CYBER SECURITY IN AI-DRIVEN JUSTICE SYSTEMS: THE BAR, THE BENCH AND OTHER ETHICAL CONCERNS[*]

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1. INTRODUCTION

Before addressing the subject matter of this paper, I would like to begin with a respectful admonition: technology can be a tool for emancipation as well as a tether for manipulation; the preferred use depends on who is controlling it. In similar terms, Prince Rogers Nelson offers an interesting piece of advice: "Technology is cool, but you've got to use it as opposed to letting it use you."[1]

No sector of human endeavour can pretend to be immune from the goods and ills of technology as industries globally now heavily rely on advanced digital machines for increased productivity, efficiency and, in some cases, unusual speed. The justice sector is not excluded from the movement. Right from the earliest age, the justice system had utilised the tools of its time: from the quill and parchment to the typewriter and then its inevitable resort to digital databases and processes.[2]

In present times, we are now confronted with the choice to embrace yet another 'overwhelming'[3] innovation, i.e the integration of artificial intelligence (AI) into the processes and procedures by which justice is dispensed and served. In developed countries, the initiation of lawsuits, case management, pre-trial proceedings, trial conduct, legal research, predictive analytics, judgments and rulings, and even sentencing recommendations

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[1] Curtis J. Bonk, et al, 'Preface: Reflections on the waves of emerging learning technologies' (2020) 68(4) Education Technology Research Development 1595-1612.

[2] See the colourful keynote lecture of Sir Brian Leveson, the President of the Queen's Bench titled Modernising Justice Through Technology delivered on 24 June 2015. < https://www.judiciary.uk/wp-content/uploads/2015/06/pqbd-technology-keynote-240615.pdf> accessed 8th August 2025.

[3] By default, judges resist or tag AI as "useless," "worthless," "a waste of time," and "not helpful" see Dasha Pruss, 'Ghosting the Machine: Judicial Resistance to a Recidivism Risk Assessment Instrument' (arXiv, 11 June 2023) <http://arxiv.org/abs/2306.06573> accessed 13 August 2025.

are increasingly delivered or aided by AI-driven systems.[4] These technologies have proven to guarantee unprecedented speed, ease, efficiency, and access to justice. Remarkably, in some jurisdictions, technology has enabled the possibility of having 'online courts', the effect of which is:

"… striking. Rather than merely optimising current methods of dispute resolution through new technologies, they have transformed the nature of the processes, along with the goals and values sought by way of these processes. This transformation makes them less adversarial and more efficient, dynamic, flexible, and accessible court systems"[5]

Yet, as historical philosophy reminds us, with great power comes great responsibility[6] and additionally, in the digital space, great vulnerability.[7] The same device that can help a judge sift through millions of authorities in a split second is capable of manipulation by malicious agents to invade privacy, breach confidentiality, distort documentary evidence, and/or compromise the sanctity and integrity of the judicial process. For the Nigerian Bar and the Bench, this is a hydra-headed concern as noted by the Chief Justice of Nigeria, Kekere-Ekun, CJN, thus:

"With the increasing digitization comes the responsibility to secure sensitive judicial information from cyberattacks, data breaches or misuse. Confidentiality is the lifeblood of trust in the judicial process. The robust protocols must be developed to safeguard data integrity and preserve the rights of litigants."[8]

For responsible and safe utility of AI, users must not harness its potential at the expense of human judgment, discretion where needed, and empathy as necessary. Further, considering the pervasiveness of cybersecurity threats, the use of AI must ensure continued and expected

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[4] David Uriel Socol de la Osa and Nydia Remolina, 'Artificial Intelligence at the Bench: Legal and Ethical Challenges of Informing - or Misinforming - Judicial Decision-Making through Generative AI' (2024) 6 Data & Policy e59.
[5] Ignacio Oltra Gras, 'Online Courts: Bridging the Gap Between Access and Justice' (2021) 10 Journal of Law and Jurisprudence <https://student-journals.ucl.ac.uk/laj/article/id/1214/> accessed 9 August 2025.
[6] E Paul Zehr, 'With Great Power Comes Great Responsibility - A Personal Philosophy for Communicating Science in Society' (2016) 3 eNeuro ENEURO.0200.
[7] N Helberger and others, 'Choice Architectures in the Digital Economy: Towards a New Understanding of Digital Vulnerability' (2022) 45 Journal of Consumer Policy 175.
[8] K.M.O Kekere-Ekun. CJN 'Justice in the Digital Age Leveraging Technology For An Efficient And Accessible Judiciary in Nigeria' <https://ir.unilag.edu.ng/bitstreams/78df6473-6751-4357-9b99-b5bb6574b4f2/download> accessed 9 August 2025.

security, transparency and ethics of our justice systems, especially considering the vulnerability of these systems where a single line of code can manipulate the scales of justice.

This paper examines the nature of AI, its growing use by both judges and lawyers across jurisdictions, the cybersecurity challenges it faces, and the ethical dilemmas that arise in its deployment within the judicial system. By exploring these interconnected and overlapping dimensions, the paper adopts a balanced approach recognizing AI's potential to revolutionize legal processes while highlighting the necessity for safeguards towards ensuring responsible use, fairness, accuracy, security, and public confidence. The paper concludes with recommendations for navigating the complex intersection of law, technology and ethics in an AI-driven judicial setting.

2. THE NATURE OF AI

Simply put, AI is a branch of computer science that deals with the creation of systems capable of performing tasks that would ordinarily require human intelligence.[9] Rawat, et al note that these tasks range from reasoning, learning, problem-solving, perception, natural language understanding, and to decision-making.[10]

While traditional software is regulated by pre-defined rules, AI systems, especially the ones built upon machine learning[11] and deep learning[12] are designed to increase the AI's functionality over time by learning from various data inferred, gathered or imputed into them.[13] In other words, while the traditional software are usually built without necessarily using personal data, AI systems are developed and trained using existing or predictive

[9] For other definitions of artificial intelligence, see Dimiter Dobrev, 'A Definition of Artificial Intelligence' (arXiv, 3 October 2012) <http://arxiv.org/abs/1210.1568> accessed 20 July 2025; Gilles E Gignac and Eva T Szodorai, 'Defining Intelligence: Bridging the Gap between Human and Artificial Perspectives' (2024) 104 Intelligence 101832; Homero Gil de Zúñiga, Manuel Goyanes and Timilehin Durotoye, 'A Scholarly Definition of Artificial Intelligence (AI): Advancing AI as a Conceptual Framework in Communication Research' (2024) 41 Political Communication 317.

[10] Naina Rawat, Artificial Intelligence (2024) , < https://www.researchgate.net/publication/380459283_Artificial_Intelligence> accessd 9 August 2025.

[11] Machine learning is a branch of AI that focuses on developing computer systems that can learn from data and improve their performance over time without being explicitly programmed for every specific task, see Kristian Kersting, 'Machine Learning and Artificial Intelligence: Two Fellow Travelers on the Quest for Intelligent Behavior in Machines' (2018) 1 Frontiers in Big Data 6.

[12] Deep learning is a specialized subset of machine learning that uses artificial neural networks, complex mathematical models inspired by the structure and function of the human brain, to process data and learn patterns at multiple levels of abstraction. See Yann LeCun, Yoshua Bengio and Geoffrey Hinton, 'Deep Learning' (2015) 521 Nature 436.

[13] Mohsen Soori, Behrooz Arezoo and Roza Dastres, 'Artificial Intelligence, Machine Learning and Deep Learning in Advanced Robotics, a Review' (2023) 3 Cognitive Robotics 54.

(personal) data.[14] The peculiarly-adaptive capacity of AI underscores its potency in complex[15] fields such as the justice system characterised by nuanced and routine decision-making enabled by the analysis and interpretation of vast legal materials.

AI systems predominantly function through algorithms i.e structured sets of instructions that enable machines to analyze patterns and draw conclusions from data.[16] For modern AI systems, especially in artificial neural networks,[17] these algorithms can routinely process large and complex volumes of datasets better than the capacity of human cognition, detecting correlations, trends, and anomalies with remarkable speed.[18] From a justice-delivery perspective, by this computational advantage, AI systems are enabled to automate legal document analysis,[19] predict outcomes of cases, especially in jurisdictions with a readily accessible database of court judgments[2021], and assist in judicial reasoning. However, it also introduces the "black box"[22] problem, where decision-making processes become opaque even to their creator and thereby making it difficult to explain or audit the rationale behind AI-generated references.

Understanding the nature of AI is essential to a dispassionate assessment of its potential benefits and risks in justice systems. Its assurances lie in speed, high percentage of accuracy[23], and consistency, while its risks are found in bias introduced during training data, vulnerability, manipulation, and a lack of human-faced moral reasoning, etc.

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[14] Vladislav V Fomin, 'The Shift from Traditional Computing Systems to Artificial Intelligence and the Implications for Bias' in John-Stewart Gordon (ed), *Smart Technologies and Fundamental Rights (Brill, 2020)* <https://brill.com/display/book/edcoll/9789004437876/BP000018.xml> accessed 13 August 2025.
[15] Dipo Dunsin and others, 'A Comprehensive Analysis of the Role of Artificial Intelligence and Machine Learning in Modern Digital Forensics and Incident Response' (2024) 48 Forensic Science International: Digital Investigation 301675.
[16] Noson S Yanofsky, 'Towards a Definition of an Algorithm' (2011) 21 Journal of Logic and Computation 253.
[17] Artificial Neural Networks (ANNs) are computational models inspired by the biological neural networks of the human brain. They consist of interconnected layers of simple processing units called **neurons** or **nodes**, which work together to solve complex problems like pattern recognition, classification, and prediction. See Su-Hyun Han and others, 'Artificial Neural Network: Understanding the Basic Concepts without Mathematics' (2018) 17 Dementia and Neurocognitive Disorders 83.
[18] Chiranjib Chakraborty and others, 'From Machine Learning to Deep Learning: Advances of the Recent Data-Driven Paradigm Shift in Medicine and Healthcare' (2024) 7 Current Research in Biotechnology 100164.
[19] Subinay Adhikary and others, 'Automated Attribute Extraction from Legal Proceedings' (arXiv, 18 October 2023) <http://arxiv.org/abs/2310.12131> accessed 13 August 2025.
[20] Nigeria may not benefit so much from this functionality because of the highly commercialised nature of our law reporting system for the appellate and total disregard for reporting low courts' decisions.
[21] Moses A Agana and Affiku Julius Akolo, 'A Model of a Legal Proceedings Portal for Nigerian High Courts' (2017) 7 Advances in Computing 63.
[22] Yavar Bathaee, 'The Artificial Intelligence Black Box and the Failure of Intent and Causation'.
[23] Dr Kathy McGrath, 'Accuracy and Explainability in Artificial Intelligence: Unpacking the Terms' Forty-Second International Conference on Information Systems, Austin 2021.

3. AI AND JUSTICE DELIVERY

Around the world, various judiciaries continue to engage AI to enhance judicial efficiency, transparency, and easier accessibility to their systems of administration of justice.[24] Notable examples are found in Estonia, China, and the United States, which are somewhat relatable instances of how AI integration can transform judicial processes while also highlighting critical challenges faced in embracing such innovations, as well as the imminent need to adequately address them.

