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AI and Justice: The Promise and Peril of Algorithmic Adjudication

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Abstract-

In the rapidly evolving age of technology, the advent of AI into major systems has been ubiquitous, employed to all sectors and spaces, including the legal domain. While its integration into the field has offered enhanced efficiency in research, drafting, analysis, summarising and even judgement drafting, there have been an ample number of ethical concerns raised around its deployment in the field. The biggest concern however, arises from its potential use as an authority in adjudications, calling attention towards concerns regarding reliability, interpretative inconsistency and ethical constraints. This study aims to explore the feasibility of real-world applications of AI's usage in judicial processes, like that of China's AI- Assisted courts, or Estonia's AI based small claims courts, or the Supreme Court of India recently adopting an AI based system for transcription and legal research.

The Chandigarh High Court, recently cited ChatGPT in approving the usage of Differential Global Positioning System (DGPS) while adjudicating upon a property dispute, creating conflict over using information provided by it as a valid basis to provide an adjudication. Venturing into the central idea of the paper- reliability of using AI as an authority, while drafting judgements presents a paradox - whether something inherently 'non-standard' can ever be elevated to the status of a standard. The concern lies in the fact that if a potentially biased and ever-adapting entity truly serve as a stable and reliable reference point in legal decision-making, or does its very adaptability, coupled with ability to process data at a much more efficient pace which can expedite trials in the overburdened Indian courts.

Another facet that is explored within the paper, is the extent to which AI can be used as against human intelligence vis-à-vis cases that involve subjective components like that of human discretion, sentience and sensitivity, via the means of a comparative legal analysis, testing its alignment with the principles of natural justice and humanity, beyond the books.

Ultimately, by carefully considering the implications of AI, the paper emphasizes the necessity of a cautious and collaborative approach and envisions a future where technological innovation serves as a tool to strengthen, rather than undermine, the pursuit of justice.

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Keywords: AI: Artificial Intelligence; Digitalization: adaptation of a system to be operated with the use of computers; CMS: electronic case management system used in courts for managing case files; Legal research database: collection of legal information in digital mode like case laws, statutes etc.; ODR: Online dispute resolution uses the digital technology for resolution of disputes between parties.

1. Introduction

The convergence of law and technology has been at conflict owing to law's resistance to the latter. Law and its reliance upon human discretion, statutory interpretation and procedural formalities make its nature to be highly avoidant of any technological interference. However, as judicial infrastructures throughout the globe are overburdened and subsequently causing issues such as caseload backlogs, delays in adjudication, and inefficiencies in legal research, technology has gradually become indispensable in legal processes. The integration of technology, specifically Artificial Intelligence has had a significant effect upon law at multiple levels, ranging from case managements, to AI-powered judicial analytics.

1.1 Early Digitalization in the Judiciary: The Foundations of Legal Technology

The initial inclusion can be traced back into the late 20th century, when courts began to use electronic Case Management Systems (CMS) to organize judicial records and reduce reliance on physical documentation.[1] The United States, being at the frontier of all technological development, also pioneered in this, with the inclusion of legal research databases like that of Westlaw (1975) and LexisNexis (1973), which helped facilitate access judicial precedents and statutory material.[2]

In later 1990's courts across North America and Europe started integrating Electronic Filing Systems (EFS) into their systems to streamline submission of legal documents and evidence. [3] The introduction of the Case Management/Electronic Case Files (CM/ECF) systems by the U.S. Federal Courts served as a breakthrough, allowing the expedition of case handling and administrative inefficiencies.[4] Alternate Dispute Resolution (ADR) also saw similar developments, with the rise of Online Dispute Resolution (ODR), particularly in arbitration and consumer disputes[5]. The United Nations Commission on International Trade Law (UNCITRAL) considered ODR as a viable mechanism for inter-jurisdictional dispute resolution mechanisms,

[1] Richard Susskind, *The Future of Law: Facing the Challenges of Information Technology* 85-90 (1996).
[2] Thomas M. Cooley, *Legal Research: The Evolution of Electronic Databases*, 45 Am. J. Legal Hist. 102, 107 (2002).
[3] Maureen O'Neill, *Electronic Filing in the Federal Courts: A Twenty-First Century Approach to the Federal Rules*, 17 FED. CTS. L. REV. 75, 78 (2004).
[4] U.S. Courts, Case Management/Electronic Case Files (CM/ECF) System, U.S. CTS., https://www.uscourts.gov/courtrecords/case-managementelectronic-case-files-system-cmecf (last visited Feb. 10, 2025).
[5] Contributors to Wikipedia projects, *Online dispute resolution - Wikipedia* (June 28, 2004), https://en.m.wikipedia.org/wiki/Online_dispute_resolution.

