# CHAPTER I: INTRODUCTION

## 1.0. Introduction

The history of the ages in this world has taught us that the only constant thing in life on earth is change. Changes in laws, changes in society, changes in generations are happening and will continue to happen. The undisputed fact is that the key driver to all these changes has been one thing called '**technology**'. It has become a regular occurrence that humans become afraid anytime technology evolves to disrupt the old ways.[1] The human fear is the question of what next and what to be done that usually comes to their mind. The legal profession can be castigated for being slow to innovate because it is thought to be bound by various traditions, a privileged status and a desire for high fees with consequence that much legal work is provided for the 'moneyed class', thus reinforcing the perception that the legal profession is elitist and inaccessible to the average person.[2] Accordingly, recents developments in AI, such as natural-language processing and machine learning have challenged the traditional conceptions of human lawyer expertise. Various complex tasks that used to require human effort have been automated in ways that reduce cost and offer greater accuracy and precision, which is a good indicator that legal practice is not immune from these technological advances. That is why machine intelligence will cause a great disruption in the market for legal services regarding discovery, legal search, document, document

[1] Haenlein, M. and Kaplan, A., "A brief history of artificial intelligence: On the past, present, abd future of artificial intelligence", *California Management Review Journal* 61 (2019): 5-14, DOI: 10.1177/0008125619864925

[2] Simpson Brian, " Algorithms or advocacy:does the legal profession have a future in a digital world?," *Information and Communications Technology Law, 25* (2016): 50-61, https://dx.doi.org/10.1080/13600834.2015.1134144

generation, brief generation, and prediction of case outcomes, among others.[3]

Some researchers are of the view that the legal profession, along with many other professions, is immune from the impact of technology on their existence. This is not the same thing as saying that the practice of law does not know how to incorporate new technologies. What this refers to is that while some commentators are now debating which jobs will be replaced by new technologies, many have assumed that professional work cannot be automated because of its nature. Thus while many jobs have been altered by new technologies, the fear that jobs will actually disappear has been reserved for those jobs that are regarded as lower skilled and so capable of being mechanized because they are repetitive. Professional work, on the other hand, is thought to involve much more judgment, evaluation and flair, traits thought to be beyond the capacity of algorithms and machines to replicate. However, the first counter is that this fails to recognize the extent to which much legal work is actually repetitive and structured in a way that can easily be – and better – done by new forms of technology. There are rapid developments in AI which will have significant implications both for the legal profession and for a number of areas of the law itself.

Artificial Intelligence (AI) is the science and engineering of making intelligent machines, especially intelligent computer programs.[4] It is related to the similar task of using computers to understand human

[3] Biresaw, S.M., "The impacts of artificial intelligence on research in the legal profession," *International Journal of Law and Society* (2021) 63-65, http://www.sciencepublishinggroup.com/j/ijlls

[4] Kurzweil, R, "What is artificial intelligence anyway?," *American Scientist, 73* (2007)., 258-273, http://www-formal.stanford.edu/jmc/revised

intelligence, but AI does not have to confine itself to methods that are biologically observable.[5] Intelligence is the computational part of the ability to achieve goals in the world; varying in kinds and degrees of intelligence occur in people, many animals and some machines. This intelligence involves mechanisms, and AI research has discovered how to make computers carry out some of them and not others. If doing tasks requires only mechanisms that are well understood today, computer programs can give very impressive performances on these tasks. Such programs are considered "somewhat intelligent".[6] In more general terms, intelligence is defined as the ability to perceive and process data, transform data into information and ultimately knowledge and use this knowledge towards goal-directed behavior.[7] Effective adaptation of intelligence draws upon the selective combination of a number of processes, including perceiving one's environment, problem solving, reasoning, learning, memory and acting to achieve goals.[8]

With the advent of artificial intelligence, the legal profession will be faced with a challenge to traditional notions in the practice of law as well. These recent advances in artificial intelligence (AI) have given rise to concerns about its impact on the labor market generally, including the legal profession. The legal profession is not in any way exempted by the new technology despite the unique immunity of the legal profession. This immunity has been safeguarded by the

[5] Ibid.
[6] Ibid.
[7] Paschen, J., Kietzmann, J., & Kietzmann, T. (2019). Artificial intelligence (AI) and its implications for market knowledge in B2B marketing. *Journal of Business and Industrial Marketing, 34(7),* 1410-1419. Retrieved May 26, 2022, from http://doi/10.1108/JBIM-10-2018-0295
[8] Ibid.

enactment of the rules of professional conduct and guidelines which govern the civility and ethics of lawyers. Right from the training of lawyers to the selection of judges to the mode of operation of the legal profession, it is still almost the same.

