# The Incorporation of Artificial Intelligence in Legal Practice in Uganda: Prospects and Socio-Economic Issues

**Olawunmi Opeyemi Obisesan   Ph.D.  \***

**Kareyo Margaret Ph.D. \*\***

**Nuwagaba Sheya \*\*\***

**Binomugisha Alexanda \*\*\*\***

**Amina Wahab \*\*\*\*\***

**ABSTRACT**

The integration of Artificial Intelligence (AI) into legal practice is transforming the global legal landscape, and Uganda is no exception. This article examines the prospects and socio-economic implications of AI adoption in Uganda's legal sector. It explores the potential of AI to enhance legal research, streamline case management, and improve access to justice through automated legal services. However, the incorporation of AI also raises critical socio-economic issues, including job displacement, the digital divide, and regulatory challenges. The article analyzes the readiness of Uganda's legal infrastructure for AI, the ethical considerations, and the potential impact on legal professionals and clients. By assessing both opportunities and challenges, this study offers insights into how Uganda can navigate the evolving intersection of law and technology, ensuring equitable benefits from AI in the legal domain.

**Keywords:** Artificial Intelligence, Clients, Legal Practice. Legal professionals, Regulatory challenges.

## 1. Introduction

This essay explores the prospects of the incorporation of artificial intelligence (AI) in legal practice in Uganda. It also highlights associated socio-economic issues and explores challenges which may come in the process of incorporation of AI into legal practice in the Ugandan economy. The 21st century has since witnessed phenomenal technological innovation, including novel ways of doing business. Such innovations are driven by digital

transformation, artificial intelligence, big data, blockchain amongst other technologies[12] The use of AI technology has become more embedded in societies and because Uganda is not insulated from technological change, it is predicted that AI will significantly contribute to the growth of Uganda's economy.[34] During this time of rapid growth in the use of artificial intelligence-based systems for making decisions, it is necessary to shed light on the legal perspective of accepting AI technology as part of the legal practice in Uganda.[5]

This research essay is motivated by the fact that the issue of AI in the legal industry is only in its early stages of discussion in Uganda where there is no data on such advocacy.[6] To gain an understanding of the broad implications of AI on the legal system, this essay discusses the uses and applications of AI in legal services and the prospects of AI incorporation in Ugandan legal practice. Furthermore, it investigates the effects and broader socio-economic implications of such AI incorporation. Moreover, the essay identifies the legal, ethical, and social challenges that may be likely to arise from the process of AI incorporation in the legal industry. In light of the research carried out, the essay outlines the research objectives and the scope of the study.

## 1.1. Background and Rationale

The incorporation of artificial intelligence in legal practice in Uganda is justified essentially from the examination of the global and national (i.e., African, and regional)

\* School of Law, Kampala International University, Kampala Uganda, olawunmi.obisesan@kiu.ac.ug
\*\* School of Mathematics and Computing, Kampala International University, Kampala Uganda
\*\*\* School of Law, Kampala International University, Kampala Uganda
\*\*\*\* School of Law, Kampala International University, Kampala Uganda
\*\*\*\*\* School of Law, Kampala International University, Kampala Uganda

1 Satish Kumar and others, 'Artificial Intelligence and Blockchain Integration in Business: Trends from a Bibliometric-Content Analysis' (2023) 25 Information Systems Frontiers 871.
2 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.
3 Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.
4
5 OECD, 'AI Strategies and Policies in Uganda' (OECD, 2024) https://oecd.ai/en/dashboards/countries/Uganda accessed 17 September 2024.
6 Chinasa T Okolo, Kehinde Aruleba and George Obaido, 'Responsible AI in Africa—Challenges and Opportunities' (2023) <https://link.springer.com/chapter/10.1007/978-3-031-08215-3_3> accessed 17 September 2024.

context.[7]On the global front, the commercial, social, and technological environment in which legal services are requested and delivered have been experiencing a dramatic change from at least the year 2000, characterized by increasing use of the internet and electronic delivery mechanisms, modern and older forms of technology, the sophistication and extent by which these new technologies are used, such as the purchase of goods and services including legal services.[8]  In addition, developing regulatory requirements for electronic transactions have introduced new paradigms that keep shifting from the old ages with the proliferation of 'big data' through cloud computing, hosted and extranet services, and smart surrogates, and expectantly, and very soon, the full swing in the era of 'blockchain' technologies. Henceforth, the principal drivers regarding the use of AI in the legal service context include a combination of cost, efficiency, and innovation.[9]

The proliferation of e-commerce services as an angle in trade and commerce, and the outmoded legal service delivery mechanism across Africa would force the inescapable conclusion that artificial intelligence and advanced technology are more urgently needed in comparison to some already technologically and AI-sophisticated jurisdictions.[10] Furthermore, in Africa, in view of social, technological, economic, and political development (STP) appraisal, the exclusivity of a 'posh or high-end artificial intelligence technology' – which includes machine learning applications in the legal service context – would not at the moment come at a cap price. Simply put, this technology is capable of becoming a complementary resource as well as a substitute for lawyers, legal practitioners, paralegals, and their support staff.[11] In addition, similar to all other businesses, practice-delivering legal services organizations deliver legal services in 'main stem legal services; (key legal inquiry output generally referred to as 'advice' is further divisible comprising) in

---

[7] Anton Korinek, Martin Schindler and Joseph Stiglitz, 'Technological Progress, Artificial Intelligence, and Inclusive Growth' <https://www.elibrary.imf.org/view/journals/001/2021/166/article-A001-en.xml> accessed 17 September 2024.

[8] Willem Hendrik Gravett, 'Is the Dawn of the Robot Lawyer upon Us? The Fourth Industrial Revolution and the Future of Lawyers' (2020) 23 Potchefstroom Electronic Law Journal 1.

[9] Evgenia E Frolova and Elena P Ermakova, 'Utilizing Artificial Intelligence in Legal Practice' (2021) <https://link.springer.com/chapter/10.1007/978-981-16-4621-8_2> accessed 23 September 2024.

[10] 'Economic Amphitheater Magazine' <https://www.amfiteatrueconomic.ro/Home_Ro.aspx> accessed 23 September 2024.

[11] Robert M Feinberg, 'Paralegals and Associate Lawyers: Substitutability Within the Law Firm, 1977-87' (1994) 76 The Review of Economics and Statistics 367.

specific and more sector emphasis; legal information, 'legal drafting,' and 'legal representation and litigation.' Because the role of 'cognition' in legal service effects can be observed across these copyrightable items of 'output' by lawyers, the application of this technology in delivering legal services can utilize the **IoT**(internet of things i.e devices with sensors, processing ability, software and other technologies that connect and exchange data with other devices). Hence, historical analysis suggests two convergences in this industry that would warrant the deployment of artificial intelligence in the context of this analysis.