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presenting an opportunity for enterprises across the globe to explore further applications of digital adjudication.[6]

In later years, as legal-tech improvised at an incredible pace, artificial intelligence was introduced in legal processes, even being integrated into adjudication processes. However, in the initial stages, it was confined to predictive analysis and legal research, designed with the mere purpose of assistance to lawyers and judges in research and drafting. One of the first AI-based legal tools was the COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) algorithm, deployed with the purpose of judging the likelihood of an offender rehabilitating themselves.[7]

This however, was scrapped, owing to the algorithms adopting racist patterns, with often proclaiming African American defendants as high-risk offenders, underscoring a potential controversy regarding the bias involved in AI based decision making. [8]

However, the next decade saw immense advancements in Machine Learning (ML) and Natural Language Processing (NLP), allowing the AI to be utilised in much more complex tasks, even with the introduction of chatbots like that of ROSS intelligence and DoNotPay.

2. AI in Adjudication: A Comparative Global Analysis

AI's influence has contemporarily extended beyond Europe and North America. The functions of these systems range from legal research to semi-autonomous adjudications of the same. Such systems exist in countries like China, Estonia and India[9].

1. **Chinese AI Assisted Courts**
   In 2017, Chinese Internet Courts under the "Smart Courts" initiative integrated AI within them for the purpose of document verification and even automated ruling in minor disputes.[10] The Chinese Supreme People's Court reported that over 10 million cases have been processed through these platforms. [11]
1. **Estonia's AI powered small claims courts**
   Designed for disputes valued up to €7,000, they are functioned to automate case analysis and generate preliminary rulings, however, with letting litigants retain the right to appeal

[6] U.N. Comm'n on Int'l Trade L. (UNCITRAL), Online Dispute Resolution for Cross-Border Electronic Commerce Transactions, U.N. Doc. A/RES/68/107 (Dec. 18, 2013).
[7] Julia Angwin et al., *Machine Bias*, PROPUBLICA (May 23, 2016), https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing.
[8] U.S. Department of Justice, Bureau of Just. Stat., *Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010* (2014), https://www.bjs.gov/content/pub/pdf/rprts05p0510.pdf.
[9] Kashif Javed & Jianxin Li, *Artificial intelligence in judicial adjudication: Semantic biasness classification and identification in legal judgement (SBCILJ)* (May 15, 2024), https://www.sciencedirect.com/science/article/pii/S2405844024062157.
[10] Sup. People's Ct. of China, White Paper on Smart Courts and Judicial AI Development in China, CHINA JUD. (2020), https://www.court.gov.cn/smartcourt/whitepaper.pdf.
[11] Ding Xiaoyang, *China's Smart Courts: AI-Powered Adjudication and Legal Reform*, 18 J. CHINESE L. STUD. 254, 260 (2021).

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before human courts.[12] These courts (Estonia and China both) however had created questions with compliance towards Article 10 of the Universal Declaration of Human Rights. [13]

2. **Indian adoption**

Although substantially overburdened, Indian Courts have selected a measured approach, with primarily integrating AI for clerical work. The Supreme Court of India recently adopted AI based transcription tools, and the National Judicial Data Grid (NJDG) utilizes AI to monitor case pendency.[14] In late 2024 however, major controversy arose when the Chandigarh High Court cited ChatGPT to support the admissibility of Differential Global Positioning System (DGPS) evidence in a property dispute. This ended up raising a fundamental question upon the validity of using AI for judicial reference. [15]

While AI serves as a major component in enhancing judicial efficiency, there exist broader concerns around its ethical implications, essentially question judicial accountability, fairness and interpretative consistency with respect to its engagement in adjudication. [16]

3. Ethical Implications of AI in Judicial Decision-Making

AI's increasing involvement within judicial processes of all kinds call for a review of its role into decision making processes, presenting ample amounts of fundamental ethical dilemmas. A tool, that is inherently designed to avoid any sorts of moral reasoning and is devoid of human intuition as a whole,[17] can it be included into a system which utilises both of them as major parameters to provide justice?