3.1 Estonia

In Estonia, often regarded as the technology's 'avant-garde jurisdiction,'[25] AI has been considerably incorporated into justice delivery as Limante, et al note that:

"According to the Council of Europe European Commission for the Efficiency of Justice (CEPEJ) research measuring the functioning of the judicial system, in all three Baltic States the ICT deployment (Estonia's 7.86, Latvia's 7.57, Lithuania's 6.10) and usage (Estonia's 7.6, Lithuania's 5.4, Latvia's 5.12) indexes, measuring digital access to justice, case management and decision support, is above the Council of Europe median (4.16). Similar tendencies can be seen in the EU Justice Scoreboard 2024, which, inter alias, measures the digitalization of justice systems. According to it, in the use of digital technology by courts and prosecution services, Estonia is the first in the EU..."[26]

Further, AI plays a key role in case handling in Estonia**,** where it assists in managing case workflows from initiation to conclusion.[27] Automated systems routinely track the progress of each matter, flag pending actions, and ensure procedural timelines are met, thereby reducing administrative delays.[28] For case registration**,** AI-enabled platforms receive and process

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[24] Clement Guitton, 'Adoption of Artificial Intelligence in the Judiciary: A Comparison of 28 Advanced Democracies' (2025) 5 Discover Artificial Intelligence, 169 <https://link.springer.com/article/10.1007/s44163-025-00311-y> accessed 12 August 2025.
[25] Marta Gamito Cantero and Giulia Gentile, Algorithms, Rule of Law, and the Future of Justice: Implications in the Estonian Justice System. (Publications Office 2023) accessed 23 January 2025; Marju Himma-Kadakas and Ragne Kõuts-Klemm, 'Developing an Advanced Digital Society: An Estonian Case Study' in Sergey Davydov (ed), *Internet in the Post-Soviet Area: Technological, Economic and Political Aspects* (Springer International Publishing 2023) <https://doi.org/10.1007/978-3-031-32507-6_6> accessed 10 August 2025.
[26] Agne Limante and Monika Sukyte, 'Comparative Insights and Future Directions of AI in the Courts of the Baltic States' (2025) 33 International Journal of Law and Information Technology eaaf002.
[27] Tanel Kerikmäe, et al, 'Frontiers in AI Judiciary: A Contribution to Legal Futurology' (2022) 11(2) Acta Baltica Historiae et Philosophiae Scientiarum 55-75.
[28] Limante and Sukyte (n 28).

filings electronically, validating documentation and ensuring that necessary forms are complete before they reach the court's docket. This reduces clerical errors and allows staff to focus on more complex procedural issues. When it comes to assignment of cases to judges, Estonia employs algorithmic allocation systems designed to distribute cases impartially based on objective criteria such as caseload balance, case complexity, and subject matter expertise.[29] This reduces the risk of bias or manipulation in case distribution and enhances judicial efficiency. Speech recognition technology is also deployed in courtrooms to produce accurate, real-time transcriptions of proceedings. This not only supports transparency but also improves record-keeping, making it easier for judges, lawyers, and litigants to review what transpired during hearings.

Finally, AI aids in the publication and communication of cases to the public**.** Once judgments are finalized, the system can automatically prepare them for online publication, ensuring they are anonymized where necessary to protect privacy. It also facilitates public access to case summaries and decisions, reinforcing the principles of openness and accountability in the judiciary.[30] Estonia's experience shows that AI can enhance the speed, accuracy, and transparency of judicial processes when implemented within a robust legal and ethical framework. The lessons from Estonia are particularly relevant for countries exploring AI adoption in their courts, demonstrating that technological innovation, when carefully governed, can complement rather than compromise judicial independence.

3.2 China

Similarly, China has implemented AI-powered systems especially for the administration of criminal justice - the Shanghai AI-Assisted Criminal Case Handling System" (commonly referred to as the "206" system).[31] Describing how the system works, Wu, et al note:

"The "206" system, a pioneering initiative in AI-assisted legal adjudication directly supported by China's Central Political and Legal Affairs Commission (the core authority of China's legal system), is implemented through a multi-agency collaboration in Shanghai. Led by the

[29] Émile Chamberland, 'Artificial Free Thought: Automated Courts and the Independent Algorithm' in Charlotte van Oirsouw and others (eds), *European Yearbook of Constitutional Law 2023: Constitutional Law in the Digital Era* (TMC Asser Press 2024) <https://doi.org/10.1007/978-94-6265-647-5_9> accessed 13 August 2025.
[30] Viljar Peep, 'Digital Justice in Estonia', Zalnieriute, M.; Limante, A. "The Cambridge Handbook of AI and Technologies in Courts" (Cambridge University Press 2026) 33.
[31] Straton Papagianneas and Nino Junius, 'Fairness and Justice through Automation in China's Smart Courts' (2023) 51 Computer Law & Security Review 105897.

Shanghai High Court and involving the city's public security bureau, procuratorate, bureau of justice, and the world-leading AI solution provider iFLYTEK, this system represents an ambitious undertaking in modernizing judicial processes. Currently, under the vigorous advocacy of the Shanghai High Court, all pending criminal cases in Shanghai are being input into the "206" system, and all front-line legal practitioners, such as police, prosecutors and judges, are expected to employ the "206" system in their case handling and management processes, especially its Similar Case Recommendation ("SCR") function"[32]

Introduced to enhance the efficiency, accuracy, and integrity of criminal proceedings, the 206 system integrates AI into multiple stages of the criminal justice process in China. At its core, it serves as a comprehensive decision-support platform capable of reviewing case files, flagging inconsistencies, and recommending next procedural steps. By cross-referencing evidence with legal provisions, past judgments, and procedural requirements, the system helps identify gaps in evidence, ensure procedural compliance, and reduce wrongful convictions.[33]

3.3 The United States

Other notable examples are found in the United States, where AI tools are being used for risk assessments in bail and sentencing, albeit amid controversies over algorithmic bias and transparency.[34] Wenzelburger interestingly addresses the initiative thus: "Risk assessment tools based on algorithms have been called 'the new silver bullet of criminal justice reform', because 'they promise to decrease pretrial detention, increase the number of people on probation and parole, and lower the number of incarcerated people, that is, to do more good at less cost."[35]

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[32] Wanqiang Wu and Xifen Lin, 'Access to Technology, Access to Justice: China's Artificial Intelligence Application in Criminal Proceedings' (2025) 81 International Journal of Law, Crime and Justice 100741.
[33] Yaohui Jin and Hao He, 'An Artificial-Intelligence-Based Semantic Assist Framework for Judicial Trials' (2020) 7 Asian Journal of Law and Society 531.
[34] Alexandra Lyn, 'Risky Business: Artificial Intelligence and Risk Assessments in Sentencing and Bail Procedures in the United States' (Social Science Research Network, 16 December 2020) <https://papers.ssrn.com/abstract=3831441> accessed 10 August 2025.
[35] Georg Wenzelburger, Karen Yeung and Kathrin Hartmann, 'Smart Justice? Making Sense of the Rise of Algorithm-Based Pre-Trial Risk Assessment in Criminal Justice Through "Legal Models"' (2025) 4 Digital Society 48.

3.4 The United Kingdom

The UK judiciary has taken deliberate steps to accommodate AI by issuing formal guidance and running pilot programs to enhance productivity.[36] The judicial guidance It underscores the importance of verifying AI-generated content, safeguarding confidentiality, and maintaining accountability for output, even when using tools like Microsoft's Copilot Chat, which is now available securely to those logged into the eJudiciary system.[37] Meanwhile, the Ministry of Justice has launched pilot initiatives exploring AI's potential, such as: automated transcription and summarization tools in courts like the Immigration and Asylum Chamber, designed to streamline the preparation of judicial decisions, improve public access, and reduce reliance on external suppliers.[38]

For, document drafting and summarization, English judges, especially in lower courts, have been given cautious approval to use AI to draft opinions and summarize information.[39] However, full reliance is discouraged due to potential inaccuracies. A 2025 initiative expanded a pilot program employing AI-generated transcripts in civil and family courts, particularly to improve access for rape and serious sexual assault victims.[40] AI tools now generate hearing transcripts that are otherwise costly and time-consuming to produce manually. Future plans include case summarization and transformation of legal text into simpler, age-appropriate language. In the criminal justice system, tools like OASys and OGRS are utilized in sentencing to assess reoffending risk, blending algorithmic predictions with judicial discretion.[41]

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[36] 'Artificial Intelligence (AI) – Judicial Guidance' (*Courts and Tribunals Judiciary*, 15 April 2025) <https://www.judiciary.uk/guidance-and-resources/artificial-intelligence-ai-judicial-guidance-2/> accessed 13 August 2025.
[37] artificiallawyer, 'UK Courts Roll Out Microsoft Copilot For Judges, Update GenAI Rules' (*Artificial Lawyer*, 24 April 2025) <https://www.artificiallawyer.com/2025/04/24/uk-courts-roll-out-microsoft-copilot-for-judges-update-genai-rules/> accessed 13 August 2025.
[38] Nick Hilborne, 'From Dispute Resolution to Listing - MoJ Sets out AI Action Plan' (*Legal Futures*, 4 August 2025) <https://www.legalfutures.co.uk/latest-news/from-dispute-resolution-to-listing-moj-sets-out-ai-action-plan> accessed 13 August 2025.
[39] 'Judges in England and Wales Are given Cautious Approval to Use AI in Writing Legal Opinions' (*The Independent*, 8 January 2024) <https://www.independent.co.uk/news/ap-chatgpt-wales-england-london-b2474774.html> accessed 13 August 2025.
[40] Ministry of Justice, 'AI Action Plan for Justice' (*GOV.UK*) <https://www.gov.uk/government/publications/ai-action-plan-for-justice/ai-action-plan-for-justice> accessed 13 August 2025.
[41] Mia Debidin, *A Compendium of Research and Analysis on the Offender Assessment System (OASys)* (Ministry of Justice 2009).

3.5 Africa

Across Africa, judicial systems are increasingly adopting AI and digital technologies for justice delivery and to improve efficiency, transparency, and ease of access in their overall administration of justice.[42] While the deployment, pace and scope of adoption vary per country, these initiatives reflect a continent-wide political will towards modernizing court processes and overcoming long-standing challenges such as case backlogs, administrative inefficiencies, and limited access to legal information.

South Africa has been at the forefront of this transformation with the introduction of virtual courts**,** enabling remote hearings and reducing delays.[43] The South African judiciary has also implemented digital case management systems to track proceedings more efficiently, embarked on case backlog clearance programs, and promoted digitization in dispute resolution, thereby making justice more accessible and less encumbered by physical paperwork.[44] Kenya has pursued a broad-based digital strategy, commencing e-filing in all courts within Nairobi. An electronic Case Tracking System (CTS) has captured over 1.3 million cases, enabling judges, lawyers, and litigants to follow case progress online.[45] The Court Recording and Transcription System (CRTS) has been installed in 26 courtrooms, complemented by significant internet upgrades and ICT audits to strengthen cybersecurity.[46] Additionally, the Judiciary Advocates Management System (JAMS) offers a centralized platform for registration and management of lawyers.[47]

Malawi has adopted an electronic case management system**,** employed ICT to safeguard court records, and implemented digital tracking and retrieval of case files and thereby leading to

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[42] See UNESCO's Report on 'Advancing African Judicial Expertise in AI, Freedom of Expression, And' <https://www.unesco.org/en/articles/advancing-african-judicial-expertise-ai-freedom-expression-and-rule-law> accessed 13 August 2025.

[43] Izette Knoetze, 'Courtroom of the Future - Virtual Courts, e-Courtrooms, Videoconferencing and Online Dispute Resolution." De Rebus, October 2014:28 [2014] DEREBUS 200' <https://www.saflii.org/za/journals/DEREBUS/2014/200.html> accessed 10 August 2025.

[44] Tlou Maggie Masenya and Ntengenyane Khunjulwa, 'The Management of Digital Court Records for Justice Delivery in the South African High Courts' (2022) 40 Mousaion: South African Journal of Information Studies 17 pages.

[45] Ronald Agak, 'Smart Justice: Kenya's Legal System Embraces AI in a Rapid Digital Shift | Africanews' <https://www.africanews.com/2025/04/16/smart-justice-kenyas-legal-system-embraces-ai-in-a-rapid-digital-shift//> accessed 10 August 2025.

[46] Florence Ongojo, Joseph Theuri Gitonga and Angeline Wairegi, 'Leveraging AI in the Kenyan Judiciary: A Case for Utilizing Text Classification Models for Data Completeness in Case Law Meta Data in Kenya's Employment and Labor Relations Court' <http://hdl.handle.net/10625/61518> accessed 10 August 2025.

[47] Lawyers Hub, ' Artificial Intelligence And The Future Of Judicial Systems In Africa Report (2024) < https://www.lawyershub.org/Digital%20Resources/Reports/ARTIFICIAL_INTELLIGENCE_AND_JUDICIAL_SYSTEMS_IN_AFRICA_Report.pdf> accessed 10 August 2025.

greater efficiency and fewer delays in justice delivery.[48] Similarly, Botswana has embraced technology for case digitization, with electronic retrieval systems in the Gaborone Magisterial District reducing incidents of lost or misplaced files.[49]

In Tanzania, the judiciary has implemented a digital case management mechanism, an automated lawyers' management system**,** and integrated Government Electronic Payment Gateway (GEPG) facilities. Video conferencing is now available in all High Court centers, four High Court divisions, and seventeen prison centers, easing case registration, tracking, retrieval of proceedings and judgments, and ensuring that court fees can be paid through familiar everyday payment methods.[50]

Ghana has made considerable strides in modernizing its judicial operations through the deployment of an e-Justice system - a precursor to more effective AI integration.[51] As of mid-2024, 71,781 High Court cases were filed via the electronic environment, and 228 out of 468 courts were automated, with features such as direct transcription systems in operation.[52] The e-Justice platform has enabled users to file documents and make payments remotely, receive email notifications for adjournments, and benefit from electronic case allocation, docket storage, and real-time statistical reporting.[53] These digital tools not only streamline court administration, but also support accessibility and lay the groundwork for AI-powered functionality like predictive scheduling, document analysis, and virtual adjudication.