## 1.2. Research Objectives

The research will seek to address the role of artificial intelligence in the legal profession in Uganda. To guide this study, the following will be the objectives of the study: to explore the possibilities of incorporating artificial intelligence in the legal profession in Uganda, and to illuminate the possible socio-economic aspects of incorporating artificial intelligence in the legal profession in Uganda.

This research is intended to provide a broad outlook on the integration of artificial intelligence (AI) in the practice of law using Uganda as a test case. The relevance of this research is underpinned by changes in software offerings and technological advances that allow AI to make significant contributions to various sectors of the economy. The limitations of law are mostly bent on using selective reasoning and developing soft skills that are hard to automate. This and other limitations will be discussed in this guidance. Considering the developing nature and small sizes of many law firms in developing worlds, the broader diffusion of AI technologies in the legal industry may lead to the general sidelining of legal practitioners. This does not mean, however, that there is no role that practitioners have in the age of AI. There are certain tasks within the practice of law that AI and technology in general may not perform as a lack of the human touch would.

The possibilities and socio-economic implications of the incorporation of AI in the practice of law within the specific Ugandan context are significant and need clear exploration in lifelong learning. There are scholars who have questioned the role of AI in law and

emphasized its dehumanizing effects on practice. There is no such study for the context of Uganda.

## 1.3. Scope and Delimitations

This paper, in general, looks at the concepts of artificial intelligence and legal practice within the context of Uganda. Specifically, it looks at the incorporation of artificial intelligence in the practice of law, the prospects it creates, the socio-economic issues, and anticipated resistance from advocates. While feminists and philosophers have categorized law as open texture, the main discourse of artificial intelligence and legal practice comes from the background of law and economics, and not from the traditional jurisprudential perspective.[12] The paper, however, does not declare artificial intelligence as entirely antagonistic, especially when it is incorporated to address public interest issues within the administration of justice. But then, at the same time, the paper does not declare all machine-made judicial decisions as such. The paper does not also undertake a medical analysis of what artificial intelligence is, as it generally looks against automation. It believes that for as long as the advocate's craft includes doubt, ethics, and appearance, artificial intelligence can be dangerous to the sustenance of the most important officers of the court, the advocates. This is because the application of artificial intelligence will make lawyers increase faster, rendering them redundant and affecting the speed of their transactions. This might look paradoxical for Uganda, where lawyers go to court to apply for adjournment in an era of quick justice. The extent to which these socio-economic issues may affect the practice of law in Uganda when artificial intelligence is incorporated in practice will not be dealt with entirely in this paper.

Artificial intelligence involves the creation and incorporation of machines (computers) whose processes serve to perform tasks that help human agencies make decisions or use judgment based on those outputs or modify them, in addition to carrying out administrative or clinical tasks with little or no supervision.[13] This can involve, among other transactions, making corrections from a file and fixing mistakes, addressing issues in operations that

---

[12] ibid.

[13] 'Overview of Artificial Intelligence in Health Care System – IJSREM'
<https://ijsrem.com/download/overview-of-artificial-intelligence-in-health-care-system/> accessed 23 September 2024.

cannot be performed by humans.[14] However, it has an aspect of mining scientific data for the societal good. This means that once data has been compiled in a way the system can understand, the machine can spot trends in an area that is not necessarily known to human science.[15] This section looked at the discourse broadly.

## 2. AI Technologies in Legal Practice

In the practice of law, artificial intelligence (AI) technologies are used to imitate human cognitive functions.[16] The application of AI in legal services is therefore a subset of AI applications with unique traits that have attracted interest and criticism. Technical developments in digital technologies supposedly represent a fourth industrial revolution, often referred to as Industry 4.0 or the second machine age. The impact of AI technologies on the practice of law is not yet fully appreciated, but at least some observers believe that the changes will be disruptive.[17] This is due to the relatively high level of tasks in legal services that are amenable to alternative ways of getting them done.

AI technologies in the context of legal practice broadly fall into one of two types: expert systems and machine learning.[18] Essentially, expert systems require human intervention to define rules or standardize current expertise in order to make them, in part or in whole, executable in a programmable way.[19] In the provision of legal services, expert systems assess and apply available legal knowledge and procedures to give advice, draft legal documents, or automate transactions. At this point, the input regards the specifics of a client's problems or needs and outputs are standardized. Machine learning is an approach to garnered knowledge, and it learns from voluminous and varied datasets consisting of

---

[14] ibid.

[15] Nahida Akhter Shemu and others, 'A Machine Learning View for Health Data Mining Emphasizes on the Decision Trees', *2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM)* (2020) <https://ieeexplore.ieee.org/document/9051467> accessed 23 September 2024.

[16] 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.

[17] Willem Hendrik Gravett, 'Is the Dawn of the Robot Lawyer upon Us? The Fourth Industrial Revolution and the Future of Lawyers' (2020) 23 Potchefstroom Electronic Law Journal 1.

[18] Harry Surden, 'Chapter 8 Machine Learning and Law: An Overview' (2021) <https://china.elgaronline.com/edcollchap/edcoll/9781788972819/9781788972819.00014.xml> accessed 23 September 2024.

[19] ibid.

real-world examples.[20] Unlike expert systems, learning algorithms ingest data training sets to learn from. In the provision of legal services, machine learning provides predictive analysis, e-discovery, or document or contract review. In addition, it can develop and contribute to the operation of expert systems.

## 2.1. Overview of AI in Legal Services

The use of artificial intelligence in legal services has been quite topical since 2010.[21] However, artificial intelligence was first used in 1956,[22] but it further developed in 2009 when a robot, Hal 9000, defeated two human Jeopardy champions. A first step in incorporating artificial intelligence in legal services was in 2010 with the introduction of Practical Law Company (PLC) and RD Intelligent by Riverview Law and Norton Rose.[23] Artificial intelligence started to be widely adopted in 2011 with launches of ROSS, Judicata, KIRA Systems, IBM's Watson, and Lex Machina, followed in 2012 by LegalZoom and Epoq.[24] In less than 5 years, artificial intelligence software has become a part of the library and toolkits of many lawyers and is accessed online by subscribers to other libraries such as  Data Room Direct, which offers virtual data rooms, including templates, tutorials, and precedents in media and entertainment, immigration, personal injury, and family law.[25]

Artificial intelligence is expected to have profound implications for law and legal practice. Practitioners will have all the tools of artificial intelligence with its numerous applications in legal services, such as automated drafting, template-based document assembly, data rooms for mergers and acquisition transactions, the extraction of key information from large legal documents ("due diligence analysis"), legal directories, two-sided marketplaces,

---

[20] ibid.

[21] OV Bessonov, 'The Evolution of Artificial Intelligence In The Field Of Law' [2023] Law and Society 101.