There is a severe need to understand the meaning of being "ethical" in the context of AI being utilised for adjudications. Law, although a precise endeavour, has a major sentient component to it, especially in the Indian context, especially in cases involved in providing equitable relief, where judicial discretion, moral reasoning and human empathy play a major role.

A major concern lies in the subjectivity of responses, based around how these queries (prompts) are framed, and in often cases, who frames them. AI models can generate different results upon the same issue, leading to a possible interpretative inconsistency in the reasoning provided by it. Research displays, that contradictory statements can be produced by the models, based on the

[12] Estonian Ministry of Justice, AI in Legal Adjudication: Estonia's Small Claims Court Experiment, EST. GOV'T (2022), https://www.just.ee/ai-courts .
[13] Universal Declaration of Human Rights art. 10, G.A. Res. 217 (III) A, U.N. Doc. A/810 (Dec. 10, 1948).
[14] Press Information Bureau, Ministry of Law & Just., Chief Justice of India D.Y. Chandrachud Launches AI Tool 'SUPACE' for Judiciary, GOV'T OF INDIA (Jan. 17, 2024), https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2043476.
[15] Anmol Sharma, ChatGPT in Courtrooms? Chandigarh HC Cites AI in Landmark Judgment, LIVELAW (Mar. 29, 2023), https://www.livelaw.in/top-stories/chandigarh-hc-cites-chatgpt-judgment-224573.
[16] Shreya Seth, *AI & Law: Evaluating the Use of AI in Indian Judiciary*, 4 IND. J. TECH. & LAW 45, 50 (2024).
[17] David Watson, Artificial Intelligence and Human Intuition: A Study of Limitations, 5 Nature 123 (2023), https://www.nature.com/articles/s41599-023-01787-8.

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slightest differences in inputs provided, raising concerns around fairness and predictability in AI- Assisted adjudication. [18]

Justice Anoop Chitkara of the Punjab and Haryana High Court had in a first, used ChatGPT in a bail order to get a global perspective of bail jurisprudence, back in 2023.[19] The court however clarified that any reference to ChatGPT was neither an expression of opinion on the merits of the case nor shall the trial Court advert to these comments and that the it was only intended to present a broader picture of bail jurisprudence, where cruelty is a factor. Justice Deepak Gupta, of the same court turned to ChatGPT in questioning the validity of using Differential Global Positioning System (DGPS) in solving a property related dispute, and relied on the reasoning provided by the same to decide the matter.[20] This raised a plethora of questions around the authority AI generated responses hold, primarily if they are precedential or persuasive in nature.

"Automation Bias" refers to the tendency humans hold on over-relying upon algorithmic suggestions, even though they might be erroneous in nature. [21] Studies display a possibility of judges often leaning automated responses unconsciously, even when errors exist. [22] This also brings up another dilemma, around the possibility of AI replacing human discretion in adjudicative reasoning.

With AI based systems like the Chinese and Estonian AI courts, another ethical debate comes forth, as to whether AI complies with the due process of law and/or the procedure established by law, as the jurisdiction requires. This subsequently poses a threat, in the form of violating the principles of natural justice, undermining the right to fair trial.

As courts continue to involve AI within their proceedings, serious regulatory scrutiny is an imperative, with the purpose of ensuring that it doesn't act as an arsonist in the façade of a fire fighter.

4. Sentience, Emotion and AI in judgements

The fundamental nature of judicial decision making extends often beyond the application of legal principles and the law as it is. The essence of justice is not just limited to what the law is, but often within the question, "What law ought to be". Legal theorists such as Ronald Dworkin have argued that law is not just a system of rules but a moral practice that demands interpretative engagement. [23] Courts often preside over cases that demand an understanding of grief, remorse,

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[18] Harry Surden, *Machine Learning and Law: An Overview*, 89 WASH. L. REV. 87, 95 (2014) https://digitalcommons.law.uw.edu/wlr/vol89/iss1/5/.