These few examples show that African countries are not merely digitizing existing processes but are laying the groundwork for AI integration in the near future. Electronic filing, virtual hearings, online payment systems, and real-time case tracking create the digital infrastructure

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[48] Winner Dominic Chawinga and others, 'Towards E-Judicial Services in Malawi: Implications for Justice Delivery' (2020) 86 THE ELECTRONIC JOURNAL OF INFORMATION SYSTEMS IN DEVELOPING COUNTRIES e12121.

[49] Tshepho Lydia Mosweu, 'Implementation of the Court Records Management System in the Delivery of Justice at the Gaborone Magisterial District, Botswana' (*CoLab*) <https://colab.ws/articles/10.1108%2Frmj-11-2017-0033> accessed 10 August 2025.

[50] Juma Mshana, E-Judiciary: A Step towards Transforming Tanzanian Legal Systems' (*ResearchGate*) <https://www.researchgate.net/publication/355041274_E-Judiciary_A_step_towards_transforming_Tanzanian_Legal_Systems> accessed 10 August 2025.

[51] noadmin, 'Balancing Justice in Pixels: Legal and Constitutional Implications of Virtual Court Sessions in Ghana' (*Noyam Journals*, 18 March 2024) <https://noyam.org/ehass20245310/> accessed 13 August 2025.

[52] 'Court Automation Facilitating Justice Delivery - Chief Justice' (*Graphic Online*, 3 August 2024) <https://www.graphic.com.gh/news/general-news/court-automation-facilitating-justice-delivery-chief-justice.html?utm_source=chatgpt.com> accessed 13 August 2025.

[53] Emmanuel Cudjoe, 'Technology Is Key to Access to Justice – Chief Justice' <https://judicial.gov.gh/index.php/publications/news-publications/js-latest-news/item/437-technology-is-key-to-access-to-justice-chief-justice?utm_source=chatgpt.com> accessed 13 August 2025.

that AI can later enhance, through predictive case analytics, automated scheduling, and intelligent legal research. The collective African experience demonstrates that, while technology alone cannot solve systemic legal challenges, it can significantly enhance efficiency, reduce case backlogs, and improve public access to justice when implemented with proper oversight, security safeguards, and sustained investment in digital literacy for judicial officers.

4. AI AND NIGERIAN JUDGES

Moving away from the theoretical use of AI-driven legal tools and their potential benefits to the judiciary, in this part, I analyse how Nigerian judges can use AI to enhance the efficiency of the various activities carried out by the courts and their staff. There is no gainsaying the Nigerian judiciary continues to grapple with challenges of case backlogs, administrative delays, and limited public access to judicial information attributable to lack or inadequacy of human, material and technical resources[54] While the CJN notes that incremental reforms have been made in recent years,[55] the pace of change remains far behind global and even regional trends in judicial digitization. To deliver justice that is both timely and accessible, Nigeria must not only digitize existing processes but also integrate AI into the following key judicial functions or services:

4.1 Electronic filing (e-filing) systems

The traditional manual court process filing system inherently involves active and conscious role-playing by many officials of the court in a ritual that consumes time and often results in avoidable delays, which ultimately slow down the administration of justice. Conversely, filing systems that are enhanced with AI would allow for seamless and user-friendly initiation of lawsuits. This is sometimes referred to as 'e-filing''digital filing', or smart filing.'[56] Fenwick defines e-filing as: 'the filing of information in electronic form, as opposed to paper

[54] CJ Ubanyionwu, 'Solving the Problem of Delay in Adjudication of Cases in Nigeria through Artificial Intelligence (AI)' (2025) 2 Journal of Customary and Religious Law 136.
[55] Kekere-Ekun (n 9).
[56] AD (Dory) Reiling, 'Courts and Artificial Intelligence' (2020) 11 International Journal for Court Administration <https://iacajournal.org/articles/10.36745/ijca.343> accessed 10 August 2025.

form.' [57]AI could automatically validate submitted documents, flag incomplete filings, and direct cases into the correct procedural tracks, reducing human error and administrative bottlenecks. While it is admitted that several courts in Nigeria have introduced what they describe as "e-filing," the reality is that many of these systems stop short of delivering the full benefits of digital filing.

In their current form, the self-styled 'e-filing' platforms used by some (if not most) courts in Nigeria often still require the physical submission of printed documents after online filing, this requirement that undermines the very essence of an electronic process. For context, on how documents should be submitted using e-filing' systems, the European Commission for the Efficiency of Justice guides that: "For the purposes of e-filing, all judicial documents should be processed solely in electronic form (as e- documents), respecting authenticity, integrity, and confidentiality."[58]

E-filing, in its true sense, is designed to eliminate the need for physical presence by enabling parties, lawyers, and court officials to initiate, process, and manage filings entirely online.[59] Where the system still demands that counsel or litigants travel to court premises to submit hard copies, it simply relocates existing inefficiencies into a hybrid model that remains slow, costly, and prone to human bottlenecks. A fully automated e-filing system should allow for the end-to-end electronic submission, payment, acknowledgement, and processing of all court documents.

Parties should be able to upload pleadings, affidavits, and exhibits directly to the court's secure portal, where they are automatically timestamped, assigned a case number, and routed to the appropriate registry without manual intervention. Judges and court staff should then be able to access these filings instantly through their own digital dashboards and when required, printed out for (hard) record purposes. The persistence of mandatory hard-copy submissions not only increases the workload of registry staff but also defeats the efficiency gains promised by digital transformation. Worse still, it imposes additional logistical and financial

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[57] William A. Fenwick and Robert D. Brownstone, 'Electronic Filing: What Is It - What Are Its Implications?' (2002) 19 Santa Clara High Tech. L.J. 181.
[58] European Commission for the Efficiency of Justice, 'Guidelines on Electronic Court Filing (e-filing) and Digitalisation of Courts' (2021) < https://rm.coe.int/e-filing-en/1680b2ca1c> accessed 10 August 2025.
[59] James E Cabral and others, 'Using Technology to Enhance Access to Justice' [2012] Harvard Journal of Law & Technology <https://www.semanticscholar.org/paper/Using-Technology-to-Enhance-Access-to-Justice-Cabral-Chavan/677c619f70dfe19fb0d585293282e8cf4916f0d3> accessed 10 August 2025.

burdens on litigants, especially those outside the metropolis, who must travel to file papers in person despite supposedly having "e-filed" them.

In a worst-case scenario**,** where physical copies are unavoidable (for instance, due to specific evidentiary requirements), the more rational approach would be to bill the parties the cost of printing at the point of e-filing. The court's system could automatically generate and print the documents on-site, ensuring uniform formatting and preventing unnecessary travel by litigants or counsel. By removing physical submission requirements, a properly implemented e-filing system would: reduce human bottlenecks at court registries; **s**horten filing-to-processing times, enabling faster case initiation; lower costs for litigants and lawyers, particularly those far from court locations; enhance record security, as filings would be digitally stored and backed up; and promote access to justice by allowing filings from anywhere with internet access.[60]

If the Nigerian judiciary is to benefit from the same efficiencies observed in other jurisdictions, it must move beyond partial digitization and embrace fully automated e-filing as a standard, not an aspiration. Anything less risks perpetuating the very delays, congestion, and inefficiencies that judicial technology is meant to solve.

4.2 Fully automated e-oathing process

In much the same way that Nigerian courts' current approach to e-filing falls short of true automation, the swearing and filing of affidavits in many courts still suffers from unnecessary human intervention at the back end. While some jurisdictions[61] have introduced partial digitization which allows litigants or counsel to initiate affidavit processes online, experience shows that the workflow often grinds to a halt because a court official must still manually verify, endorse, or "approve" the document before it becomes legally valid.

This partial automation undermines the entire rationale for introducing digital affidavit procedures in the first place. The essence of such systems is to remove the need for physical

[60] Omodele, Adeyemi Oyedele and Olubukola A. Olugasa, 'The Pros andCons ofTechnology inThe Judicial Process inLagos State, Nigeria' (2023) 13(1) African Journal of Humanities & Contemporary Education Research, 327.

[61] The Federal High Court, FCT High Court, Lagos, Rivers, Borno and Osun High Courts have all introduced different versions of e-affidavit. See https://fhc.gov.ng/e-affidavit-client-portal/; https://rivcomis.riversstateapps.ng/home/index.html; https://arms.fcthighcourt.gov.ng/ and https://affidavitosun.electroniccollectionsecg.com/ etc.

presence, speed up procedural steps, and allow litigants to complete sworn statements entirely online. When the process is interrupted by manual handling, litigants still face delays, registry congestion, and in some cases, the need to travel to court just to finalize what should have been completed in minutes.

A fully automated e-oathing system would expectably resolve these inefficiencies. Ideally, such a platform ought to allow a deponent to seamlessly complete and submit the affidavit form online; facilitate secure identity verification through biometric authentication using a national database, apply a digitally generated seal and timestamp the moment the affidavit is sworn, thereby producing a valid, court-recognized document without the need for manual endorsement; automatically transmit the sworn affidavit into the court's case management system, linking it to the relevant file without further human intervention. Continuing to rely on manual steps not only slows down the process but also creates opportunities for bottlenecks, errors, and even potential corruption and touting. [62] If a court official's presence is required for every affidavit to be "approved," the system is still tied to the pace, availability, and discretion of individuals rather than the instant efficiency of technology.

The real purpose of digital transformation is not simply to replace physical paper with digital documents, but to redesign processes so they are faster, more transparent, and less dependent on human gatekeeping. In an era where digital identity verification and secure electronic signatures are commonplace in banking, immigration, and incorporation, the Nigerian judiciary should not be trailing behind. If other sectors can securely authenticate individuals and process legally binding documents entirely online, there is no reason why affidavit swearing should remain tethered to manual back-end intervention.

4.3 Assignment of cases

Due to the large volumes of cases filed annually, one of the recurring administrative bottlenecks in the Nigerian judiciary, especially in Lagos State, is the delay in assigning newly filed cases to judges in the respective divisions**.** In many courts, the process remains largely manual, where, after a case is filed, administrative judges or designated court officials review the matter, determine its category, and assign it to a specific judge's docket. While

[62] The bottlenecks and delays have created brisk business for touts. See Chioma Unini, 'Touts Charging N10, 000 to Assist with Lagos E-Affidavit System' – Poor User Experience Breeds Exploitation at Court Premises' https://thenigerialawyer.com/touts-charging-n10000-to-assist-with-lagos-e-affidavit-system-poor-user-experience-breeds-exploitation-at-court-premises/#google_vignette accessed 10 August 2025

this approach ensures oversight, it often results in avoidable delays (sometimes stretching days, weeks or months) before cases are eventually fixed for mention.

This delay has a ripple effect on justice delivery.[63] Litigants, lawyers, and court staff remain in limbo while files await allocation. The unsavoury implication of this is that Administrative judges, already burdened with their judicial caseloads, must dedicate time and energy to reviewing each filing, a task that is repetitive, time-consuming, and susceptible to human error, personal whims or bias. By adopting AI for case assignment, the judiciary can drastically improve efficiency and reduce delays.[64] AI systems can be programmed to automatically assign cases at the point of filing, using pre-set parameters such as subject matter, court division, workload balancing, and randomised allocation rules to ensure fairness. This automated process can be completed in seconds, eliminating the waiting period currently associated with manual assignment.

Ubanyionwu shares the same sentiment, where he argues that: "AI can play a pivotal role in reducing such delays by automating case management and ensuring that cases are assigned and handled more efficiently. AI-driven systems can monitor the progress of cases, flagging those that have been unduly delayed, and providing recommendations for expedited processing. This would not only reduce the backlog of cases but also enhance the public's perception of the judiciary's effectiveness."[65] An AI-driven system also brings greater efficiency, transparency and accountability.[66] Assignment algorithms can be designed to prevent any undue influence in determining which judge hears a particular case, thereby strengthening public trust in the judicial process. Moreover, automated allocation would lighten the workload of administrative judges, freeing them to concentrate on their primary responsibility i.e delivering judgments and rulings in the cases before them.