[22] ibid.

[23] ov Bessonov, 'The Evolution Of Artificial Intelligence In The Field Of Law' [2023] Law and Society 101.

[24] ibid.

[25] Herrick K Lidstone, 'Ethical Pitfalls When Lawyers Are Using Artificial Intelligence' [2023] SSRN Electronic Journal <https://www.ssrn.com/abstract=4457790> accessed 23 September 2024.

judicial prediction systems, for helping to avoid and resolve disputes.[26][27] The section has provided for the prospects of artificial intelligence for Uganda and warns of the implications for employment and access to justice in poor countries everywhere.[28][29] Furthermore, the prospects of a future without human lawyers have been drawn into question. However, a counterargument is presented explaining how the introduction of artificial intelligence would reduce costs, let lawyers focus on the provision of legal reasoning, and also attract more professionals to the profession, ensuring that law remains an attractive profession. Below are the applications of artificial intelligence in legal practice in a developing country such as Uganda.

## 2.2. Types of AI Technologies in Legal Practice

In this section, we identify different types of AI technologies used or capable of being used in legal practice.

2.2. Types of AI Technologies in Legal Practice In order to conceptualize which AI technologies are being incorporated into or can be used for legal practice, it is pertinent to highlight that there are different AI applications in law. There are several levels of AI applications available in the legal domain: digital lawyers, document quality and accuracy checkers, scientific judicial decision prediction AIs, legal advice platforms, intelligent legal information retrieval systems, legal analytics provision, and social index provision.[30] There are three main 'interventions' where "AI meets law", namely, expert systems, machine learning, and interface applications.[31][32] At the same time, an AI application can

[26] Evgenia E Frolova and Elena P Ermakova, 'Utilizing Artificial Intelligence in Legal Practice' (2022) 254 17.

[27] Benjamin Alarie, Anthony Niblett and Albert Yoon, 'How Artificial Intelligence Will Affect the Practice of Law' [2017] SSRN Electronic Journal <https://www.ssrn.com/abstract=3066816> accessed 23 September 2024.

[28] Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.

[29] Layet Monica Agech and Onyango Laban Oliver Owin, 'Impact of Artificial Intelligence in Business: What Uganda Needs to Do to Survive the Artificial Intelligence Revolution' [2024] International Journal of Research Publication and Reviews 4503.

[30] Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.

[31] Richard Susskind, 'Artificial Intelligence, Expert Systems and Law' (2012) 5 The Denning Law Journal 105.

[32] Serena Villata and others, 'Thirty Years of Artificial Intelligence and Law: The Third Decade' (2022) 30 Artificial Intelligence and Law 561.

follow one or more AI technologies such as 'Expert systems', 'Fuzzy logic', 'case-based reason', 'rule-based systems', and 'neural networks'.[33]

The AI scene is rife with different technologies. The capacity for characterizing these technologies with respect to the functions they deliver is beyond the scope of this paper. Importantly, any reference to any given legal AI technology in the subsequent discussions represents more of a descriptive understanding of the technology than what it can accomplish. However, from the two perspectives offered above, AI applications for legal practice that deliver the relevant functions to their intended audiences, typically lawyers, paralegals, and/or the general public, can be categorized into three main streams: AI technologies for procedural decisions, AI technologies for decision support, and AI technologies for consumer engagement.

## 2.3. Benefits and Challenges of AI in Legal Practice

While AI is expected to change the legal profession to a notable extent, especially in the delivery of legal services, a substantive body of literature anticipates societal benefits to a greater extent. Significant efficiencies in the conduct of law and legal outcomes are part of the general belief that AI will support lawyers to perform more effectively.[34] However, apart from a range of potential difficulties and threats, there are numerous dissimilarities as to how AI increases the areas of activity in law and job prospects.[35] When it comes to the introduction of AI in legal practice, this includes some of the prospects and difficulties that are particularly linked to the Uganda situation.

The use of AI in legal practice: Prospects of AI in legal practice Given the positive prospects of AI use in the provision of legal services, in general perspective, it can be said that the introduction of AI in Ugandan legal practice will lead to a significant number of benefits. Social benefits. A lot of time will be saved when delivering legal services. People can get legal advice any time because chatbots will be there to help people with legal

[33] Bimal K Bose, 'ARTIFICIAL INTELLIGENCE APPLICATIONS IN RENEWABLE ENERGY SYSTEMS AND SMART GRID – SOME NOVEL APPLICATIONS' 625.

[34] Michael D Murray, 'Artificial Intelligence and the Practice of Law Part 1: Lawyers Must Be Professional and Responsible Supervisors of AI' [2023] SSRN Electronic Journal <https://www.ssrn.com/abstract=4478588> accessed 23 September 2024.

[35] J Srivastava, A Dixit and J Narayan, 'Artificial Intelligence and the Legal Profession' [2023] International Conference on Green Energy, Computing and Intelligent Technology (GEn-CITy 2023) 366.

problems. With face-to-face consultations being limited, especially in times of Covid-19, commercial entities can offer their legal services online. Since chatbots in the field of legal research use machine learning, Ugandans and the Uganda Revenue Authority can enjoy useful research finding reports without the requirement for intensively studying well-laden materials.

## 3. Legal Framework for AI in Uganda

In Uganda, the Data Protection and Privacy legislation was enacted in 2019, which generally envisages the protection of an individual's personal data.[36] The Data Protection and Privacy Act, 2019 minimally regulates AI.[37] The Personal Data Protection Bill, 2021, upon enactment, will enhance the protection of personal data and entail more controls to protect the privacy and fundamental rights of individuals. The Data Protection and Privacy Act, 2019 gives an individual the right to object to the processing of one's data based on the requirement for the performance of a public interest task or the exercise of an official authority vested in the data controller, including profiling.[38] Yet, this right is subsumed under the right to object to processing, which is a limitation thereto.

While there are no standard requirements for AI and robotics, specifically, the laboratory certification guidelines guide the installation, certification, and periodic mandatory certification of electrical installations that have low, medium, and high voltage for the safe use of electricity to the public.[39]  The use of AI is an evolving trend in Uganda and globally. Pragmatically, there is no regulation that is purely AI-based. However, the current Ugandan landscape has the Uganda Data Protection and Privacy Regulations, 2019, which generally ensures the protection and confidentiality of private correspondences. Additionally, the Data Protection and Privacy Act, 2019 provides for restrictions and obligations. The guidelines that may address issues of standard or quality of the AI are mainly the laboratory certification guidelines developed by the Uganda National Bureau of Standards under the

---

[36] Kenneth Muhangi, 'Overview of the Data Protection Regime in Uganda' (2019) 3 Journal of Data Protection & Privacy 82.

[37] ibid.

[38] Kenneth Muhangi, 'Overview of the Data Protection Regime in Uganda' (2019) 3 Journal of Data Protection & Privacy 82.