[19] *Jaswinder Singh @ Jassi v. State of Punjab & Anr.*, CRM-M-43672-2022 (O&M), decided on Mar. 27, 2023 (Punjab & Haryana High Court)

[20] *Kuldeep Kumar Sharma v. Randeep Rana*, CR No. 3077 of 2023, decided on Jan. 7, 2025 (Punjab & Haryana High Court).

[21] Linda J. Skitka, Kathleen Mosier & Mark Burdick, *Does Automation Bias Decision-Making?*, 51 *Int'l J. of Hum.-Comput. Stud.* 991 (1999). https://lskitka.people.uic.edu/AutomationBias.pdf

[22] Daniel Martin Katz et al., *A General Approach for Predicting the Behavior of the Supreme Court of the United States*, 12 PLOS ONE e0174698 (2017), https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174698

[23] Ronald Dworkin, *Law's Empire* 225-30 (1986).

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credibility and trauma, particularly when it comes to criminal law, family law, human rights and public interest litigations. The incapability of AI to experience, understand and comprehend emotion, suffering and interpreting moral dilemmas, makes its role in emotionally charged matters highly problematic.

While AI has ample amount of doctrinal knowledge of law, undoubtedly more than what an average legal practitioner does, its inability to process such additional dynamics, raises particular questions. While AI can determine the liability of a certain act based on evidence, facts of the case, precedent and provisions, the ability of AI to prescribe an accurate and justifiable scope of liability is yet not up to the mark. Cases that require an understanding of the *mens rea* of a person, put forth a major issue. Another such instance comes across with respect to the "rarest of the rarest" doctrine applied in cases of capital punishment in India.[24] While a human judge can process, the extremity of the act committed, AI lacks the emotional mechanism that is required to process all of the information at the same time, displaying a paramount importance of human intuition within adjudication processes.

Additionally, such intuitive reasoning can often extend beyond the type of matters mentioned earlier. Even in cases that are civil in nature, there is a certain reasoning required to give a fair, just and equitable adjudication. The tort of "Nervous Shock", is one such example, under which a person can claim damages owing to psychiatric injury caused by an act of another party. However, this requires the courts to examine factors like foreseeability, proximity, and causation, all of which aren't quantifiable. In Alcock v. Chief Constable of South Yorkshire Police, the House of Lords ruled that secondary victims of the Hillsborough disaster could only claim damages if they met specific legal tests, including close ties of love and affection, proximity to the event, and direct perception of the harm caused.[25] Such cases demand a level of empathetic reasoning and contextual understanding that a tool devoid of human emotion and experiential knowledge is incapable of providing.

The similar also extends to commercial disputes, for contract law often requires evaluative reasoning beyond the books. AI's sole reliance on pattern recognition and statistical reasoning can often lead to an unsatisfactory understanding of the matter at hand. In Lloyds Bank Ltd v. Bundy, Lord Denning introduced the concept of inequality of bargaining power, wherein contracts could be struck down if one party was significantly disadvantaged due to undue influence or vulnerability.[26] The methods using which AI generates output, cannot independently gauge equity, undue influence, or the nature of duress under which a party might be.

Environmental litigation also presents an additional example in the same, displaying how AI might affect the quality of the consideration displayed towards public interest. Such litigations, often extend beyond scientific and legal factors, but also social, cultural and ethical dilemmas.

[24] Law Commission of India, 262nd Report on the Death Penalty (2015), https://lawcommissionofindia.nic.in/reports/report262.pdf.
[25] Alcock v. Chief Constable of S. Yorkshire Police, [1991] 4 All ER 907 (HL).
[26] Lloyds Bank Ltd. v. Bundy, [1975] QB 326 (CA).

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While AI can be used to process data and climate impact models, its blanket lack of accountability towards ecological ethics and intergenerational justice and well-being, is highly hazardous to the sanctity towards the job of the courts as the protectors of rights.