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[63] Olalekan Bello and Cecile Ogufere, 'The Emerging Artificial Intelligence Legal-Judicial System's Interface: Assessing the State of Nigeria's Judicial System's Readiness for a Revolution' <https://figshare.le.ac.uk/articles/journal_contribution/The_Emerging_Artificial_Intelligence_Legal-Judicial_System_s_Interface_Assessing_the_State_of_Nigeria_s_Judicial_System_s_Readiness_for_a_Revolution/26053102/1> accessed 10 August 2025.

[64] Othuke Ononeme, 'The Role of AI in the Effective Dispensation of Justice in the Nigerian Judicial System – Brickmans Law' (18 June 2025) <https://brickmans-law.com/the-role-of-ai-in-the-effective-dispensation-of-justice-in-the-nigerian-judicial-system/> accessed 10 August 2025.

[65] Chima Josephat Ubanyionwu, 'The Paradigm Shift in The Adjudication of Cases in Nigeria Through Artificial Intelligence (AI): Issues And Challenges' (2024) 1(2) Nnamdi Azikiwe University Awka Journal of Private Property Law, 12.

[66] Chima Josephat Ubanyionwu, 'Solving the Problem of Delay in Adjudication of Cases in Nigeria through Artificial Intelligence (AI)' (2025) 2(1) Journal of Customary and Religious Law, 136.

4.4 Issuance and service of hearing notices

The Supreme Court has repeatedly emphasised the importance of hearing notice as the court's "jurisdictional competence to entertain the matter in the first place."[67] Experience has shown that the (non)service of hearing notices has extremely impacted the speed of court proceedings, as it is one of the most time-consuming and resource-intensive aspects of Nigeria's justice delivery system. Traditionally, this process relies heavily on manual preparation of notices, physical service through court bailiffs, and follow-up confirmations. The cumulative steps usually result in delays, missed hearings, and avoidable adjournments. In an era where technology can deliver instant communication across vast distances, this manual model is no longer just inefficient; it is obsolete. Interestingly, the Court of Appeal has already demonstrated that electronic issuance and service of hearing notices is both possible and effective. The court routinely sends such notices via email and telephone numbers provided by counsel or litigants, significantly reducing the time and cost associated with personal service.

This seamless procedure was applauded by the Supreme Court in ***A.P.C. v. Nduul*** that: "By virtue of section 5(c) of the Court of Appeal Practice Direction 2013, in furtherance of the need to ensure speedy dispensation of justice, electronic means may be employed by the court in order to inform counsel of urgent court and case event. Hence, the parties are expected to furnish the court with phone numbers and e-mail addresses of themselves or their counsel, provided that notices should be given at least forty-eight hours before the scheduled court date."[68]

However, this process can be further enhanced and scaled nationwide by integrating AI systems into the workflow which could: automatically generate hearing notices from the court's scheduling database the moment a date is fixed; personalize notices to include case-specific details, ensuring accuracy and reducing the risk of clerical errors; **i**nstantly dispatch notices via multiple channels (like email, SMS, secure online portals) and confirm delivery

[67] F.B.N. Plc v. Nazia and Bros. (Nig.) Ltd. (2023) 1 NWLR (Pt. 1864) 201 where the court held that: "Service of hearing notice on a party, notifying him of the date a matter is coming up in court, is of utmost importance because it is the service of hearing notice on the party that confers on the court the. Where a matter is adjourned to a date other than the date the parties had previous notice of hearing, the court has a duty to notify them of the subsequent adjournment. The court should not predicate its decision on mere assumption that a party must have been served with court process at one stage and that he should be aware of the subsequent hearing dates."

[68] (2018) 2 NWLR (Pt. 1602) 1.

using automated read receipts or network delivery reports; track non-delivery and trigger follow-up actions, such as alternative service methods, without requiring manual monitoring by registry staff and maintain a digital service log, complete with timestamps and proof of transmission, to serve as admissible evidence that service was properly effected.

Importantly, it must be emphasised that the use of AI to serve hearing notices would neither replace bailiffs nor judicial discretion or procedural safeguards. Instead, it would serve as an efficiency multiplier, ensuring that administrative tasks like notice issuance and service are carried out faster, more accurately, and with less dependence on human availability. Given the Court of Appeal's current success with electronic notices, the logical next step is to expand this practice to all levels of the judiciary, underpinned by AI systems that can operate 24/7, handle high volumes without fatigue, and eliminate the bottlenecks inherent in manual service.

4.5 Using AI to Minimize Clerical Errors in Judgments and Rulings

The slip rule exists as an important corrective tool in the judicial process. It allows courts to amend accidental slips, omissions, or clerical errors in their decisions without reopening the merits of the case. Commenting on the rule, the Court of Appeal in *Holborn (Nig.) Ltd. v O.C.C. Ent. Ltd* noted that: "The slip rule envisages the correction or amendment of clerical mistakes and errors arising from accidental slips or omissions."[69] Inherently, this rule was conceived as an anticipatory safeguard - a recognition that human beings, no matter how meticulous, are prone to minor errors when producing complex legal documents. In today's Nigerian judiciary, the slip rule remains necessary as the scale of clerical errors has become more pronounced. Judges are often burdened with heavy caseloads**,** producing multiple lengthy rulings and judgments within tight timelines.

As a result, it is not uncommon to find typographical mistakes, misplaced punctuation, or inconsistent formatting in certified copies of judgments. In some cases, the publication or release of judgments is delayed because judges spend valuable time painstakingly proofreading manuscripts and proceedings to ensure accuracy. While such diligence is commendable, it also means that precious judicial time, one of the scarcest resources in the justice system, is being consumed by a task that technology can perform with speed and precision. In a study conducted by Al Sawi and Alaa on 'editors' and proofreaders'

[69] (2015) 11 NWLR (Pt. 1471) 451.

perceptions of AI tools in editing and proofreading, they discovered that: " …all participants were found to be users of AI tools in editing and proofreading and agreed that these tools are beneficial to their work." [70]

AI-assisted proof-reading tools,[71] trained on (legal language and) formatting rules, can: automatically scan judgments and rulings for typographical and grammatical errors, flagging inconsistencies for human review; detect omitted references to case law, statutes, or paragraph numbering, ensuring a coherent and professional final product; maintain the legal meaning and tone of the judgment while improving structural clarity; offer batch processing capability, allowing multiple judgments to be checked simultaneously, thereby reducing turnaround time.[72] Importantly, using AI would not and should not replace judicial oversight. Final approval of any AI-suggested corrections would remain with the judge to preserve judicial responsibility and integrity. However, by automating the identification of errors, AI can transform proofreading from a boring, slow, manual bottleneck into a fast, reliable quality-control step.[73] In the same way that the slip rule was a forward-looking innovation in its time, the integration of AI into judgment preparation can be the next anticipatory measure and thereby reduce clerical mistakes to the barest minimum while freeing judges to focus on the intellectual substance of justice delivery.

4.6 Harnessing AI to Streamline Manuscripts of Judgments and Rulings

In many Nigerian courts, the typesetting of manuscripts of judgments remains heavily dependent on manual processes. Some judges still write their judgments and rulings in longhand on paper before passing them to their secretaries for typing.[74] This approach, while traditional, significantly extends the time between the completion of a decision and its formal delivery. Secretaries are often burdened with the painstaking task of typing voluminous

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[70] Islam Al Sawi and Ahmed Alaa, 'Navigating the Impact: A Study of Editors' and Proofreaders' Perceptions of AI Tools in Editing and Proofreading' (2024) 4 Discover Artificial Intelligence 23.
[71] For example, tools like Grammarly, PerfectIt, QuillBot, Trinka, Hemingway Editor, Microsoft Co-Pilot, Deep seek and ChatGPT can come in handy in proofreading draft judgments.
[72] Mark J Davenport, 'Enhancing Legal Document Analysis with Large Language Models: A Structured Approach to Accuracy, Context Preservation, and Risk Mitigation' (2025) 15 Open Journal of Modern Linguistics 232.
[73] Mohamed Khalifa and Mona Albadawy, 'Using Artificial Intelligence in Academic Writing and Research: An Essential Productivity Tool' (2024) 5 Computer Methods and Programs in Biomedicine Update 100145.
[74] Chi Johnny Okongwu, Samuel Ugbo and Ezinwanne Anastasia Nwaobi, 'The Legal Framework for Judicial Review in Nigeria' (2022) 6 African Journal of Law and Human Rights <https://journals.ezenwaohaetorc.org/index.php/AJLHR/article/view/2149> accessed 10 August 2025.

handwritten documents which sometimes run into dozens of pages, before the proofreading and final formatting stages can begin.

The integration of AI into this workflow offers an opportunity to drastically reduce the time, cost, and human labour involved. AI-powered handwriting recognition tools can now scan handwritten judgments or proceedings and instantly convert them into editable text.[75] This means that instead of retyping from scratch, secretaries or the judges themselves can scan the handwritten pages, automatically generate a digital draft, and proceed directly to proofreading and editing. This "short-circuits" the traditional typing process, saving valuable hours or even days of work.

In addition, AI-driven PDF-to-Word conversion can be employed to make existing scanned or locked judgments instantly editable without retyping. This is particularly relevant for reproducing older judgments, responding to slip rule corrections, or preparing excerpts for appellate review. By retaining formatting and structure, these tools ensure the integrity of the original document while allowing for quick and precise updates. The benefits extend further when combined with voice-to-text transcription technology**.** Court proceedings, oral rulings, and dictations can be transcribed in real time by AI systems, producing accurate and speaker-tagged transcripts within minutes. This eliminates the backlog caused by waiting for manual transcription and ensures that court records are available almost immediately after a hearing.

The combined use of AI for handwriting-to-text conversion**,** PDF-to-Word transformation, and voice-to-text transcription would not only cut down administrative delays but also improve record accuracy, facilitate faster dissemination of judgments, and enhance overall judicial efficiency. While such technology must be deployed with robust cybersecurity safeguards to protect sensitive court information, the potential gains in speed, accessibility, and transparency are undeniable. By adopting these solutions, the Nigerian judiciary can bridge the gap between traditional judgment writing practices and the demands of a modern, technology-driven justice system, ultimately improving service delivery to litigants, their counsel and the public.

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[75] Ahmed Shaker Alalaq, 'The AI Revolution in the World of PDFs: From Reading Texts to Understanding Content' <https://www.authorea.com/doi/full/10.22541/au.175382396.62463891?commit=5ce980971dfc0c211ff2c077308a4601a1a54f2d> accessed 10 August 2025.

4.7 Generative AI as a Tool for Judicial Drafting, Research, and Administrative Efficiency

The work of a judge extends far beyond presiding over trials and delivering judgments. It encompasses a wide range of administrative, research, and drafting responsibilities, many of which are routine but time-consuming.[76] This explains why some Nigerian judges have appointed legal research assistants to aid the research segment of their judicial duties.[77] With the emergence of Generative Artificial Intelligence (GenAI) [78] - (i.e AI systems capable of creating text, summarising documents, and providing structured suggestions) the judiciary has a powerful opportunity to modernise its workflow and significantly enhance efficiency.[79]

GenAI can be applied to routine drafting tasks such as preparing standard court orders, administrative directives, notices, and acknowledgements. These are often repetitive documents that follow predictable formats and could be generated in seconds, freeing judicial officers and their support staff to focus on more substantive legal analysis and decision-making.[80] Beyond routine drafting, judges can use GenAI to review and refine documents. AI systems can highlight inconsistencies, flag possible omissions, check formatting compliance, and ensure that language is clear and concise. For legal research, GenAI can assist by rapidly scanning vast legal databases, summarising relevant case law, and suggesting possible authorities or lines of argument, which are tools that can save hours of manual research time.

The potential uses are not limited to judicial decisions. Judges frequently engage in public speaking, training sessions, and conferences, and GenAI can help prepare these engagements. It can write presentations, propose topics to cover, and even compose or update judicial profiles for official publications or institutional records. On the administrative side, GenAI offers solutions for composing, summarising, and prioritising emails, allowing judges to

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[76] In Unity Bank Plc v. Igala Constr. Co. Ltd. (2021) 10 NWLR (Pt. 1785) 407, he court acknowledged the need for judicial research thus: "The court can rely on any authority whether cited by parties or discovered in the course of its own research in arriving at a decision."

[77] Precious Fasuyi, Yewande Fatoki and Okpoi Elade-Ebi Godwill, 'Appraisal of the Role of Legal Research Assistant to Judges in the Nigerian Judicial Sector' (2024) 1 LexScriptio A Journal of the Department of Jurisprudence and Public Law 124.