[39] Olufemi Olayiwola, Miles Elsden and Mahmoud Dhimish, 'Robotics, Artificial Intelligence, and Drones in Solar Photovoltaic Energy Applications—Safe Autonomy Perspective' (2024) 10 Safety 32.

Uganda National Bureau of Standards Act, 1983, as the Uganda National Bureau of Standards Act, 2018 is not yet in force. Section 3(1)(e) of the Bill is to ensure the protection of individuals in relation to the processing of personal data and to provide for the rights of data subjects and obligations of data controllers and processors in respect to their personal data.

### 3.1. Current Legal Landscape

The process of incorporating artificial intelligence in the daily practice of law is heavily guided and constrained by laws and regulations concerned with data and privacy. However, although there are a number of laws that deal with aspects of data, they have different scopes and mandates and operate in piecemeal to regulate the various aspects of data. Since there is no single law or regulatory authority that broadly governs the use and management of data per se, the development and use of artificial intelligence in legal practice in Uganda are largely guided by these patch-quilt laws, plus decisions of the judiciary that have, in part, interpreted these laws.

The Constitution of Uganda, 1995, is the supreme law of the land, and it underpins the governance of Uganda's laws and policies. Article 27 of the Constitution is dedicated to the protection of privacy of persons, home, and other property, and enjoins Parliament to legislate laws to protect persons in these circumstances. The Data Protection and Privacy Act, 2019, was enacted by Parliament to operationalize Article 27 of the Constitution. The other law that deals with aspects of data is the Electronic Transactions Act 2011, as amended in 2017, dealing specifically with electronic documents, signatures, messages and storage. The redoubtable Computer Misuse Act of 2011 criminalizes unauthorized access to computer systems, while the Anti-Terrorism Act, 2002, and the Anti-Money Laundering Act, 2013, combat terror financing and money laundering. The National Information Technology Authority Act of 2008, as amended in 2010, mandates the National Information Technology Authority (NITA), a statutory body, to regulate and promote the development of information technology in Uganda. Coronally, the Uganda Human Rights Commission, established under the Constitution, is mandated to perform a number of duties that touch on the question of data, including sensitization of the public about human rights, and receipt and processing of complaints and investigations. Therefore, as the laws that

guide the use and management of data, albeit parochially, the protection of data in Uganda is largely the sum of these jurisprudential developers and wholly dependent on the interpretation and application thereof. Consequently, these parameters that shape the development, incorporation, and consideration of AI technologies in Uganda form this section of our analysis.

### 3.2. Regulatory Challenges and Gaps

A critical analysis of the current Ugandan regulatory framework would reveal a number of regulatory challenges and gaps that may be an obstacle towards a smooth incorporation of AI in legal practice.[40] Firstly, the extant laws are silent about AI, either as an independent entity or how AI should relate to human beings. In the event of AI malpractice,[41] it is not clear which entities should be liable especially given that the law perceives AI to have no legal personality. They also lack legal provisions on the requirements for AI regulation or on which bodies should carry out the regulation. Finally, the laws do not provide for the specific legal duties of AI developers and users. It is critical for the laws to provide the penalties for AI users/developers who misuse AI. Without these laws, a sound AI regulatory framework is hard to achieve.

The AI regulation can be pursued either through a sector-specific approach or as a stand-alone law.[42] For every approach, there are some regulatory limits. The sector-specific laws can only cover the AI acts in their relevant fields whilst a stand-alone law may seem burdensome and may create what has been described as a 'white elephant' law.[43] Currently, there is no clear policy or regulatory approach to the incorporation of AI. There are also no clear policies concerning AI education and training for the current or future practitioners.

---

[40] 'Exploring the Role of AI in Modern Legal Practice: Opportunities, Challenges, and Ethical Implications | Journal of Electrical Systems' <https://journal.esrgroups.org/jes/article/view/3320> accessed 20 September 2024.
[41] ibid.
[42] Michel Cannarsa, 'Ethics Guidelines for Trustworthy AI' in André Janssen and others (eds), *The Cambridge Handbook of Lawyering in the Digital Age* (Cambridge University Press 2021) <https://www.cambridge.org/core/books/cambridge-handbook-of-lawyering-in-the-digital-age/ethics-guidelines-for-trustworthy-ai/E9C6E735730B68941E61D6D7DE549894> accessed 20 September 2024.
[43] Michel Cannarsa, 'Ethics Guidelines for Trustworthy AI' in André Janssen and others (eds), *The Cambridge Handbook of Lawyering in the Digital Age* (Cambridge University Press 2021) <https://www.cambridge.org/core/books/cambridge-handbook-of-lawyering-in-the-digital-age/ethics-guidelines-for-trustworthy-ai/E9C6E735730B68941E61D6D7DE549894> accessed 20 September 2024.

What is currently happening is that both formal and non-formal education developers and trainers do not have clear syllabus that focuses on AI studies. Notwithstanding the fact that Uganda has investment laws and policies that aim at attracting investments in AI enterprises, there is no specific policy regarding the status of foreign AI enterprises. Such policies may aim at addressing AI employment criteria, AI operation standards, AI ownership percentages, and AI profits repatriation criteria, among others.

## 4. Socio-Economic Impact of AI in Legal Practice

Involving AI in the legal domain shall have numerous socio-economic implications.[44] The incorporation of AI shall, on one hand, increase the access to justice since lawyers can offer their services to clients – which, by traditional means, would not have happened.[45] Furthermore, the legal system is perceived as too expensive to the common man and the adoption of AI shall lower the legal costs; hence, most of the citizenry that did not have the capacity to afford a lawyer can easily access them.[46] However, on the other hand, AI integrations will affect some aspects of legal practice since it will displace the jobs of paralegals due to the fact that almost all their roles can be done by AI.[47] This raises a burning question of whether the new system shall create jobs; it will, for instance, still require someone to design the system; run updates; or even work with the community or individual affected by the use of AI.

Lastly, there are also ethical concerns with AI, especially in the legal system. For instance, the creation of AI has puzzled many experts within and outside the legal profession since they are generating results that they cannot explain. The legal system is guided by law and precedent, and judges' decisions are based on the reasoning ability and the rule-based approach. If the results of AI cannot be explained, legal practitioners shall not trust the

---

[44] 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.
[45] ibid.
[46] Dr Sarita Sunil Mahadik, 'A Study on Perception of Lawyers about the Impact of Artificial Intelligence on the Legal Profession' 6 IJFMR <https://www.ijfmr.com/research-paper.php?id=18051> accessed 20 September 2024.
[47] 'Artificial Intelligence and the Legal Profession' <http://www.bloomsburycollections.com/collections/monograph> accessed 20 September 2024.

decisions generated and hence raise a question of violation of professional ethics.[48] The aforementioned matters are further amplified by privacy concerns. For instance, in Uganda, privacy in the Constitution is a fundamental right enshrined under Article 27 and stipulates that the "respect and uphold the right to privacy of all persons". In addition, the data protection laws within the country adopt a principle-based approach. A recent study further put that the majority of Ugandans want their privacy to be protected, and many reported that they or someone close to them had experienced data fraud. The adoption of AI in the legal system shall raise a question of privacy since it will collect data to make the right, timely, and the most appropriate decision.[49] However, the rights of those persons whose data is being used have to be protected.