The U.S. Supreme Court case Massachusetts v. EPA is an example of how courts blend legal analysis with environmental ethics.[27] The court held that the U.S. Environmental Protection Agency (EPA) had a duty to regulate greenhouse gas emissions, emphasizing the moral and legal obligation of governments to combat climate change. Similarly, in Indian jurisdictions, the case of MC Mehta v. Union of India, the courts established precautionary principles and the polluter pays principles, emphasising on the ethical and moral responsibility of both- the state and the industries to protect the environment and the people living within it. [28]

AI operating on statutory mandate and past precedents, may often lack the judicial innovation required to effectively apply the existing principles. While AI's knowledge upon doctrinal questions is very expansive, often times these questions themselves are beyond the pre-existing elements, and beyond their coded written classification. An instance of this happening was when the Supreme Court in T.N. Godavarman Thirumulpad v. Union of India extended the definition of "forests" beyond its legal classification, with the intent to protect ecologically sensitive areas, displaying a comparative analysis between "what law is" and "what law ought to be".[29] Such an expansive interpretation cannot be expected from a model that lacks the thorough comprehension of a lot of implied factors that are a part of such cases.

There also exists another side to the question being pondered upon. Human judges, like all individuals, may be influenced by emotional and cognitive biases, making them susceptible to subtle persuasion or strategic legal arguments presented by parties seeking a favourable outcome. While principles of law go against this, studies have displayed the role of external factors in the different rulings, like that of fatigue, time of the day, or even their emotional state.[30] While AI models have earlier replicated historical biases, like that in the case of COMPAS model, an inverse mechanism can also be implied to determine and detect systematic discrimination in following the due process of law and/or the procedure established by law.

In minor cases like that of traffic violations or petty crimes, AI can also be programmed to disregard elements like that of race, gender, religion, sex or any other ascribed status to the perpetrator, allowing them to serve a prescribed punishment, instead of bearing an unfair and additional punishment in the form of systematic oppression, protecting them from violations like that of police brutality or unfair trials.

Judiciaries all over, face major case backlogs. AI based systems, using certain quantified mechanisms, can help in organising the same. To take a real time example, India struggles with massive delay in justice, with sometimes it extending to years, and even decades, with this

[27] Massachusetts v. EPA, 549 U.S. 497 (2007).
[28] MC Mehta v. Union of India, (1987) 1 SCC 395.
[29] T.N. Godavarman Thirumulpad v. Union of India, (1997) 2 SCC 267.
[30] Shai Danziger et al., *Extraneous Factors in Judicial Decisions*, 108 PROC. NAT'L ACAD. SCI. 6889, 6893 (2011).

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happening post setting up of fast-track court mechanisms.[31] In a progressive step, the National Judicial Data Grid was deployed, which by the means of AI-driven algorithms, analyses case statuses, pendency and judicial trends.[32] The data derived from the mechanism, can be used to formulate a pattern into analysing the minor and major issues into a scope of inefficiencies. This shall be further discussed in the latter sections.

4.1 AI as Legal Practitioners: The Rise of Algorithmic Lawyers

AI's penetration into legal systems, has raised a major concern around the replicability of the lawyers and judges, and how it could serve as an alternative to both in the near future. While AI-driven tools provide accessibility, cost-effective legal assistance and mitigate human biases, concerns around privacy, factual inaccuracy, susceptibility to manipulation and embedded biases are often raised around the same. The legal profession has already witnessed the rise of AI powered systems which are designed to provide aid to common people, as an entrepreneurial venture. "DoNotPay", often referred to as the "world's first AI lawyer" was created to democratize the easy access to justice by providing guidance on minor claims like that of consumer disputes and parking tickets.[33] These systems base their advice upon legal databases, precedents, and statutory frameworks.

Despite an ample of advantages provided by the same, AI driven advisers have presented severe challenges which stigmatize their adoption into legal practice. AI often tends to generate fabricated case laws and content and even misinterpreting statutory provisions.[34] In 2023, a U.S. lawyer faced sanctions after submitting a legal brief generated by ChatGPT that included fictitious cases and citations.[35] Many such tools often operate via a cloud-based model, meaning that such information can be accessed by third party, displaying zero attorney-client privilege. These models often process highly sensitive and personal data, which raises concerns about data security and provides exposure to cyber-threats, possibly encroaching upon the fundamental right to privacy.