[78] Sandeep Singh Sengar and others, 'Generative Artificial Intelligence: A Systematic Review and Applications' (2025) 84 Multimedia Tools and Applications 23661.

[79] Useful examples are: Grammarly, PerfectIt, QuillBot, Trinka, Hemingway Editor, ChatGPT, Google Gemini, Midjourney, Adobe Firefly, Stable Diffusion, GitHub Copilot and Recraft etc.

[80] Mian Johar Imam, 'The Role of Generative Artificial Intelligence in Judicial Decision-Making Process' (*ResearchGate*, 27 July 2025) <https://www.researchgate.net/publication/392014650_The_Role_of_Generative_Artificial_Intelligence_in_Judicial_Decision-Making_Process> accessed 10 August 2025.

focus on urgent matters first. It can transcribe and summarise meetings or deliberations, providing ready-to-use minutes. Similarly, it can draft memoranda, condensing lengthy discussions into clear, actionable documents.[81] The integration of GenAI into the judiciary's work processes does not mean replacing judicial reasoning or human discretion. Instead, it serves as an efficiency multiplier, automating repetitive tasks, enhancing document accuracy, and providing well-organised information for informed decision-making

4.8 Publicity and availability of certified judgments

Despite the existence of statutory and regulatory provisions on the timeframe for delivery of judgments, a recurring problem faced by litigants and their counsel in the Nigerian judicial system is the occasional delayed release of court decisions and limited accessibility to certified true copies of such decisions.[82] For context, I do not know of any Nigerian court where one can apply for certified copies of its decisions online, even when one applies at the respective court's registry; such a request is sometimes delayed. This delay often frustrates litigants and legal practitioners alike and thereby impeding the swift administration of justice.[83] To address these challenges, the judiciary can harness the power of AI to streamline the process of producing and disseminating certified judgments without compromising integrity.

Considering the usual stress and bottlenecks around application and access to certified judgments, AI-driven systems can automate and ease the verification, certification, and digital publication of judgments, drastically reducing the time and human effort traditionally required.[84] Moreover, by integrating secure online platforms, these certified judgments can be made accessible instantly from anywhere in the world, eliminating the need for physical visits to court registries or cumbersome paper-based requests while also boosting the courts' revenue drive.

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[81] ibid.
[82] C Okpaluba, 'Delay in Delivering Judgment or a Case of "Washing" Judicial "Dirty Linen in Public"? Reflections on Myaka v S' (2013) 38 Journal for Juridical Science 106.
[83] Alfred Olufemi, 'Special Report: How Extortion, Delay in Getting Court Judgments Frustrate Justice in Nigeria' <https://www.premiumtimesng.com/news/headlines/459604-special-report-how-extortion-delay-in-getting-court-judgments-frustrate-justice-in-nigeria.html?tztc=1> accessed 11 August 2025.
[84] Jeremy Barnett and others, 'Judicial AI Technology and ODR The Impact of AI and Emerging Technologies on the Judiciary, Courts and Justice' (Social Science Research Network, 3 March 2025) <https://papers.ssrn.com/abstract=5241272> accessed 11 August 2025.

Internationally, there are notable examples where AI and digital platforms have transformed access to judicial decisions. In the United Kingdom, the British and Irish Legal Information Institute (BAILII)[85] provides free, public access to court judgments, making the legal process more transparent and accessible.[86] Similarly, in the US, there are many free platforms where court judgments are easily accessible.[87] Also, while South Africa operates the Southern African Legal Information Institute (SAFLII)[88], and Kenya maintains its e-justice portals (kenyalaw.org/caselaw) both of which ensure that judgments are readily available online.[89] These platforms not only promote transparency and accountability but also facilitate legal research and reduce administrative burdens on court staff.[90]

By adopting similar AI-enabled digital repositories, the Nigerian judiciary can significantly enhance efficiency, promote transparency, and improve public trust in the justice system, which currently suffers from a deficit.[91] Such technological advancement will also align Nigeria with global best practices in judicial administration, enabling timely access to legal precedents and judgments, which are fundamental to the rule of law.

5. EMBRACING AI FOR ENHANCED LEGAL PRACTICE

Historically, lawyers have been revered for their ability to craft meticulous legal documents, interpret complex statutes, and provide counsel rooted in deep expertise.[92] These days, the legal profession stands at a pivotal crossroads, where tradition meets technological

[85] Jules Winterton, 'BAILII: Judgment Day and Beyond' (2022) 22 Legal Information Management 73.
[86] Cynthia S Fellows, Philip Leith and Joe Ury, 'Assessing BAILII in 2012' (2012) 12 Legal Information Management 158; P. Leith, & C. Fellows, ' BAILII: Legal Education and Open Access to Law' (2013) 4(1) European Journal of Law and Technology, 1.
[87] Malte Ostendorff, Till Blume and Saskia Ostendorff, 'Towards an Open Platform for Legal Information', *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries in 2020* (2020) <http://arxiv.org/abs/2005.13342> accessed 11 August 2025.
[88] See Graham Greenleaf, 'Free Access to Legal Information, LIIs, and the Free Access to Law Movement' (Social Science Research Network, 20 October 2011) <https://papers.ssrn.com/abstract=1960867> accessed 11 August 2025; Elizabeth Moll-Willard, 'The Use and Perceptions of Open Access Resources by Legal Academics at the University of Cape Town (UCT) in South Africa' (2018) 6 Journal of Open Access to Law <https://ojs.law.cornell.edu/index.php/joal/article/view/78> accessed 11 August 2025.
[89] Teddy Musiga, 'Reflections on Emerging Practices and Developments in the Field of Law Reporting: Lessons from Kenya' (2019) 4 Southern African Journal of Policy and Development <https://scholarship.law.cornell.edu/sajpd/vol4/iss2/7>.
[90] Peter Winn, 'Online Court Records: Balancing Judicial Accountability and Privacy in an Age of Electronic Information' (2004) 79 Washington Law Review 307.
[91] Philip Aka, 'Judicial Independence under Nigeria's Fourth Republic: Problems and Prospects' (2015) 45 California Western International Law Journal <https://scholarlycommons.law.cwsl.edu/cwilj/vol45/iss1/2>.
[92] Ann Sinsheimer and David Herring, 'Lawyers at Work: A Study of the Reading, Writing, and Communication Practices of Legal Professionals' (2016) 21 Legal Writing: The Journal of the Legal Writing Institute 63.

innovation. However, as the demands of the modern legal landscape evolve, so too must the tools and methodologies employed by legal professionals. AI has emerged as a transformative force across various industries, and the legal sector is no exception.[93] From automating routine tasks to providing advanced analytics, AI offers lawyers the opportunity to enhance efficiency, reduce operational costs, and deliver more precise and timely services to clients. In this part, I analyse the multifaceted ways AI can augment legal practice in Nigeria, exploring its potential to streamline workflows, bolster decision-making processes, and redefine client interactions. By examining current applications and future possibilities, we aim to provide a comprehensive overview of how AI can be seamlessly integrated into legal operations, ensuring that lawyers not only keep pace with technological advancements but also harness them to their advantage.

5.1 Amplifying Lawyer Branding with AI

In a study conducted by Manea and Tescașiu[94]analyzing clients' perceptions of lawyers' personal brands, key brand elements emerged, namely: the lawyer's name**,** image**,** slogan**,** professional experience, and reputation, all of which clients value highly. Yet achieving these elements is only part of the equation; equally important is the effective presentation and clear articulation of these professional attributes. Building a strong personal brand requires not just possessing these qualities but communicating them compellingly. AI tools can help lawyers craft a polished, consistent visual presence across platforms.

Lawyers could utlitize AI for professional headshots for their Firm's website, social media and other engagements. AI-generated headshots offer fast, cost-effective alternatives to traditional photography. It is, however, advised that artificial images should be used thoughtfully, perhaps for abstract visuals or marketing collateral, while retaining genuine headshots for client-facing profiles to maintain trust.

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[93] Enas Mohamed Ali Quteishat, 'Exploring the Role of AI in Modern Legal Practice: Opportunities, Challenges, and Ethical Implications' (2024) 20 Journal of Electrical Systems 3040.
[94] Georgiana-Gabriela Manea Moldovan and Bianca Tescașiu, 'Identifying and Measuring the Importance of the Lawyer's Personal Brand Elements – A Quantitative Research' (2023) 17 Proceedings of the International Conference on Business Excellence 314.

A recent repost shows that a large number of law firms now engage AI for content creation and sundry matters. According to the 2024 Artificial Intelligence TechReport by the American Bar Association, 30.2% of lawyers reported that their offices were currently using AI-based technology tools, with usage rates being highest among firms employing 500 or more lawyers at 47.8%.[95] Establishing a strong professional voice is easier with AI-driven content tools, which can convert personal insights into blog posts, social media updates, or newsletters in your authentic tone.[96] Law firms can also use AI for content like client alerts, social posts, or firm blogs, powered by sentiment analysis and scheduling tools to enhance visibility and branding efforts. AI could help lawyers get discovered and stay relevant. Platforms like LinkedIn reward profiles optimised with keywords, rich summaries, and active engagement. AI tools can suggest keywords, craft headlines, and help maintain consistent activity for improved search visibility on those platforms. Strong personal brands lead clients and peers to recognise a legal professional as an authority, opening doors to referrals, speaking opportunities, and internal advancement.[97]

For job-seeking lawyers, AI can refine your professional documentation to highlight strengths and/or weaknesses.[98] Such digital tools can help draft concise, compelling summaries by extracting career highlights, relevant metrics, and personal stories for CVs or bio profiles. This automation ensures clarity, consistency, and alignment between your CV, LinkedIn, and other professional platforms and thereby reinforcing the professional's personal brand and ease of recognition.[99]

5.2 Harnessing AI for Clientele Management

[95] '2024 Artificial Intelligence TechReport' <https://www.americanbar.org/groups/law_practice/resources/tech-report/2024/2024-artificial-intelligence-techreport/> accessed 11 August 2025.
[96] AV Rezaev and ND Tregubova, 'The Possibility and Necessity of the Human-Centered AI in Legal Theory and Practice' (2023) 1 Journal of Digital Technologies and Law 564.
[97] Sergey Gorbatov, Svetlana N Khapova and Evgenia I Lysova, 'Get Noticed to Get Ahead: The Impact of Personal Branding on Career Success' (2019) 10 Frontiers in Psychology 2662.
[98] Emma Wiles, Zanele Munyikwa and John Horton, 'Algorithmic Writing Assistance on Jobseekers' Resumes Increases Hires' [2025] Management Science <https://pubsonline.informs.org/doi/10.1287/mnsc.2024.04528> accessed 11 August 2025.
[99] Ehsan Alinaghian & Iranaya Dewanti Budi, 'Leveraging AI for Enhanced Personal Branding on LinkedIn: Implications of User Engagement and Trust' (Masters Thesis, May 2024, Lund University)

According to Harvard Business Review,[100] it could be 25 times more expensive to acquire a new client than to retain the existing ones, hence, lawyers should remarkably prioritize client management in their business models. For the contemporary lawyer, AI is transforming not just legal drafting or case law research but equally reshaping how lawyers manage clients, engage them meaningfully, formalize engagements, and maintain records. For clientele management, contemporary AI tools have revolutionized initial client interactions. They now handle inquiries, qualify leads, schedule appointments, and provide 24/7 responses and thereby boosting responsiveness and client satisfaction.[101]

Law Firms now use AI to synchronise personalized outreach, such as dynamic email campaigns and behaviour-triggered communications, which helps nurture leads effectively.[102] With the use of AI, Law Firms can streamline clients' intake and onboarding, automating form responses, document collection, scheduling, and notification workflows. This minimizes errors and accelerates the onboarding process. Dynamic document automation tools allow lawyers to generate customized engagement letters from templates using questionnaires and thereby freeing up time while ensuring precision and consistency.[103] Modern practice management platforms offer robust capabilities for document storage, client intake, calendaring, billing, and contact databases, all cloud-enabled for seamless access and management. By incorporating AI into these critical operational areas, law firms can deliver more consistent, efficient, and client-focused services and thereby enabling lawyers to shift their attention toward high-value strategic and advisory roles.[104]

5.3 Leveraging AI for Routine Legal Tasks

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[100] Amy Gallo, 'The Value of Keeping the Right Customers' *Harvard Business Review* <https://hbr.org/2014/10/the-value-of-keeping-the-right-customers> accessed 13 August 2025.
[101] Abid Haleem, Mohd Javaid and Ravi Pratap Singh, 'Exploring the Competence of ChatGPT for Customer and Patient Service Management' (2024) 2 Intelligent Pharmacy 392.
[102] Stefanie M. Marrone, 'Email Marketing Is Still Relevant for Successful Law Firms' <https://natlawreview.com/article/how-to-create-successful-email-marketing-strategy-your-law-firm> accessed 11 August 2025.
[103] Ann, 'Embracing Legal Document Automation—the Benefits Are Many' (*Legal Insights Europe*, 8 November 2019) <https://legalsolutions.thomsonreuters.co.uk/blog/2019/11/08/embracing-legal-document-automation-the-benefits-are-many/> accessed 13 August 2025.
[104] Breno Niero, 'AI-Law Firms of the Future. The Integration of Artificial Intelligence and Other Cutting-Edge Technologies for Value Creation' (*ResearchGate*) <https://www.researchgate.net/publication/370716693_AI-Law_Firms_of_the_future_The_integration_of_artificial_intelligence_and_other_cutting-edge_technologies_for_value_creation> accessed 11 August 2025.