### 4.1. Access to Justice

The concept of access to justice is as wide as the legal framework itself. Whereas one school of thought looks at the issue from a purely substantive perspective, which includes the satisfaction of people with the legal techniques, the enforcement and promotion of human rights, and also the consciousness which has to be an important factor in promoting access to justice,[50] some scholars argue that the scope of access to justice is also purely econometric and empirical. An increase in litigation costs can lead to a situation where only a certain segment of society is able to litigate and access the justice that the judicial system can offer.[51]

These segments of the litigants are the rich in any nation, so long as there is no or limited public interest litigation. In developing countries like Uganda, it is the middle and low-income earners in society that go to courts, and yet it has been found that such a segment of society drawn from different activities like agriculture and labor cannot easily afford the costs associated with litigation in the formal justice institutions.[52] The question thus is, can AI reduce the costs of legal machinery and therefore improve access to justice? From an

---

[48] Ammar Zafar, 'Balancing the Scale: Navigating Ethical and Practical Challenges of Artificial Intelligence (AI) Integration in Legal Practices' (2024) 4 Discover Artificial Intelligence 1.

[49] 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.

[50] Olawunmi Obisesan, 'Mental Health Challenges and Access to Justice in Nigeria' (2024).

[51] Olawunmi Obisesan, 'Covid-19 and the Challenges of Access to Justice in Nigeria' 2020.

[52] '| International Academic Association Journal' <https://www.iaajournals.org/enhancing-public-interest-litigation-for-human-and-social-rights-justice-in-uganda/> accessed 20 September 2024.

econometric and empirical perspective, AI may or might not improve access to justice. In economic terms, the increase in the supply of legal services will reduce the costs of legal services. This will automatically increase the responsiveness of judicial mechanisms. But it is equally possible that the increase in accessibility to AI will increase the demand for legal services. This increase will necessitate an increased supply in order to maintain the equilibrium. The utilization of AI in legal practice becomes an important ingredient in relation to access.[53]

## 4.2. Job Displacement and Creation

Current technological advancements that are increasingly making it feasible for the legal practice to integrate AI in the delivery of their services have the potential of displacing existing job opportunities and generating others.[54] A blend of both, moreover, is also plausible as workers are shifted and distanced from the immediate performance of legal duties.[55] Jobs in automation, AI, and blockchain-based legal enterprises, as well as other jobs in those enterprises excluding legal practitioner positions, shall result. The labor market is free to workers who become displaced from legal practice and affected by AI systems. AI service providers will necessitate occupations in the spheres of computer science, technology, information technology study, AI science, providers of computer and data science services, AI and blockchain-focused consultancy, etc.

Informants also applied the human-in-the-loop approach to enable legal practitioners to work in new legal technologies set up, or to enable legal tech businesses using AI technologies to be set up and staffed by human labor. The jobs that become available will need a wide range of diversified services. The displacement dynamics have potential societal effects. In sub-Saharan Africa, employment markets are informally held together. Should job displacement occur, the result may simply be that those who are displaced take up other forms of livelihood. Informants in the Ugandan legal practice confirmed the

---

[53] Olawunmi Obisesan, 'Covid-19 and the Challenges of Access to Justice in Nigeria' 2020.
[54] J Srivastava, A Dixit and J Narayan, 'Artificial Intelligence and the Legal Profession' <https://digital-library.theiet.org/content/conferences/10.1049/icp.2023.1806> accessed 21 September 2024.
[55] ibid.

available opportunities to labor beyond the legal practice although barriers to alternate forms of employment may exist.[56]

## 4.3. Ethical and Privacy Concerns

Incorporating AI in the legal profession has ethical implications for which the profession will have a hard time adjusting.[57] AI in the legal domain could raise ethical concerns, notably in terms of privacy breaches, legal harassment, or other legal or socio-economic issues affecting individuals and society.[58] The control of public and private information will be a significant matter of concern on account of the altered articulation between AI and other systems such as data management systems or software mainly; passive, connected objects.[59] AI could give rise to certain contributions for ethics and privacy protection. Regulation, for instance, could remove the possibility of any access supplied according to the principle of real-time risk assessment.[60] This seems to head along with the direction that the EU has paved the way for. Instead of adopting tight regulations, it would encourage multiple measures to be put in place which consist of certain forms of evaluation of individuals that may affect decision-making.[61]

The nature of AI-based automated systems in the legal sector makes it difficult to assess their consequences for the profession. Such adoption will most certainly require a recalibration of the special constraints usually imposed upon those traditionally responsible for the preservation of the rule of law and the protection of fundamental rights. These difficulties multiply in a context, like Uganda's, where laws and policies dictating AI use are patchy at best and never sufficiently accommodative of developing technologies. Case in point is the Data Protection and Privacy Act 2019. The Act lacks an adaptive quality that threatens to render it irrelevant metering the continually changing and evolving

---

[56] ibid.
[57] Michel Cannarsa, 'Ethics Guidelines for Trustworthy AI' 283.
[58] ibid.
[59] Gilmar Rodrigues Cardoso, 'DESAFIO DO ADVOGADO COM O IMPACTO DA INTELIGÊNCIA ARTIFICIAL' (2024) 1 RCMOS - Revista Científica Multidisciplinar O Saber
<https://submissoesrevistacientificaosaber.com/index.php/rcmos/article/view/537> accessed 21 September 2024.
[60] 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.
[61] ibid.

technologies and sectors under its mandate, including AI and machine learning technologies. There is a void over many significant standards of AI use and law including the very definition of key concepts. Even as patchy as it is, the promise of AI in law for countries like Uganda, however, is significant. The ethical and privacy loopholes must be identified early enough to furnish appropriate safeguards to the development of applied AI in law.

## 5. Case Studies and Best Practices

Case studies and best practices are always a good way to understand how emerging technologies or interventions are being implemented. The experiences documented often provide insight into the promises and drawbacks of the technology that one might not otherwise anticipate. Below are examples of both international initiatives and local initiatives involving the use of AI in delivering legal services.