4.2 AI as Judges: Automated Justice

While the paper entirely focuses on integrating AI into adjudication process, it is also important to see the possibility of utilising AI as a singular judge. A study upon semantic bias highlighted the issue its presence in AI assisted judicial processes, displaying how machines often inherit

[31] Law Commission of India, Report on Delay and Arrears in Trial Courts, REP. NO. 245 (2014), https://lawcommissionofindia.nic.in/reports/report245.pdf.
[32] National Judicial Data Grid (NJDG), eCourts Services, GOV'T OF INDIA, https://njdg.ecourts.gov.in
[33] DoNotPay, *The World's First AI Lawyer*, https://www.donotpay.com
[34] Kashif Javed & Jianxin Li, *Artificial Intelligence in Judicial Adjudication: Semantic Biasness Classification*, 10 HELIYON e30184 (2024).
[35] Debra Cassens Weiss, Lawyer Faces Sanctions After Citing Fake Cases Generated by ChatGPT, ABA Journal (May 30, 2023), https://www.abajournal.com/news/article/lawyer-faces-sanctions-after-citing-fake-cases-generated-by-chatgpt.

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biases present in legal databases, both, intended and unintended. [36] AI primarily relies on quantitative factors like linguistic structures instead of substantive reasoning which often leads to carrying forward of the biases and the subsequent inconsistencies created.

There also exists a presumption around AI being the solution to judicial manipulation and cognitive biases. However, it merely replaces the cognitive bias with a semantic one. As for the judicial manipulation, AI is no less vulnerable than any other human. The weakness specifically lies in prompt engineering and adversarial manipulation. The same query, depending upon the way framed, can generate different legal conclusions. [37] While there is complete consistency within the answers provided by neutral prompts, such as the ones referred to by the Chandigarh HC judgements, a leading prompt with additional information can distort AI's interpretation beyond established precedents. This is a problem, since law has to be read with the facts concerned around the same, which can lead to major discrepancies in the conclusions derived.

"The Echo Chamber Effect", is when AI models adapt to past conversations with the user and try to reinforce pre-conceived biases leading to judicial decisions being influenced by prior, often unrelated interactions than fresh and neutral legal reasoning. This "adaptive bias" can lead to a possible scenario of hindering with fair rulings, since it prioritises earlier suggested interpretations.[38] However, it is still a truth that AI has been a boon more than a bane to the judicial system. The further section analyses the problems discussed in the paper earlier, and proceeds with certain suggestions that help ameliorate the situation with respect to the ethical concerns around integrating AI into adjudications.

5. Navigating an ethical integration of AI in Adjudication Processes.

The integration of Artificial Intelligence (AI) into legal processes presents a paradox of progress, while it offers unparalleled efficiency, it also raises fundamental concerns about judicial impartiality, legal reasoning, and ethical accountability. The findings of this study highlight the potential benefits and systemic inconsistencies associated with AI in adjudication, necessitating targeted legal and policy interventions to ensure that AI serves as a tool for justice rather than a threat to it. This section focuses on consolidating key issues highlighted in the earlier sections, and proposes solutions that align with existing frameworks, avoiding any radical changes.

5.1 Standardizing of AI generated legal outputs.

On of the most critical challenges lie in AI's vulnerability to prompt engineering and adversarial manipulation. This raise concerns around the legal insights provided by AI owing to the questionable prompt-induced-bias. AI tools used for the purpose of research must only operate on defined frameworks through the means of legislative safeguards that establish a benchmark guideline for AI-generated legal opinions ensuring a compliance with the rules of interpreting

[36] Ayesha Javed & Xueyang Li, Semantic Bias in AI Legal Judgments, 12 J. Artif. Intell. & L. 345, 350 (2024).
[37] Simon N. Young, Adversarial Attacks Against AI in Legal Applications, 58 Harv. J. L. & Tech. 123, 130 (2024).
[38]Karen Yeung, 'Hypernudge': Big Data as a Mode of Regulation by Design, 20 Info., Comm. & Soc'y 118, 125 (2017). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2807574.

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statutory provisions. They should also include metadata, displaying the trace of sources referred, while devising the conclusion it did, allowing the verification of their validity and credibility.