Routine tasks can be quite monotonous, repetitive and boring; hence, AI could be used by Law Firms to extract information from emails or client forms, set up contacts and matters, draft routine communications, and even answer questions using a firm's corporate data, making client onboarding significantly more efficient. Dedicated AI greatly simplifies the drafting of engagement letters, letters of demand, cease and desist and other standard firm communications.[105] AI systems can generate customized letters using templates populated with client data, ensuring consistency and compliance with regulations. Generative AI (e.g., ChatGPT, Microsoft Copilot) enables lawyers to draft routine letters, internal memos, or client updates quickly, freeing time for substantive work.[106] For record keeping, AI can automatically categorize, summarize, and file documents according to designated categories. AI excels at automating repetitive, rule-based tasks, like drafting or filing, allowing lawyers to allocate their expertise to nuanced, high-impact matters.[107]

5.4 Harnessing AI for Smarter Case Management and Diarising in Legal Practice

AI is increasingly becoming a transformative force in legal workflows. Among its most promising applications are case management and diary (diarising) functions. These are tasks in law practise usually bogged down by repetitive, time-intensive administrative burdens. By integrating AI, lawyers can drastically enhance efficiency, accuracy, and strategic focus.[108]

AI-powered systems can revolutionize how cases are managed from inception to conclusion. AI tools can automate conflict checks, audit trail logging, and file initialisation (i.e tasks that are foundational but time-consuming), thus reducing errors and speeding up the onboarding process. Diarizing, tracking obligations like hearings, filings, and meetings, can be effectively managed by AI. Laws could use AI tools to synchro-analyse multiple calendars[109], learn how tasks are performed and optimise scheduling. They automatically block meetings, prioritize

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[105] Thomson Reuters, 'Generative AI Use Provision for Engagement (Retainer) Letter' (*Practical Law*) <https://uk.practicallaw.thomsonreuters.com/w-043-9771?transitionType=Default&contextData=(sc.Default)&firstPage=true> accessed 11 August 2025.

[106] Colleen V. Chien and Miriam Kim, 'Generative AI and Legal Aid: Results from a Field Study and 100 Use Cases to Bridge the Access to Justice Gap' (Social Science Research Network, 14 March 2024) <https://papers.ssrn.com/abstract=4733061> accessed 11 August 2025.

[107] Audrey Zhang Yang, 'AI in Contract Drafting: Transforming Legal Practice' (*Richmond Journal of Law and Technology*, 22 October 2024) <https://jolt.richmond.edu/2024/10/22/ai-in-contract-drafting-transforming-legal-practice/> accessed 11 August 2025.

[108] Matt Ryan, 'Case Management: Why Doesn't Every Law Firm Use It?' < https://www.legalfiles.com/wp-content/uploads/2016/08/Why-Doesnt-Every-Firm-Use-CMS.pdf> accessed 13 August 2025.

[109] CMS, Outlook, Google Calendar.

tasks, and suggest efficient daily plans tailored to individual workflows. Integrated AI can monitor critical dates (e.g., court deadlines, filing schedules) and proactively send reminders or prepare filings in advance, minimizing missed deadlines and ensuring compliance.

5.5 AI for Precedent-Based Reasoning

Lawyers thrive on precedent by systematically analysing earlier decisions/processes to guide current legal reasoning.[110] AI-driven tools transform that process. Modern systems can sift through massive legal databases to retrieve relevant cases far beyond what manual research permits.[111] AI tools now contextualize precedents, strengthening argument development and saving precious time. Given precedent-heavy frameworks, lawyers often draft documents based on template clauses and historical case structures. AI significantly enables this through automated document generation, which reduces drafting time by 60–70% in standardized legal agreements.[112] In recent times, Gen AI[113] enables lawyers to generate initial drafts from templates quickly, freeing them to focus on higher-level legal analysis, but not without its own set of challenges.

When clients instruct their lawyers to review documents embodying agreements, lawyers routinely compare and interrogate these clauses against established norms and precedents. AI tools automate many of these tasks by accurately flagging risky or non-standard clauses and automating the redlining process, drastically reducing turnaround time.[114]

5.6 Enhancing Legal Research Efficiency Through AI

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[110] Sebastian Lewis, 'Precedent and the Rule of Law' (2021) 41 Oxford Journal of Legal Studies 873.
[111] LexisNexis reports that 82% of lawyers use or plan to use AI tools to speed up legal research and drafting, referencing precedents with far greater efficiency than traditional methods. In Nigeria, there is no publicly available data on the percentage of lawyers that use AI tools for legal research, but majority predominantly rely on electronic law reports for their legal research, see Stephen Okangla, 'The Impact of Technology on Legal Practice in Nigeria' (Social Science Research Network, 5 March 2025) <https://papers.ssrn.com/abstract=5166449> accessed 11 August 2025
[112] 'How AI Automation Cut Contract Review Time by 60% for Law Firms' (*flowgenius*) <https://www.flowgenius.ai/blogposts/how-ai-automation-cut-contract-review-time-by-60%-for-law-firms?utm_source=chatgpt.com> accessed 12 August 2025.
[113] e.g., Copilot, ChatGPT-powered tools.
[114] In practice, tools like Ivo and Luminance come in handy when reviewing complex contract.

The role of a lawyer, whether serving as a solicitor or advocate, necessitates extensive and meticulous research.[115] Traditionally, this process has been time-consuming, often hindered by the sheer volume of resources that require thorough examination. However, recent advancements in AI are transforming this landscape, offering innovative solutions to streamline legal research. AI-powered tools[116] are now designed to assist legal professionals in navigating vast databases efficiently. These platforms utilize natural language processing and machine learning algorithms to quickly identify relevant case law, statutes, and legal precedents, significantly reducing the time spent on research tasks.

A landmark study highlighted by Forbes provides empirical evidence that AI tools can enhance the quality of legal work by up to 28% and improve lawyers' efficiency by up to 140%.[117] This underscores the potential of AI to not only expedite research processes but also elevate the standard of legal analysis.

From a Nigerian perspective, lawyers can relate to the capacity of the search functionality used by the various electronic law reports[118] to sift through large volumes of judgments to provide the users with a variety of options based on the keywords entered. In this regard, Kolade-Faseyi provides a rich analysis of some AI-powered solutions providing helpful services in the Nigerian legal industry.[119]

By integrating AI into their workflows, legal professionals can reclaim valuable time previously dedicated to exhaustive research. This shift enables them to focus more on strategic decision-making, client interactions, and other high-value tasks, thereby enhancing overall productivity and service quality. AI minimizes human error in legal research by consistently applying search criteria and identifying relevant cases, arguments, and statutes. Advanced capabilities like automated citation checking and updates on case validity further improve research accuracy.

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[115] Jeremy Webber, 'Legal Research, the Law Schools and the Profession' [2004] Sydney Law Review <https://www.austlii.edu.au/cgi-bin/viewdoc/au/journals/SydLRev/2004/27.html> accessed 11 August 2025.
[116] Notable examples are Bloomberg Law's AI-driven legal research platform , Casetext's CARA AI , and Lexis+ AI.
[117] Lars Daniel, 'Attorneys Using AI Produce Better Work in Half the Time, Landmark Study Finds' (*Forbes*) <https://www.forbes.com/sites/larsdaniel/2025/03/18/lawyers-using-ai-produce-better-work-in-half-the-time-landmark-study-finds/> accessed 11 August 2025.
[118] Lawpavilion, Legalpedia, NWLR online and others all have some helpful search engines.
[119] Itunu Kolade-Faseyi, 'Artificial Intelligence And The Nigerian Legal Profession' (2021) 1 Achievers University Law Journal, 161.

5.7 *Automating Time Tracking & Recovering Lost Billable Hours*

Traditional timekeeping often underreports actual billable work, as experience has shown that many lawyers record just 2.9 out of an average of eight working hours per day.[120] AI-powered tools[121] automatically capture tasks (emails, calls, document edits, calendar entries) in real time, significantly reducing "time leakage" and ensuring minimal billable time goes undocumented. The tools don't just record time; they interpret and classify it according to internal or external billing standards. This leads to better accuracy in entries, reduced client disputes, and improved compliance with firm or client guidelines. With automated logging and smart categorization, AI reduces cumbersome manual entries. Lawyers can focus on substantive legal work rather than timekeeping chores.[122] AI systems identify billing inconsistencies (like duplicate entries, vague descriptions, and missing narratives) before invoices go out, lowering the risk of write-offs or client pushback.

5.8 Using AI for Recording and Drafting Legal Meeting Minutes & Reports

AI-driven transcription tools[123] convert spoken content into text in real time or afterwards, dramatically reducing manual note-taking time. Some AI systems can join virtual meetings automatically and generate live transcripts, complete with summaries and actionable keywords.[124] Beyond simple transcripts, AI tools can craft structured, reader-friendly summaries. On how these models work, Thomas notes that:

"The generative AI model is trained on a large dataset of meeting transcripts and summaries. To ensure the quality of the generated summaries, the model is provided with prompts that specify the desired structure and content. These prompts include instructions for identifying the meeting agenda, key points discussed, decisions made, action items, participant information and next steps."[125] Automating transcription and summarization allows lawyers

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[120] Lynette Wieland, 'The True Cost of Billable Hours to the Profession' (*Law Gazette*) <https://www.lawgazette.co.uk/commentary-and-opinion/the-true-cost-of-billable-hours-to-the-profession-/5110469.article> accessed 11 August 2025.
[121] Clio Duo, MagicTime, SmartTime, PointOne, Billables.ai, and Laurel.
[122] EffortlessLegal-Holly Urban, '"AI-Assisted Legal Billing": Why AI Does Not Mean the End of Hourly Billing' (*Lexology*, 12 December 2024) <https://www.lexology.com/library/detail.aspx?g=9b14b0c8-2d8b-44dd-b5cd-5d1413971d6a> accessed 13 August 2025.
[123] Examples are Otter.ai, Fireflies.ai, MinutesGenerator, Jamie and Sembly AI and Notion AI.
[124] Sibin Thomas, 'Revolutionizing Meeting Analysis: An AI-Powered Approach to Automatic Transcription and Summarization' (2023) 1(4) Journal of Artificial Intelligence Machine Learning and Data Science,1545-1547}
[125] Ibid.

to redirect effort from administrative tasks to substantive legal work, aiding productivity and reducing staffing strain.

6. CYBERSECURITY ISSUES PLAGUING AI-DRIVEN LEGAL SYSTEMS

The term 'Cybersecurity' concerns the practice of safeguarding or securing digital systems, networks, devices, and (personal or no-personal) data from compromise, unauthorized access, attacks, manipulation, damage, loss or theft. Orji elaborately defines the term as: "…an information age terminology that was derived by merging the prefix – 'cyber' with the concept of 'security'…used to refer to a multi-disciplinary aspect of information communication technology that deals with the legal, regulatory, as well as technological and non-technological mechanisms put in place with the aim of protecting computers, computer systems, computer networks and digital technologies including the information stored or transmitted by them from all forms of threats."[126]

The integration of AI into justice systems heralds transformative potential in enhancing efficiency and decision-making. However, this evolution is accompanied by significant cybersecurity challenges that threaten the integrity, confidentiality, and reliability of legal processes.