5.1. Uganda Registration Services Bureau - NIRA.

The National Identification and Registration Authority (formerly the Uganda Registration Services Bureau, or URSB) in 2011 commenced an initiative to register citizens for the purpose of issuing a National Identification Card or a National Identification Number (NIN). The total project outlay was calculated at USD 108m between 2011 and 2017. The biographic and biometric data was collected, and the data was used to issue National Identification Numbers and Cards (NINs, NICs) to approximately 14.8 million citizens by 2017. The authority is now moving to digitize records to enable electronic verification of identity. Currently, the authority is collaborating with the Communications Commission to expand the functionalities on the NIRA card to enable citizens to pay for services.

5.2. Case studies of AI in Legal Services.

Artificial Intelligence is already being used in legal services on a wide scale. Below are case studies of regional/international AI-based legal service delivery. a) Blue J Legal - Tax Foresight. Blue J Legal has specific AI applications tailor-made for specific jurisdictions.[62]

---

[62] Benjamin Alarie, Anthony Niblett and Albert Yoon, 'Using Machine Learning to Predict Outcomes in Tax Law' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2855977> accessed 21 September 2024.

The company has AI applications for US federal tax, US state tax, Canadian tax, employment law, and HR departments.[63]

### 5.1. International Examples

The use of AI in the legal sphere is not confined to US jurisprudence. The Singapore High Court has recently used artificial intelligence to deliver a judgment in a dispute between two companies over unpaid bills.[64] The court chose to run the evidence heard in the hearing through AI software. We-itoria worked as the three-judge panel, assisting with decisions that the court should be given. It concluded that the software may be at Brookfield, the winners of the company with bills of Rs23,090,930 ($97,210).[65] An English law firm's own questions or queries are responded to via their own chatbot which is integrated with Amazon Web Services (AI specialist) and uses AI to understand the question and respond to it.[66] This AI Chatbot navigated the GDPR legislation better than a Google search![67]

In the legal profession AI in the Chinese Legal Eagleney, Chinese lawyers have to use AI Power because the courts are starting more and more to accept AI products to resolve disputes.[68] In Sweden BLP (Bech-Bruun) is a law firm who has been going from strength to strength.[69] Germany, an AI-driven platform called Leverton developed by a German Entrepreneur currently residing in the UK, utilizes the technology of 'machine learning' to extract key clauses in leases and then generate a summary in both English and the legal

---

[63] ibid.

[64] Nurus Sakinatul Fikriah Mohd Shith Putera and others, 'Artificial Intelligence for Construction Dispute Resolution: Justice of the Future' <https://hrmars.com/index.php/IJARBSS/article/view/11263/Artificial-Intelligence-for-Construction-Dispute-Resolution-Justice-of-the-Future> accessed 21 September 2024.

[65] ibid.

[66] Deborah Whittle and Lynne Hall, 'APPLYING COGNITIVE COMPUTING TO LEGAL SERVICES' <https://www.scienceopen.com/hosted-document?doi=10.14236/ewic/HCI2022.35> accessed 23 September 2024.

[67] ibid.

[68] '(PDF) "Intelligent Justice": Human-Centered Considerations in China's Legal AI Transformation' <https://www.researchgate.net/publication/362873384_Intelligent_Justice_human-centered_considerations_in_China's_legal_AI_transformation> accessed 23 September 2024.

[69] Michael D Murray, 'Artificial Intelligence and the Practice of Law Part 1: Lawyers Must Be Professional and Responsible Supervisors of AI' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4478588> accessed 23 September 2024.

terms.[70] The UK's civil service has started using chatbots to test legal right in public data.[71] According to the Bar Association of San Francisco "The Evidence Challenge Timeline" (Project Volume of Legal Chances in Stores) is using AI to help train an algorithm to identify stated pieces of evidence.[72] This system will eventually be placed online, enabling people to access legal records that can take years to examine in the hard-copy form.[73] So do we want to move from a fully human approach to a hybrid approach in which both humans and machines collaborate in the delivery of the rationale and of legal advice Produced alongside

## 5.2. Local Initiatives and Success Stories

Deep Tech Creatives Hub (DTH) organised a 2-day legal Techathon (hackathon) at DTH offices in Mengo in December 2020, where teams developed solutions to the legal problems using AI.[74] Eventually, the best teams will have the ideas developed for legal experts to use as part of their legal services. A total of 7 teams participated, and three of the seven exhibited solutions - recommended results as working prototypes at Traffica, Lexden Co-working Space, Kololo.[75] In groups, observing COVID-19 social distancing, teams are developing AI solutions to the access of justice in remote areas where Judicial officers do not visit due to, among others, transportation challenges in Eastern and West Nile regions. The solutions will be considered for funding in the Judicial Service Delivery Innovation Challenge Fund implemented by JLOS institutions and deep tech creatives.

## 6. Future Directions and Recommendations

Future Directions

---

[70] Ahmed Elnaggar and others, 'Multi-Task Deep Learning for Legal Document Translation, Summarization and Multi-Label Classification', *Proceedings of the 2018 Artificial Intelligence and Cloud Computing Conference* (Association for Computing Machinery 2018) <https://dl.acm.org/doi/10.1145/3299819.3299844> accessed 22 September 2024.

[71] Simone Porreca and others, 'Accessing Government Open Data Through Chatbots' (2018) <https://link.springer.com/chapter/10.1007/978-3-319-74433-9_14> accessed 23 September 2024.

[72] Dr Lance B Eliot, 'Legal Forensic Issues In The Use Of AI Algorithms Amid Evidentiary' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3969474> accessed 23 September 2024.

[73] ibid.

[74] 'Deep Learning IndabaX Uganda' <https://indabaxug.github.io/index2023.html> accessed 23 September 2024.

[75] ibid.

In 2019, the World Economic Forum observed that the issues examined in this study are some of the top trending "industry issues," along with the general legal technology industry, which it expects to witness a boost in growth in the future. This alone calls for further studies into the area of AI and its adoption in the legal sector in Uganda. A recent study on challenges the Judiciary grapples with mentioned the skills gap among the Judiciary as one of the hindrances in its operations. It noted that there is a need for manpower capacity-building to keep pace with the fast-evolving technological advancements. It gave a call for the Judiciary now to embark on involving scientists and engineers in the legal system, to write rules that allow what can be done in commercial and other ventures. From this call and demonstrating the seriousness and viability of AI and automated systems, trainings in the law and AI such as those done by the Berkman Klein Center (US) in liaison with MIT and hosted by the Uganda Code clinic, are encouraged to promote its adoption in the legal space.