Due to the unique immunity of the legal profession, the impact of previous industrial, scientific and technological revolutions on the legal profession is relatively small.[9] The mode of operation of the legal profession system, even faced with the rapid technological development, seems to have not changed fundamentally.

Despite the legal profession's long-standing hesitancy to adopt new technology, AI has begun to make its mark on the legal profession. As a technology trying to understand the essence of human intelligence and simulate, and extend human intelligence on this basis, artificial intelligence technology can efficiently complete information collection, regulate sorting and implement or imitate the process of legal reasoning by establishing an appropriate computing model in theory, so as to output solutions and the corresponding explanation to the input legal issues.

This study will explore the impact of artificial intelligence on the lawyers' practice of law and analyze the extent to which whether artificial intelligence can replace the work of lawyers in its entirety.

## 1.1 Background of the Study

Artificial Intelligence (AI) is becoming a commonplace technology that helps to complete tasks done by humans. The roots of AI can probably be traced back to the 1940s, specifically 1942, when the

[9] Hu, T., & Lu, H. "Study on the influence of artificial intelligence on the legal profession". *5th International Conference on Economics, Management, Law and Education, 110* (2019): 964-968, https://doi/pdf/10.2991/aebmr.k.191225.184

American Science Fiction writer, Isaa Asimov published his short story **"Runaround."** The plot of Runaround- a story about a robot developed by the engineers Gregory Powell and Mike Donavan which revolves around the Three Laws of Robotics.[10] Asimov's work inspired generations of scientists in the field of robotics, AI, and computer science-among others the American cognitive scientist Marvin Minsky (who later co-founded the MIT AI Laboratory).[11]

At roughly the same time, the English mathematician Alan Turing worked on much less fictional issues and published an article in 1950 titled **"Computing Machinery and Intelligence"** describing how to create intelligent machines and in particular how to test their intelligence. Alan Turing argued that if the machine could successfully pretend to be human to a knowledgeable observer then you should certainly consider it intelligent.[12] This test would satisfy most people but not all philosophers. The observer could interact with the machine and a human by teletype (to avoid requiring that the machine imitate the appearance or voice of the person), and the human would try to persuade the observer that it was human and the machine would try to fool the observer.[13] This Turing Test is still considered today as a benchmark to identify the intelligence of an artificial system.

The word Artificial Intelligence was then officially coined about six years later, when in 1956 Marvin Minsky and John McCarthy hosted the approximately eight-week-long Dartmouth Summer Research Project on Artificial Intelligence (DSRPAI) at Dartmouth College in

[10] Haenlein & Kaplan, 1.
[11] Ibid., 4
[12] McCarthy, J. (2007). "What is artificial intelligence?", Computer Science Department, Stanford University.Revised November 12, 2007, http://www.formal.stanford.edu/jmc/
[13] Ibid

New Hampshire. This workshop marked the beginning of AI and was funded by the Rockefeller Foundation. John McCarthy, who is typically thought to have coined the term AI was an American computer and cognitive scientist, and one of the founders of AI disciplines. Marvin Lee Minsky was an American cognitive scientist in the field of AI and one of the main AI theorists.[14]

Artificial Intelligence is changing the way lawyers think, the way they do business and the way they interact with clients. Artificial intelligence is more than legal technology. It is the next great hope that will revolutionize the legal profession. What makes AI stand out is the potential for paradigm shift in how legal work is done. What will really make artificial intelligence a revolution is to change the thinking of lawyers.

The first significant step on the path of AI was Joseph Weizenbaum's Eliza chatbot, originally demonstrated in 1966.[15] Eliza famously posed as a psychotherapist which provided a framework for its interaction, and was convincing enough to fool some people into thinking that they were conversing with an intelligent machine for a while.[16] While ultimately limited in its application and giving the impression of a trick or novelty, Eliza kick-started research into natural language processing and analysis that have become integral to contemporary AI interfaces.[17] There is a direct lineage between Eliza and, for example,

[14] Biresaw, S. M., "The impacts of artificial intelligence on research in the legal profession". Kutafin Law Review, (2021) https://doi/10.20944/preprints202110.0085.v1

[15] Weizenbaum, J., "ELIZA-a computer program for the study of natural language communication between man and machine, communications of the ACM ", 9 (1996), 36-45.