6.1 Vulnerability to attacks

Incorporating AI into legal systems promises efficiency and insight, yet it also exposes the associated vulnerabilities. Cyber-attacks, cognitive manipulation, and physical tampering can compromise legal outcomes, client trust, and system integrity. For example, Fatehi notes that

[126] Uchenna Jerome Orji, *Cybersecurity Law and Regulation* (Wolf Legal Publisher, 2012).

adversarial attacks 'generate perturbations by modifying characters within a word, adding or removing words, replacing words with semantically similar and grammatically correct synonyms using a word embedding optimized for synonyms replacement, or by synonym substitution using WordNet where the replaced word has the same part of speech (POS) as the original one".[127] For legal AI, this attack occurs by subtle input manipulations, which could misguide AI-powered legal document review tools, leading to flawed interpretations or overlooked material precedents and jeopardising case strategy.

For model theft and data breaches, attackers extract sensitive legal models (e.g., contract classifiers), they could replicate proprietary systems or expose confidential legal content, undermining privacy and intellectual property protection. Physical and infrastructure attacks on AI could either be in form of hardware tampering or denial of service (DOS)[128] While physical tampering with servers or edge devices could corrupt AI models or alter data, leading to systematic misbehavior in legal AI tools, Denial of Service in the mould of targeted disruptions could disable AI availability during critical legal processes (e.g., court deadlines or emergency filings), obstructing justice delivery. Thorat, et al confirm that, "…the vulnerabilities come from various sources such as malicious insider tampering, unintentional design errors, weak testing and verification frameworks, and optimization by computer-aided design (CAD) tools that overlooked security implications"[129]

6.2 Exploitation of AI by Malicious Actors (deepfake etc)

As AI becomes deeply integrated into critical systems, its misuse by bad actors presents significant risks. Malicious exploitation includes generating deepfakes for misinformation, deploying AI-powered spear-phishing, or using AI to automate vulnerability discovery, dramatically scaling the reach and sophistication of cyber threats. Deep fakes refer to the manipulation of existing media (image, video, and/or audio) or the generation of new (synthetic) media using Deep learning-based approaches.[130]

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[127] Nina Fatehi, Qutaiba Alasad and Mohammed Alawad, 'Towards Adversarial Attacks for Clinical Document Classification' (2023) 12 Electronics 129.
[128] Rijoy Mukherjee, Sneha Swaroopa and Rajat Subhra Chakraborty, 'Security Vulnerabilities in AI Hardware: Threats and Countermeasures', *2024 IEEE 33rd Asian Test Symposium (ATS)* (2024) <https://ieeexplore.ieee.org/document/10915219> accessed 12 August 2025.
[129] Kitan Thorat, et al, 'Trojan-Guard: Hardware Trojans Detection Using GNN in RTL Designs This Work Was Supported by CHEST – NSF IUCRC Center for Hardware and Embedded Systems Security and Trust (CNS-1916756 with Project No. P19_23).' <https://arxiv.org/html/2506.17894v1> accessed 12 August 2025.
[130] Enes Altuncu, Virginia NL Franqueira and Shujun Li, 'Deepfake: Definitions, Performance Metrics and Standards, Datasets, and a Meta-Review' (2024) 7 Frontiers in Big Data 1400024.

AI may be used to manipulate, alter, generate or create evidence used in court, and this portends some danger to the administration of justice. This is particularly tricky especially as the courts may not be duty bound to 'investigate' the authenticity of evidence as noted by the Supreme Court in *Wab Ltd. v. Savannah Ventures Ltd*. as that: "Granted that, sometimes, the line between what is investigation and is evaluation of documentary evidence may be blurred and difficult to define, the distinction is that whereas, investigation leads to a discovery of fresh facts, the truth of which could have been challenged by fresh contrary evidence; evaluation of evidence leads merely to findings based on the quality of evidence already existing." [131]

Interestingly, the Court of Appeal held in *Multichoice v. M.C.S.N*. that the rationale for section 84 of the Evidence Act, 2011 is "for the satisfaction of the requirements of the sacred provision is to ensure the authenticity of the document and the integrity of the procedure used to bring it into being."[132] However in the age of deepfakes using AI to superimpose an individual's face onto another's body in images or videos and thereby enabling remarkably realistic mimicry of their appearance and expressions, such requirement of certification is merely cosmetic playing no role in confirming authenticity of documents.

Malicious exploitation of AI could also be done where attackers subtly tweak input data (often imperceptibly) to mislead AI systems into making incorrect decisions.[133] This can disrupt AI-driven defensive tools like intelligent malware detection or compromise autonomous systems. The Supreme Court decried these vulnerabilities in *Abubakar v. I.N.E.C.* where the court held that: "The use of computer and computer-generated evidence is indispensable in the current period. Documents produced by computers are common feature of all businesses and spheres of life, and more and more people are becoming familiar with

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[131] (2002) 10 NWLR (Pt. 775) 401, 926. See also Ishor vs. The State (2017)LPELR-44041(CA) and Arabambi v. Advance Beverages Industries Ltd. (2005) 19 NWLR (Pt. 959) 1, 29 thus: " A Judge takes an evidence given in Court i.e. oral and documentary et al and at the end of the day after evidence has been concluded, he retires to his chambers or even his residence, as is always the case, to consider and appraise all evidence. He cannot and is not expected to do this in open Court and in the process of hearing the case or trial." What is important is that the examination of a document by a Judge in writing his judgment should not amount to an investigation.

[132] (2020) 13 NWLR (Pt. 1742) 415. See also Dickson v. Sylva (2017) 8 NWLR (Pt. 1567) 167; Kubor v. Dickson (2014) 4 NWLR (Pt.1345) 534 ; Omisore v. Aregbesola (2015) 15 NWLR (Pt. 1482) 205; Dauda v. F.R.N. (2018) 10 NWLR (Pt. 1626) 169; Onuoha v. Ubah (2019) 15 NWLR (Pt. 1694) 1.

[133] Apostol Vassilev, 'Adversarial Machine Learning: A Taxonomy and Terminology of Attacks and Mitigations' (National Institute of Standards and Technology 2025) NIST AI 100-2e2025 <https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-2e2025.pdf> accessed 12 August 2025.

their uses and operation. For as much as it is very advantageous, it can be very disadvantageous, since garbage in, garbage out, is always the result. When falsehood is trashed into it, it gives out falsehood, and when truth is trashed into it, it gives out truth."[134]

6.3 Data Leakage

AI systems can inadvertently expose sensitive training data through output.[135] For the lawyer, client confidentiality is strict rule of professional practice as echoed by the Court of Appeal in *Ikeme v. Anakwe* that: "…a legal practitioner owes his client a duty to maintain the confidentiality of their relationship, and not to disclose any information he comes across thereby, at the time of receiving instructions from any other party or an adverse party; or use such information to his client's detriment."[136] Reliance on AI may sometimes put this duty at risk, when Law firms use generative AI for drafting, research, or correspondence.[137]

6.4 Challenges in Attribution and Accountability

The law does not operate in a vacuum, as it culminates in institutional power to fine, to jail, to sanction, to regulate and restrict, etc.[138] In the context of AI systems, attribution means identifying who is responsible for an AI system's harmful action. One of the most persistent obstacles in integrating AI into judicial systems is pinpointing responsibility when an AI-supported decision goes awry. This is often referred to as 'the problem of many hands'[139] because complex AI systems involve numerous contributors (from designers and developers to end-users), making it difficult to identify who should be held accountable for faults that occasion injury.[140] As Gabriel Lima et al. note that distributed AI systems blur the lines of responsibility, raising the practical challenge of "decision ownership," especially when AI

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[134] (2020) 12 NWLR (Pt. 1737) 37.
[135] Joel Paul, 'Privacy and Data Security Concerns in AI' <https://www.researchgate.net/publication/385781993_Privacy_and_data_security_concerns_in_AI> accessed 12 August 2025.
[136] (2003) 10 NWLR (Pt. 829) 548.
[137] Andrea Apicella, Francesco Isgrò and Roberto Prevete, 'Don't Push the Button! Exploring Data Leakage Risks in Machine Learning and Transfer Learning' (arXiv, 10 July 2025) <http://arxiv.org/abs/2401.13796> accessed 12 August 2025.
[138] Obinna Okeoma, 'Predictive Justice and Sentencing Algorithms in Nigeria: Legal Reliability, Evidentiary Weight, and Fair Trial Concerns -The Status Quo and What It Could Be' (Social Science Research Network, 30 June 2025) <https://papers.ssrn.com/abstract=5331955> accessed 12 August 2025.
[139] Donal Khosrowi, Finola Finn and Elinor Clark, 'Engaging the Many-Hands Problem of Generative-AI Outputs: A Framework for Attributing Credit' [2024] AI and Ethics <https://doi.org/10.1007/s43681-024-00440-7> accessed 12 August 2025.
[140] Miriam Buiten, Alexandre de Streel and Martin Peitz, 'The Law and Economics of AI Liability' (2023) 48 Computer Law & Security Review 105794.

operates as a decision-support tool rather than replacing human judgment.[141] AI's lack of transparency exacerbates accountability challenges. Even if the decision process needs justification, the opaque nature of many AI models hampers understanding of how decisions were made. Without explainable outputs, the legal standard of accountability cannot be fully met.[142] Ultimately, ensuring accountability in AI-augmented justice systems demands improving AI explainability and establishing clearer mechanisms for tracing responsibility across the system's lifecycle.[143]

7. OTHER ETHICAL CONCERNS AROUND AI-DRIVEN LEGAL SYSTEMS

AI's integration into the legal system has expectedly ushered in a new era of efficiency, accuracy, and innovation. Yet, as AI technologies play an appreciated role in legal research, decision-making, and case management, they also ignite critical discussions on ethics, fairness, and accountability. Undoubtedly, the increasing reliance on AI in the justice sector introduces technical advancements while raising profound questions around privacy, due process, transparency, and the risk of algorithmic bias etc, few of which are discussed hereunder:

7.1 (In)Accuracy

The accuracy of AI systems remains a foundational concern within the justice industry. Blind reliance on AI-generated authorities/court decisions have misled many lawyers into citing non-existent cases. Mid-2025, a UK High Court was invited in the case *Ayinde, R v The London Borough of Haringey* to rule on the 'actual or suspected use by lawyers of generative artificial intelligence tools to produce written legal arguments or witness statements which are not then checked, so that false information (typically a fake citation or quotation) is put before the court.'[144] In referring the erring lawyers for disciplinary actions, the court held on the lawyers' duty to ensure accuracy of resources received from AI thus:

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[141] Gabriel Lima and others, 'Collecting the Public Perception of AI and Robot Rights' (arXiv, 4 August 2020) <http://arxiv.org/abs/2008.01339> accessed 12 August 2025.
[142] Antonios Kouroutakis, 'Rule of Law in the AI Era: Addressing Accountability, and the Digital Divide' (2024) 4 Discover Artificial Intelligence 115.
[143] Nagadivya Balasubramaniam and others, 'Transparency and Explainability of AI Systems: From Ethical Guidelines to Requirements' (2023) 159 Information and Software Technology 107197.
[144] [2025] EWHC 1383.

"Placing false material before the court with the intention that the court treats it as genuine may, depending on the person's state of knowledge, amount to a contempt… As to Mr Hussain, and Primus Solicitors, there was a lamentable failure to comply with the basic requirement to check the accuracy of material that is put before the court. A lawyer is not entitled to rely on their lay client for the accuracy of citations of authority or quotations that are contained in documents put before the court by the lawyer. It is the lawyer's professional responsibility to ensure the accuracy of such material…Mr Hussain has referred himself to the Solicitors Regulation Authority. We will also make a referral."[145] Hallucinations (i.e fabricated or misleading outputs) are particularly alarming when AI tools are used in legal research, document drafting, or decision support. Misleading citations or assertions can misinform judges or lawyers, leading to miscarriages of justice, eroded trust in the judiciary, and vulnerable communities being disproportionately harmed.[146]

From a Nigerian perspective, another factor that could be responsible for inaccurate or misleading information generated by AI could be the dearth of publicly information on the Internet. In agreement, Kahuwai argues that: "Online information are dependent on available data. It is common knowledge that a lot of information on Nigeria are not available online. Another issue is that information gotten from AI, (that was trained on this insufficient data), maybe accurate, incomplete, or not be relevant to what a Nigerian lawyer may need. There is therefore the need for more reportage of our laws, courts decisions, rules of court, etc, online. This will help program developers have access to information and data on which to build their applications, tools or platforms."[147]

7.2 Bias, Discrimination, and Algorithmic Oppression

AI systems are trained on historical data, which often reflects existing societal biases. When these systems are used in legal contexts, they can perpetuate and even amplify these biases.[148] For example, during the #EndSARS demonstrations in Nigeria, the use of facial recognition to identify and track protesters, would raise deep concerns about biased policing**,** rights

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[145] Ibid.
[146] Beliña Annery Herrera-Tapias and Diego Hernández Guzmán, 'Legal Hallucinations and the Adoption of Artificial Intelligence in the Judiciary' (2025) 257 Procedia Computer Science 1184.
[147] Abigail Benjamin Kahuwai, 'Artificial Intelligence and the Legal Profession in Nigeria: Friend or Foe?' (2025) 7(1) International Journal of Law, Policy and Social Review, 28-33.
[148] Oluwatobi Balogun, 'Judicial Artificial Intelligence Bias: A Survey and Recommendations' <https://www.academia.edu/72198807/Judicial_Artificial_Intelligence_Bias_A_Survey_and_Recommendations > accessed 13 August 2025.

violations, and surveillance of vulnerable or dissenting individuals. On the other hand, discrimination arises when AI systems produce systematically prejudiced outcomes due to flawed assumptions or biases in the training data.[149] This can lead to unfair treatment of individuals based on background, ethnicity, religion, gender, socioeconomic status, or other protected characteristics. The term "algorithmic injustice"[150] describes how such biases can result in marginalized groups being disadvantaged by automated decision-making processes.