Recommendations

First, education and sensitization of policymakers, the issue of AI in the law be widely discussed and recognized countrywide in order to create an understanding and interest. In turn, this knowledge can trigger the formulation of policies to guide the sector and ensure the safeguarding of data used if and when the AI algorithms are abused. This could then feed into and guide any such educative materials published by faculties at universities. The JBI can inform and contribute to the kinds of recommendations that could have a heavy bearing on reforming the legal system and practice in Uganda. Secondly, there is a need for education for legal practitioners (practical people such as magistrates, lawyers, court clerks, and judges) about what it is, such as what AI is and can do for their practice or improve the delivery of justice. Thirdly, government and law enforcers/regulators should design regulation for it. It is critical that those with the power to regulate and enforce the adoption of laws formulate policies that will guide AI use. The uncoordinated use of AI poses a risk. If not carefully used, curtailed, and monitored, AI poses a risk for the sector. Efforts should be made to encourage the use of AI that supports the transformation of lives,

creates equity, and supports justice. Finally, there is a need to increase capacities (AI and technology) of all the people who work in the above areas in basic technology and AI as showcased in Table 20: who needs the capacity-building.

## 6.1. Policy Recommendations

1. Evaluation of the existing laws: Parliament, the Judiciary, or the Uganda Law Reform Commission should do a proper evaluation of the existing laws, both substantive and procedural, and come up with revised and well-articulated laws to address the challenges that are likely to be brought about by the introduction of AI in legal practice in Uganda in the near future. This is necessary because the existing laws were made at a time when AI was not present. As a way of ensuring that the laws will be relevant for a long time and effective, several options need to be considered. This should be done after a thorough consultation with all stakeholders.

2. Creation of data protection laws: The Data Protection and Privacy Bill 2015 should be enacted as a matter of urgency. We need proper legislation making sure data security and privacy is mandatory. This is so because naturally, it is the legal professional who is likely to be at odds with the provisions of this Bill regarding individuals' data and information. As a way of ensuring that the laws will be relevant for a long time, it may mean that penalties for non-compliance may need to be increased. This should be done after a thorough consultation with all stakeholders.

3. Collection of empirical data: More research needs to be done in order to collect empirical data on the effects of incorporating AI in legal practice, particularly in Uganda where very little is known about the topic. Data can be collected in the form of a questionnaire survey, interviews, and asset-tracing exercise to establish what the practice is. Parliament may then use the report as part of the evidence to assess the need for the creation of a separate Bill. Data collection can be done through collaboration with some research institutions, legal leading departments, and law reform agencies.

4. Capacity-building: Legal professions need to be imparted with both technical and non-technical knowledge on legal tech and innovation, particularly the aspect of incorporating AI in legal practice for them to adopt the same effectively, without much fear and

reservation. In the same vein, there is no need to waste resources on incorporating AI in legal practice if the intended beneficiaries cannot afford it. Therefore, there is a need for a comprehensive technology policy strategy on investment in AI. This can be done by the government and other key stakeholders.

5. Encouragement in competition: Given the fact that a majority of law firms in Uganda are of small and medium size. In order to achieve economies of scale and scope and compete effectively, these players may need to consider forming partnerships or joint ventures, since they cannot afford incorporating AI into their legal practices in one way or another. Encouragement from the government and other key stakeholders will be so vital.

6. Encouraging the industry to self-regulate: The legal fraternity is encouraged to come up with their own rules to regulate the incorporation of AI in legal practice. The Uganda Law Society and Law Development Council, like some other related professional bodies, have a guardian role. Management of risk comes better in managing the unexpected and coping with variance. Law and AI do not prescribe repertoires of "best actions" but rather seek to enhance capacity for rapid improvisation as the novelty of the threat requires. Both law and AI facilitate distributed and rapid learning across a social network. To achieve this, all stakeholders, with diverse knowledge and perspectives, must have a seat at the "table".

## 6.2. Capacity Building and Awareness Programs

The need for capacity building and awareness of integrating AI in the legal profession is also one of the core areas to be addressed. A pertinent call for particular stakeholders in AI adoption was towards legal professionals, practitioners, court users, and their stakeholders. In order to integrate AI in legal practice effectively (and for the anticipated future impacts with the acceleration of AI adoption in Uganda), there is a need to address the contextual issue of awareness to fully leverage the benefits of a fully functional AIAdopt tool. Stakeholders in the legal ecosystem need to be educated and trained to fully appreciate the implications and benefits from using AI in legal practice.

Awareness creation was also given a pervasive approach. Several legal experts underscored the importance of the training component, particularly for legal professionals who are likely to interact with the end AIAdopt users. "Capacity building is required for law

practitioners and other officers of the law who might interact with the application to appreciate its functions and outcomes." The creation of awareness or training should not be limited to the AIAdopt tool, it should be extended to the wider area of using AI because affecting change can be initiated from learning to use AI - gaining a new perspective from AI. It was commented that public awareness and legal practitioner knowledge is necessary in order to maximize AI's potential and signal that reluctant users have more to gain from AI than they expect. "We should have a lot of people building capacity and interest in AI awareness." Only then can there be a person-centric AI thinking movement within Uganda, because as it stands, as long as legal practitioners and service users don't trust AI, they can't even get to the point of trying the AIAdopt assessment docket. "We should sign a lot of MoUs and have workshops to teach legal and regulatory practitioners to understand the data."

## 7. Conclusion and Recommendation

Despite all the possible negative implications of AI in law, the benefits it may bring should not be brushed aside. It is therefore important to continue examining the actual and potential impacts of computerizing legal practice in Uganda, including by exploring the perceptions of Ugandan legal professionals about the prospects and challenges of incorporating ADR technologies in their work. There are many socio-economic issues that are raised to justify investment in AI research, including in the area of ADR. There is every reason to explore the role that AI can play in promoting social justice in poor marginalized communities, where the technology can, for instance, help reduce case backlogs by making case management more efficient; offering legal information to the general public; providing virtual legal services that may be much needed by those people who otherwise cannot access lawyers, and offering other opportunities to public officials to provide much-needed free or low-cost legal services.

The use of AI systems to conduct document reviews and extract relevant text from within a corpus of documents, categorize contract documents, and many other complex tasks is also of great value to a legal practice. Ultimately, artificial intelligence will quickly review and provide results on a large amount of unstructured data accurately, reducing legal process delays. AI, machine learning, and, for the purpose of this paper, Natural language

processing (NLP), a machine learning technology that gives computers the ability to interpret, manipulate, and comprehend human language., are on the horizon and set to revolutionize the legal industry. It is no longer a question of if, but rather when and how this transformation of legal practice will occur. On the part of Uganda, the incorporation of AI will certainly be a game-changer in the legal profession, especially for the operations of the courts. However, there is a need to consider demarcations of ethics and the kinds of matters AI in law can currently be very effective for, especially as appellate courts do not hear evidence for themselves. In addition to continued expansion in the dialogue between AI engineers and legal academics, we need more experts to be involved in aspects of AI development and law.

