model and international human rights standards.

At the heart of this analysis is the need for due process, transparency, accountability, and human oversight of AI-driven justice. AI can supplement, but not replace, a judge's reasoning. As algorithmic authority emerges, potential changes in judicial decision's legitimacy from legal normativity to statistical accuracy (Erkan, 2026) may occur. However, statistical precision would never be an adequate argument for normative legitimacy; the normative legitimacy cannot be created by algorithmic computations (Erkan, 2026).

The future of the judiciary will definitely be digital but the legitimacy can be maintained only through the normative responsibility of human reasoning (Erkan, 2026). The deployment of AI in the Judiciary under the theme “AI as an assistive rather than a substitutive technology” has been rightly highlighted by UNESCO (2025). The challenge for policymakers, judiciaries and technology developers is to build and regulate AI systems that reinforce the core values of the justice system and not undermine it.

This technology is not going to be slowing down. The concern now is whether the institutions of justice can set up their own pace to match that of justice (Williams, 2026). AI will bring a new level of efficiency to justice, but how it is achieved is just as important in an increasingly digital legal order as access, fairness, transparency and humanism.

Algorithms can help make decisions but they can't embody justice.

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