[16] Ibid.

[17] Tredinnick, L. & Wuisan, F. (2018). Out-of-the-box: artificial intelligence and professional roles. *Angewandte Chemie International Edition, 16(2),* 119-141. Unpublished work

intelligent customer service interfaces used by many companies today. In what was a giant step for computerkind, IBM's Deep Blue, a chess, playing AI that can scan 200 million positions per second and analyze 74 moves ahead, shocked the world in 1997, when it made history by outmaneuvering Gray Kasparov, a chess world champion who, at 22, was eating other grandmasters for breakfast and who had never lost to a human opponent. The rule-bound nature of chess made this a limited achievement, but the victory of Deep Blue was important in part because chess had traditionally been a test case for artificial intelligence, as in for example Turing's 1947 "Lecture on the Automatic Computing Engine".[18]

After two decades, Alpha Zero, a machine that rediscovered thousands of years of human knowledge and highly strategic moves and then invented better moves of its own, was unveiled. By playing itself a million times over, the machine achieved a superhuman level in just hours.

In 1973 to 1976, with the emergence of LexisNexis and Westlaw as research tools and databases, a lawyer's ability to navigate relevant statutes and legal precedent has never been more efficient. They began offering Computer-Assisted Legal Research (CALR), which debuted in the mid-1960s but the first CALR systems were primitive by today's standards and not widely available.[19]

The CALR revolution gained ground with the introduction of Lexis in 1973, which was the first commercial, full-text, electronic database of

[18] Turing, A. (1947). Lecture on the automatic computing engine. Available in Copeland, J.(ed.) 2004), The Essential Turing, Oxford: Clarendon Press, 378-394.

[19] Biresaw, S. M., "The impacts of Artificial Intelligence on Research in the Legal Profession," (2021), https://doi/10.20944/preprints202110.0085.v1

case law and was aggressively marketed to attorneys and judges.[20] In the same year, four New York law firms subscribed to the Lexis legal information service.[21] This event ushered in the start of a new era for legal technology.[22] The Lexis service rapidly expanded because for the first time lawyers had a comprehensive and searchable electronic access to case law, unprecedented in size and scope, which greatly simplified the legal research process.[23]

West Publishing Company followed Lexis in entering the electronic legal research market in 1975. The initial Lexis and Westlaw databases were much more limited. By the mid-1980s, both systems offered a considerable selection of international legal authorities. By 1990, LexisNexis was processing 100,000 online searches in one day; by 1998, that number grew to 600,00.[24] By 1994, nearly all major law firms in the United States had access to Lexis and Westlaw.[25]

Also, luminance, a legal computer software, can highlight important information without needing to be told what specifically to look for, and can read and understand hundreds of pages of legal documents in a minute, freeing lawyers from having to grind through such work. This system was produced by Slaughter and May and the University of Cambridge, backed by Mike Lynch, former CEO of Autonomy. It won the 'Best AI product in Legal' at the inaugural CogW AI

[20] Paul Hellyer, "Assessing the influence of Computer-Assisted Legal Research: A study of California Supreme Court Opinions" (2005), https://scholarship.law.wm.edu/libpubs/5
[21] Katherine M., "Artificially intelligent lawyers updating the model rules of professional conduct in accordance with the technological era". *Cardo Law Review,* 39(2918), 1498-1530, http://cardozolawreview.com/wp-content/uploads/2018/07/MEDIANIK.39.4.pdf
[22] Biresaw, S. M."The impacts of Artificial Intelligence on Research in the Legal Profession," October 5, 2021, https://orcid.org/0000-0001-7078-3643
[23] Ibid.
[24] Ibid.
[25] Ibid.