## References

Ahmed Elnaggar and others, 'Multi-Task Deep Learning for Legal Document Translation, Summarization and Multi-Label Classification', Proceedings of the 2018 Artificial Intelligence and Cloud Computing Conference (Association for Computing Machinery 2018) <https://dl.acm.org/doi/10.1145/3299819.3299844> accessed 22 September 2024.

Ammar Zafar, 'Balancing the Scale: Navigating Ethical and Practical Challenges of Artificial Intelligence (AI) Integration in Legal Practices' (2024) 4 Discover Artificial Intelligence 1.

Anton Korinek, Martin Schindler and Joseph Stiglitz, 'Technological Progress, Artificial Intelligence, and Inclusive Growth' <https://www.elibrary.imf.org/view/journals/001/2021/166/article-A001-en.xml> accessed 17 September 2024.

Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.

Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.

Babirye Jennifer, 'Harnessing Artificial Intelligence to Promote Sustainable Development in Uganda.' (2024) 5 International Journal of Research Publication and Reviews 5657.

Benjamin Alarie, Anthony Niblett and Albert Yoon, 'How Artificial Intelligence Will Affect the Practice of Law' [2017] SSRN Electronic Journal <https://www.ssrn.com/abstract=3066816> accessed 23 September 2024.

Benjamin Alarie, Anthony Niblett and Albert Yoon, 'Using Machine Learning to Predict Outcomes in Tax Law' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2855977> accessed 21 September 2024.

Chinasa T Okolo, Kehinde Aruleba and George Obaido, 'Responsible AI in Africa—Challenges and Opportunities' (2023) <https://link.springer.com/chapter/10.1007/978-3-031-08215-3_3> accessed 17 September 2024.

Deborah Whittle and Lynne Hall, 'APPLYING COGNITIVE COMPUTING TO LEGAL SERVICES' <https://www.scienceopen.com/hosted-document?doi=10.14236/ewic/HCI2022.35> accessed 23 September 2024.

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.

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.

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.

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.

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.

Evgenia E Frolova and Elena P Ermakova, 'Utilizing Artificial Intelligence in Legal Practice' (2021) <https://link.springer.com/chapter/10.1007/978-981-16-4621-8_2> accessed 23 September 2024.

Evgenia E Frolova and Elena P Ermakova, 'Utilizing Artificial Intelligence in Legal Practice' (2022) 254 17.

Harry Surden, 'Chapter 8 Machine Learning and Law: An Overview' (2021) <https://china.elgaronline.com/edcollchap/edcoll/9781788972819/9781788972819.00014.xml> accessed 23 September 2024.

Herrick K Lidstone, 'Ethical Pitfalls When Lawyers Are Using Artificial Intelligence' [2023] SSRN Electronic Journal <https://www.ssrn.com/abstract=4457790> accessed 23 September 2024.

J Srivastava, A Dixit and J Narayan, 'Artificial Intelligence and the Legal Profession' [2023] International Conference on Green Energy, Computing and Intelligent Technology (GEn-CITy 2023) 366.

J Srivastava, A Dixit and J Narayan, 'Artificial Intelligence and the Legal Profession' <https://digital-library.theiet.org/content/conferences/10.1049/icp.2023.1806> accessed 21 September 2024.

Kenneth Muhangi, 'Overview of the Data Protection Regime in Uganda' (2019) 3 Journal of Data Protection & Privacy 82.

Kenneth Muhangi, 'Overview of the Data Protection Regime in Uganda' (2019) 3 Journal of Data Protection & Privacy 82.

Layet Monica Agech and Onyango Laban Oliver Owin, 'Impact of Artificial Intelligence in Business: What Uganda Needs to Do to Survive the Artificial Intelligence Revolution' [2024] International Journal of Research Publication and Reviews 4503.

Michael D Murray, 'Artificial Intelligence and the Practice of Law Part 1: Lawyers Must Be Professional and Responsible Supervisors of AI' [2023] SSRN Electronic Journal <https://www.ssrn.com/abstract=4478588> accessed 23 September 2024.

Michael D Murray, 'Artificial Intelligence and the Practice of Law Part 1: Lawyers Must Be Professional and Responsible Supervisors of AI' <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4478588> accessed 23 September 2024.

Michel Cannarsa, 'Ethics Guidelines for Trustworthy AI' in André Janssen and others (eds), The Cambridge Handbook of Lawyering in the Digital Age (Cambridge University Press 2021) <https://www.cambridge.org/core/books/cambridge-handbook-of-lawyering-in-the-digital-age/ethics-guidelines-for-trustworthy-ai/E9C6E735730B68941E61D6D7DE549894> accessed 20 September 2024.

Michel Cannarsa, 'Ethics Guidelines for Trustworthy AI' in André Janssen and others (eds), The Cambridge Handbook of Lawyering in the Digital Age (Cambridge University Press 2021) <https://www.cambridge.org/core/books/cambridge-handbook-of-lawyering-in-the-digital-age/ethics-guidelines-for-trustworthy-ai/E9C6E735730B68941E61D6D7DE549894> accessed 20 September 2024.

Nahida Akhter Shemu and others, 'A Machine Learning View for Health Data Mining Emphasizes on the Decision Trees', 2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM) (2020) <https://ieeexplore.ieee.org/document/9051467> accessed 23 September 2024.

Olufemi Olayiwola, Miles Elsden and Mahmoud Dhimish, 'Robotics, Artificial Intelligence, and Drones in Solar Photovoltaic Energy Applications—Safe Autonomy Perspective' (2024) 10 Safety 32.

OV Bessonov, 'The Evolution of Artificial Intelligence In The Field Of Law' [2023] Law and Society 101.

Richard Susskind, 'Artificial Intelligence, Expert Systems and Law' (2012) 5 The Denning Law Journal 105.

Robert M Feinberg, 'Paralegals and Associate Lawyers: Substitutability Within the Law Firm, 1977-87' (1994) 76 The Review of Economics and Statistics 367.

Satish Kumar and others, 'Artificial Intelligence and Blockchain Integration in Business: Trends from a Bibliometric-Content Analysis' (2023) 25 Information Systems Frontiers 871.

Serena Villata and others, 'Thirty Years of Artificial Intelligence and Law: The Third Decade' (2022) 30 Artificial Intelligence and Law 561.

Simone Porreca and others, 'Accessing Government Open Data Through Chatbots' (2018) <https://link.springer.com/chapter/10.1007/978-3-319-74433-9_14> accessed 23 September 2024.

Willem Hendrik Gravett, 'Is the Dawn of the Robot Lawyer upon Us? The Fourth Industrial Revolution and the Future of Lawyers' (2020) 23 Potchefstroom Electronic Law Journal 1.

Willem Hendrik Gravett, 'Is the Dawn of the Robot Lawyer upon Us? The Fourth Industrial Revolution and the Future of Lawyers' (2020) 23 Potchefstroom Electronic Law Journal 1.