5.2 Regulating AI-Generated Legal Advice with Certification Mechanisms

Platforms like DoNotPay, have significantly contributed to increase access to legal information and remedies, however multiple incidents highlight the risk of factual inaccuracies provided by AI generated responses. The confidentiality concerns add on to the risks earlier existing, potentially harming the client more than helping them. To avoid the same, AI based legal advisory platforms shouldn't operate without a regulatory oversight, preventing any unauthorised practice of law. These platforms should also be explicitly classified as "non-lawyer services", with a disclaimer that their advice is "not a substitute to a legal practitioner and that users should verify AI generated content against actual statutes and legal precedents".

5.3 Mandating Human Oversight in AI-Assisted Adjudication

As seen in the cases of Chinese and Estonian courts, AI based adjudications often raise questions around due process and fairness, owing to lack in transparency and accountability, which reduces human intuition, a major component of fair rulings, into a secondary role. AI based adjudication additionally tends to replicate historical patterns of systemic legal discrimination, like in the case of COMPAS. Additionally, AI-generated rulings should be subject to challenge on grounds of algorithmic bias, ensuring that due process rights are not compromised.

5.4 Optimizing Judicial Efficiency Without Compromising Fairness

AI Case management systems, such as India's National Judicial Data Grid (NJDG), have demonstrated the ability of AI to streamline case tracking, reduce backlog and expedite minor legal disputes. However, automation in such cases often translates to a preferential treatment towards efficiency above substantive justice, which can marginalise justice within cases that require a higher involvement of the court. This model merely sees the cases as quantitative data, and processes it in a similar manner.

This can although evolve into a system which creates much more strategic case-lists. Leveraging the data obtained through pattern recognition, it can determine things like- what type of cases require longer proceeding periods, the disposal time for matters of different judges on different types of cases etc.; helping with a SWOT analysis of the performance of the benches, which can ideally optimise case scheduling, ensuring that dockets are structured in a manner that balances the efficiency with the substantive demands of justice.

5.5 Ensuring AI Remains an Assistive, not a Determinative Tool

While there do exist an ample of threats, AI has highly contributed to every sector, industry, field and institution. To completely neglect it, would be an outright loss to the legal sector. To utilise AI as an authority, however still remains controversial owing to the current development of AI. Until further progress is made, it is to be ensured that AI remains assistive, not determinative in nature. Their opinions should be considered non-binding and they should not be the sole reference utilised to validate information.

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6. Conclusion: The pathway forward

The injection of Artificial Intelligence (AI) into judicial functions is a milestone moment for legal systems across the globe. As AI-enabled tools enhance operational effectiveness, case management is simplified, and access to legal materials expands, they also raise critical ethical and procedural concerns. Judicial decision-making goes beyond the interpretation of statutes and application of case law; it involves moral judgment, discretion, and comprehension of human experience—capabilities AI, for the time being, cannot match.

This study identifies some of the most significant challenges: AI vulnerability to manipulation through prompt engineering, a risk of replicating existing biases, AI-authored legal opinion risks, and ethical challenges to AI-assisted judicial functions. Courts across jurisdictions—China's AI-driven Internet Courts, Estonia's AI-enabled small claims courts, and India's reluctant foray into transcription technologies—are pushing the envelope on AI integration; however, questions of due process, transparency, and judicial discretion remain unanswered.

Although AI can automate legal research, detect systemic inefficiencies, and provide data-driven insights, its introduction in adjudication has to be qualified with rigorous regulatory oversight. It is essential that courts and policymakers ensure AI is an adjunct tool and not a determinative force—one that is complementary to the capacities of human judges and legal professionals and not a replacement. The recommendations proposed in this paper call for incremental legal changes that align AI capabilities with prevailing legal norms, ensuring enhanced efficiency is not at the expense of fairness, impartiality, and procedural integrity.

In the coming years, the justice system will need to move forward with hope and prudence in addressing AI—embracing its potential while safeguarding against its constraints. It is the responsibility of lawmakers, judges, and legal scholars to make sure that AI is a defender of justice, not a disruptor. The future of AI in adjudication is not if AI will be integrated into the justice system, but how it will be regulated to preserve the fundamental values of justice.