Innovation Awards in June, 2017.[26]

Like I.B.M. and Luminance, other companies have grasped the enormous potential of Al to serve the legal profession. ROSS Intelligence, similar to Luminance, utilizes software to rapidly sift through thousands of legal documents to bolster a firm's case and in the process, free up the time of lawyers who would usually be relegated to handle such grunt work. ROSS Intelligence is the firm that has built a program that they call "the world's first artificially intelligent lawyer, and in May 2016, BakerHostetler "hired" the service. Unlike existing legal "data providers", ROSS's co-creator describes its services as providing "insight" into the law that is "jurisdictionally aware," and able to provide updates as the law and its interpretation change.[27] ROSS uses IBM's Watson technology, the same technology that defeated humans on *Jeopardy*!-in a way that uses semantics that match not keywords, but similar concepts. It was designed to read and understand natural language, postulate hypotheses when asked questions, conduct legal research, and write through legal memoranda, along with references and citations.[28] Essentially, ROSS uses algorithms to mimic the human brain's learning, analytical, and decision-making process.[29]

Other law firms such as Allen & Overy (with Fuse), Dentons (with Nextlaw Labs), and Thomas Reuters ( with their Elite offerings) are

[26] "Artificial Intelligence and the Legal Profession,"The Law Society- Horizon Scanning, August, 2017, www.lawsociety.org.uk

[27] Vanderbilt University, "Andrew Arruda: Artificial Intelligence and the Law Conference at Vanderbilt Law School", Youtube (May 6, 2016), https://www.yputube.com/watch/v=LF08X5_T3Oc.

[28] Ibid., 6

[29] Andrew Arruda, "Artificial Intelligence Systems and the Law. Peer to Peer Magazine," P.38-39.(2016) http://epubs.iltanet.org/i/696955-summer-2016/37

massively investing in legal tech that performs automated work allocation, predictive data and modeling, transaction mapping, automated matter management, expertise finding etc. Perhaps the most remarkable aspect of Luminance, Ross Intelligence, and other AI services or tools' arrival is not merely their sophisticated software, but rather the possible impact they pose to the legal profession as a whole. Also in February 2018, the AI System developed by lawgeex, an Israeli Legal technology company defeated 20 top lawyers with rich experience in standard business contract review competition. What's more it's average accuracy rate is 9% higher than the human beings and during the whole process, the affairs which human beings need to be furnished within 92 minutes, the system completed them and 26 seconds, it can be said that in terms of speed and efficiency, it has completed double kills human beings.[30]

The widespread use of AI in our daily actions and in an unnoticeable fashion has introduced unprecedented ethical issues to a broad and complex system that requires its regulation.[31] The need and urgency to regulate AI seem indisputable. However, due to the complex nature of the legal profession, the regulatory framework of AI is yet to be completed. In 2021, the European Commission made a proposal for the creation of the Artificial Intelligence Act. The proposed Act if passed into law will be the first of its kind. The European Union (EU) as a major regulator intends to enact the first regulatory framework, an initiative to be the first in the globe, which will subsequently serve as the standard for regulatory framework of AI-based system tools

[30] Ibid.

[31] De Almeida, P., Dos Santos, C., & Farias, J., "Artificial intelligence regulation: a framework for governance." *Ethics and Information Technology 23(2021*): 505-525, https://doi.org/10.1007/s10676-021-09593-z

globally. The proposed Artificial Intelligence Act also aims at protecting the rights of humans as well as the protection of personal data and other cyber affairs which may not necessarily be personal. The provisions of the proposed AI Act will have a significant effect in the development and deployment of AI based system tools across the world thereby, giving the EU, the chance to unilaterally regulate the worldwide standards in relation to AI-based system tools. This cannot be set to take effect forcefully, rather the EU's consumer market which is very strong and its international dealings with other countries places it at the edge and gives it the power to influence the decision of other countries.

However, the regulation of AI is a gradual and continual process. The countries leading the debate are probably ready to coordinate the partnerships and agreements among institutions that are necessary for a comprehensive and effective governance, as well as to initiate a regulation process. Nonetheless, the launch of AI regulation in some countries that have advanced regulations models such as the EU countries, does in itself, guarantee the same safety levels for countries that are unripe in this regard.

The history of AI is, therefore, not just the history of mechanical attempts to replicate or replace some static notion of human intelligence, but also a changing account of how we think about intelligence itself.[32]

The background above makes it clear that AI will become as much part of everyday life as the internet in the past. In doing so, AI will not only impact on our personal life but also fundamentally transform how

[32] Litch, M. & Karofsky, "Artificial intelligence," *Harvard Data Science Review, 1(*2020*)*, 102-129, https://doi/10.1162/99608f92.92fe150c

firms take decisions and interact with their clients. Currently, many AI-based system tools are making decisions on behalf of their users, performing automated tasks, analyzing vast amounts of data, discovery of documents etc. Could it be that AI would replace the lawyers' practice of law? Or would legal practice and advice be handled differently by AI?. It is against this background that this research will look at the impact posed to the lawyers' practice of law by artificial intelligence.