7.3 Transparency, Explainability, and Public Trust

Due to the conservative nature of the legal profession, Nigerian judges, especially, are usually wary of AI, due to its perceived vulnerabilities, opacity and complexity.[151] Transparency and explainability stand out as critical pillars that influence public trust in AI systems. Transparency, in this context, refers to the degree to which stakeholders can understand the workings of an AI system.[152] In the legal domain, this means that the processes, data sources, and algorithms underpinning AI tools should be accessible and comprehensible to users, including legal professionals and the public. Transparency also ensures that AI systems operate in a manner that is open to scrutiny, fostering accountability and mitigating the risks of hidden biases or discriminatory practices.[153]

Explainability, on the other hand, refers to a set of techniques that make AI systems' decision-making transparent and understandable. The goal is to allow humans, whether users, regulators, or developers, to comprehend how and why an AI arrived at a specific outcome. Interestingly on explainability of AI, Scott, the managing editor of technology at Axios declares that “it's common knowledge among AI developers that they can't always explain or predict their systems' behavior”[154] Various jurisdictions are beginning to mandate transparency in AI systems. For instance, the Nigeria Data Protection Act includes provisions

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[149] Lorenzo Belenguer, ‘AI Bias: Exploring Discriminatory Algorithmic Decision-Making Models and the Application of Possible Machine-Centric Solutions Adapted from the Pharmaceutical Industry’ (2022) 2 Ai and Ethics 771.
[150] Abeba Birhane, ‘Algorithmic Injustice: A Relational Ethics Approach’ (2021) 2 Patterns 100205.
[151] Okeoma (n 140).
[152] Larsson (Stefan) and Heintz (Fredrik), ‘Transparency in Artificial Intelligence’ (5 May 2020) <https://policyreview.info/concepts/transparency-artificial-intelligence> accessed 12 August 2025.
[153] Petar Radanliev, ‘AI Ethics: Integrating Transparency, Fairness, and Privacy in AI Development’ (2025) 39 Applied Artificial Intelligence 2463722.
[154] Jim VandeHei Allen Mike, ‘Scariest AI Reality: Companies Don’t Fully Understand Their Models’ (*Axios*, 9 June 2025) <https://www.axios.com/2025/06/09/ai-llm-hallucination-reason> accessed 15 August 2025.

that require organizations to restricts automated decision-making[155] processes with certain disclosure requirements, thereby enhancing transparency.[156]

7.4 Privacy, and Data Protection

The integration of AI into the justice sector offers significant advancements in efficiency and accessibility. However, it also introduces profound ethical challenges, particularly concerning privacy and data protection. These concerns are especially pertinent in jurisdictions like Nigeria, where dedicated legal frameworks have yet to evolve to address the complexities of AI technologies. Elsewhere, I argue that:

"For Nigeria, the emergence of AI presents both immense opportunities and significant regulatory challenges, especially in the context of privacy, civil liberties, and data protection. While the country does not yet have a stand-alone AI law, there are important foundational efforts and sectoral regulations that form part of Nigeria's evolving approach to AI governance. Nigeria does not currently have a comprehensive legal framework specifically dedicated to AI."[157]

AI systems in legal practice often require access to vast amounts of personal data, including sensitive information about individuals' legal histories, financial records, and personal communications. The collection, storage, and processing of such data raise critical privacy issues relating to informed consent,[158] fairness,[159] transparency,[160] data security,[161] and cross-border data flow.[162] The use of AI in surveillance within legal contexts can lead to overreach

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[155] Onyeka Christiana Aduma, et al'Appraisal of the Legal and Ethical Implications of Artificial Intelligence Adoption in Corporate Decision-Making in Nigeria' (2024) 11(4) Nnamdi Azikiwe University Journal of Commercial and Property Law, 12.
[156] Section 37, Nigeria Data Protection Act, 2023.
[157] Excerpt from the text of paper titled 'Artificial Intelligence, Predictive Privacy and Data Protection Under Nigerian Law' delivered on the 24th day of July 2025 at the Alex Ekwueme Federal University, Ndufu-Alike, Ebonyi State.

[158] Clients may not fully understand the extent to which their data is being collected and utilized, leading to potential breaches of informed consent principles.
[159] Anna Fine, Emily R Berthelot and Shawn Marsh, 'Public Perceptions of Judges' Use of AI Tools in Courtroom Decision-Making: An Examination of Legitimacy, Fairness, Trust, and Procedural Justice' (2025) 15 Behavioral Sciences 476.
[160] Rowena Rodrigues, 'Legal and Human Rights Issues of AI: Gaps, Challenges and Vulnerabilities' (2020) 4 Journal of Responsible Technology 100005.
[161] Storing large volumes of sensitive data increases the risk of cyberattacks and unauthorized access, potentially exposing individuals to identity theft or misuse of personal information.
[162] AI systems may involve data processing across multiple jurisdictions, complicating the enforcement of local data protection laws and standards.

and the erosion of civil liberties, such as predictive policing[163], facial recognition[164] and a chilling effect on fundamental rights.[165]

8. RECOMMENDATIONS

As AI becomes increasingly embedded in the Nigerian justice systems, its promise of efficiency and enhanced legal access is tempered by complex ethical, cybersecurity, and institutional risks. Addressing these risks requires a layered, rights-centred approach as well as a steadfast commitment to preserving the core values of the rule of law, human dignity, and public trust.

8.1 Judicial Policy Guidance for the Safe and Effective Use of AI in Legal Practice

The integration of AI into the legal sector offers significant potential to enhance efficiency and accessibility. However, to ensure its responsible and effective use, it is imperative that the Nigerian judiciary and legal profession establish comprehensive policy guidance for the judges and lawyers on the use of AI as done in other jurisdictions like the US,[166] UK,[167] Kenya[168] and Rwanda.[169] The policies or guidelines should disseminate clear ethical guidelines that address the responsible use of AI in legal practice. These standards should encompass competence requirements,[170] transparency and disclosure[171] and accountability measures.[172]

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[163] AI algorithms used to predict criminal activity can disproportionately target certain communities, leading to over-policing and potential violations of individuals' rights.
[164] The deployment of facial recognition technologies in public spaces or courtrooms can infringe on individuals' right to anonymity and freedom from unwarranted surveillance.
[165] Awareness of being monitored can deter individuals from exercising their legal rights, such as seeking legal counsel or participating in public demonstrations.

[166] Mandi Chang, 'Ethical Lawyering in the Age of Generative AI' (2025) 15(2)Seattle Journal of Technology, Environmental, & Innovation Law.
[167] Bar Council, 'Considerations When Using ChatGPT and Generative AI Software Based on Large Language Models' (*Bar Council - Practice & Ethics*) <https://www.barcouncilethics.co.uk/documents/considerations-when-using-chatgpt-and-generative-ai-software-based-on-large-language-models/> accessed 12 August 2025.
[168] The Judiciary of Kenya is developing an Artificial Intelligence Adoption Policy Framework to guide the ethical, safe, and purposeful adoption of AI in the judicial system. This framework aims to ensure that AI is used responsibly and in a manner that upholds justice and human rights. See Headlines – Judiciary to leverage AI to enhance justice <https://judiciary.go.ke/category/front-page-news/> accessed 12 August 2025
[169] 'Shaping the Future of Justice in Rwanda: Training of Judiciary on AI' (7 March 2025) <https://www.unesco.org/en/articles/shaping-future-justice-rwanda-training-judiciary-ai-data-protection-and-rule-law> accessed 12 August 2025.
[170] Mandating that legal professionals possess a foundational understanding of AI technologies, including their capabilities and limitations, to ensure informed decision-making.

8.2 Implement Training and Education Programs

To equip legal professionals and judges with the necessary skills and knowledge, the judiciary should develop training modules covering the ethical implications, practical applications, and limitations of AI in legal contexts. As a matter of policy and practice, the judiciary and the Bar Association must promote and observe continuous education to keep their members and staff abreast of advancements in AI technology and its evolving role in the legal field. In a recommendation that resonates with the NBA mandatory ICLE trainings, Eleweke and Oseni suggest that "the Nigerian Bar Association (NBA) ought to ensure that lawyers take part in seminars that educate them on the importance and use of technology in legal practice yearly. They could also consider making it a criterion for renewing practice permits by lawyers. Educating lawyers would help improve their proficiency and encourage them to use technological tools that would enhance their productivity. Making these trainings mandatory on the other hand, would ensure that lawyers are up to date with technological trends and can collaborate among themselves."[173]

8.3 Ensure Data Privacy and Security

Given the sensitive nature of legal data exposed in court as part of court proceedings or otherwise, the legal profession must, set privacy data protection standards and measures to safeguard client confidentiality and prevent unauthorized access to legal information.[174] The judiciary must also ensure that periodic audits are conducted on AI and other digital systems used in the administration to ensure safety and compliance with relevant privacy and data protection regulations while identifying potential vulnerabilities.[175]

8.4 Cybersecurity Resilience

The adoption of AI in judicial operations offers remarkable efficiency gains, but it also exposes sensitive legal processes to heightened cyber threats. The CJN has cautioned that as the judiciary embraces digital tools, it becomes a prime target for cyberattacks, especially

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[171] Requiring the disclosure of AI-generated content in legal documents to maintain transparency and uphold the integrity of legal proceedings.
[172] Defining the responsibilities of legal professionals when utilizing AI tools, ensuring accountability for decisions influenced or assisted by AI.

[173] Chinonyerem Eleweke and Kazeem O. Oseni, 'Applying Software Engineering Solutions to Law Firm Management, Nigeria as a Case Study' (2025) 15(2) International Journal of Computer Science, Engineering and Applications (IJCSEA) 1.
[174] Section 39, Nigeria Data Protection Act, 2023.
[175] Article 10, NDPA General Application and Implementation Directive 2025 (GAID).

given the sensitive nature of judicial data and public trust involved.[176] To safeguard the integrity and confidentiality of court systems while harnessing AI's benefits, the judiciary must prioritize and invest in building robust cybersecurity resilience, a strategic posture that combines prevention, response, and recovery to withstand and quickly rebound from cyber incidents.

8.5 Public Trust & Rights Protection

AI-powered tools offer powerful opportunities to enhance the efficiency of justice systems, but these gains must not come at the expense of public confidence or fundamental rights. For AI adoption to be truly beneficial, the judiciary must integrate AI guided by transparency, accountability, and respect for individual liberties. The courts should prioritize transparency, continuous monitoring, and inclusive stakeholder engagement to maintain public trust. AI systems must be communicated clearly, with communities fully informed about how these tools affect judicial processes.

8.6 Fully automated e-filing

To enhance judicial efficiency and streamline administrative workflows, we advocate for a complete optimization of high court e-filing systems. This reform should minimize human intervention, reduce delays, and empower judicial staff to focus on core legal decision-making.

[176] Akinbayo Wahab, 'Why Judiciary Is Prime Target for Cyberattacks - CJN' (*Vanguard News*, 7 April 2025) <https://www.vanguardngr.com/2025/04/why-judiciary-is-prime-target-for-cyberattacks-cjn/> accessed 13 August 2025.