## 1.2 Problem Formulation

The key problem of the legal profession has been with the legal regulators, who see the future of law through the perspective of the professional past, where lawyers alone engaged in the practice of law and everyone else was forbidden entry. In the face of the structural changes driven by technology and globalization, these regulatory responses largely delimit a shrinking professional market.

The legal profession stands out as one of the most conservative professions in human history, often regarded as the noblest profession and the common man's last hope. Law is the only self-regulated profession on earth.[33] It has not changed much since the industrial revolution.[34] It enjoys substantial immunity from outside challengers, particularly in comparison to other professions.[35]

Historically and traditionally, only lawyers can legally engage in the practice of law.[36] Lawyers have always assumed that legal language is arcane, legal knowledge is hard to come by, legal reasoning is a rare

[33] Adeyoju, A.,"Artificial intelligence and the future of law practice in Africa", *SSRN Electronic Journal*, (2019):1-9, https://ssrn.com/abstract=3301937
[34] Ibid.
[35] Ibid.
[36] Ibid.

and specialized skill, and legal problems require an extensively trained specialist to resolve.[37] The profession of law and the practice of law reflects these assumptions, as does legal education.[38] Licensing and regulatory requirements similarly encode this assumption, by emphasizing the difficulty of access to the legal market and the high level of training deemed necessary to do legal work.

Legal experts such Richard Susskind and Jordan Furlong have long been writing about the legal profession's woes and its stubborn adherence to traditional culture.[39] In particular, legal scholars have suggested that because lawyers self-regulate their own market, they will be able to offer strong resistance to the development, use, and integration of machines into legal practice.[40]

As AI technology begins to guide the legal profession, the hackneyed view that a lawyer is the "gold standard" of the legal profession is erroneous. Such a perspective circumscribes innovation in the legal profession as it makes it difficult for lawyers to accept AI as "a helper" rather than "a threat" to the status quo. The status quo of the legal profession is that the legal practice operates, amongst others, via face to face meetings with clients and representation in different forums, appearances in courts and tribunals, legal advice is given to clients and arguments made before Judges, Magistrates and other Judicial Officers. Law firms are notoriously slow to adapt to new technologies.

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[37] Hunter, D. "The death of the legal profession and the future of law", *University of New South Wales law Journal, 43 (2020):*1199-1225, https://doi/10.53637/dvvx3898

[38] Ibid.

[39] Sobowale, J, "How artificial intelligence is transforming the legal profession", (2016, April). .https://www.ABAJOURNAL.COM/MAGAZINE/ISSUE/2016/04/

[40] Alarie, B., Niblett, A., & Yoon, A., "How artificial intelligence will affect the practice of law", *University of Toronto Law Journal, 68(2018)*:106-124, https://dx.doi.org/10.2139/ssrn.3066816

Lawyers are also seen as being technophobic.[41] They (lawyers) haven't exactly been receptive to the notion of using emerging technologies, and specifically AI, in their work.[42]

The emergence of AI in the legal profession has debunked the myth that "lawyers are the gold standard of the legal profession". The lawyers' consensus that a lawyer's job is different, will no longer stand as things are beginning to change. In the landmark case of **Lola V. Skadden**[43] The Second Circuit of Appeals held that, "tasks that could otherwise be performed entirely by a machine" could not be said to fall under the "practice of law" because they have always fallen under the practice of law. Until recently, the answer was that the legal profession would protect itself from the threat of automation by maintaining a professional monopoly over legal work.[44]

The recent developments in AI, such as natural language processing and machine learning have challenged the traditional conceptions of human lawyer expertise. Various complex tasks that used to require human effort have been automated in ways that reduce cost and offer greater accuracy and precision, which is a good indicator that legal practice is not immune from these technological advances.

Typically research on artificial intelligence and the legal profession

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[41] Donahue, L., "A primer on using artificial intelligence in the legal profession". *Harvard Journal of Law & Technology, (2018):*1-8, https://jolt.law.harvard.edu/digest/a-primer-on-using-artificial-intelligence-in-the-legal-profession

[42] Dervanovic, D. "I, inhuman lawyer: developing artificial intelligence in the legal profession *Perspectives in Law, Business and Innovation,* (2018):209-234, https://doi.org/10.1007/978-981-13-2874-9-9

[43] Simon, M., Lindsay, A. F., Sosa, L. & Comparato, P., " Lola v. Skadden and the automation of the legal profession", *The Yale Journal of Law & Technology, 20(2018),* 234-310, https://heinonline.org/HOL/Page?handle=hein.journals/yjolt20&id=234&div=6&collection=journals

[44] Ibid.

has been conducted but to date, there is limited empirical research focused specifically on the impacts of AI on the lawyers' practice of law. It does not require long and hard thinking to assume that the technology required for doing these things is not too far off in the future. In fact, some law firms have already adopted AI and are making use of it.

For the potential benefits of AI to come to fruition in the legal field, there's a need for lawyers to recognize the AI's impact on and within the legal profession. Lawyers will find themselves at a disadvantage if they are unable to adjust their service and business models to incorporate a new technology. As a result, lawyers must reconcile with the continuing spread of artificial intelligence, internet connectivity, and robotics affecting their clients and accept that the dawn of machines has arrived.[45]

AI has the ability to expand access to legal services to parts of society that have historically been shut out. The demand for AI in the law is great, and the potential benefits are undeniable.[46] The problem that this study set to addresses are:

a) The need for lawyers to understand that with AI as a technology not only them can be engaged in the practice of law.
b) The need to assess the impact of AI on the lawyers' practice of law.

[45] Thomas, R.M., "The upgraded lawyer: modern technology and its impact on the legal profession", *University of the District of Columbia Law Review, 21(2019),* 27-57, https://digitalcommons.law.udc.edu/udclr/vol2/iss/4

[46] Drew, S., "Ethical issues in robo-lawyering: the need for guidance on developing and using artificial intelligence in the practice of law", *Hastings Law Journal, 70(2019):*173-213, https://repository.uchastings.edu/hastings_law_journal/vol70/iss/4

c) The need for lawyers to accept AI-based system tools not as a threat to their jobs but as a tool that will lighten their burdens and aid them in achieving clear thinking more readily and with less fatigue.

## 1.3 Research Questions

Based on the formulation of the problem above, the study set to address the following:

1. How does AI as a technology impact the lawyers' practice of law?
2. Whether the use of AI-based system tools in the lawyers' practice of law is effective or not?
3. Whether the use of AI-based system tools in the lawyers' practice of law will replace the work of lawyers or not?

## 1.4 Research Objectives

The objective of this study is to assess the impacts of artificial intelligence on lawyers' practice of law.

## 1.5 Research Benefits

1. The study will aid lawyers on how to use artificial intelligence (AI) tools in easing their work.
2. The study will provide awareness to the general public on artificial intelligence (AI) in the legal profession

## 1.6 Research Authenticity

The study is the researcher's original work except as specified in the acknowledgements and in references. The sources of data and assistance received will be acknowledged. The study reviewed various research papers from reputable journals to understand the depth of

study already done in the field of artificial intelligence and the legal profession. The study uses the following similar journal articles:

Biresaw, S.M. & Saste, A.U., 2022. The impacts of artificial intelligence on research in the legal profession. International Journal of Law and Society, 5: 53-65. Doi:10.11648/j.ijls.20220501.17. http://www.sciencepublishinggroup.com/j/ijls

Fenwick, M. & Vermeulen, E., 2019. The lawyer of the future as "transaction engineer": digital technologies and the disruption of the legal profession, 253-272. https://doi.org/0.1007/078-981-13-6086-2-10

Moore, T.R., 2019. The upgraded lawyer: modern technology and its impact on the legal profession. University of the District of Columbia Law Review Journal, 21: 27-57. https://digitalcommons.law.udc.edu/udc/r.vol/21/iss1/4

Srivastava, R., 2018. Artificial intelligence in the legal industry: a boon or a bane for the legal profession. International Journal of Engineering Trends and Technology (IJETT), 64:13-138. http://www.ijettjournal.org.

However, this study will differ from the above similar research because its adopted empirical research method which generates data directly from the respondents as its own novelty. Where the study will use the ideas and works of others, proper referencing in the text of the study as a bibliography will be done. This study has not been previously submitted as a course requirement for a masters degree in UMY and any other institution.

## 1.7 Theoretical Framework of the Study

Artificial Intelligence (AI) is increasingly expected to disrupt the ordinary functioning of society. There is almost no field of human

activity which is believed to be entirely immune from the impact of this emerging technology. AI has been recognized as having the potential to disrupt many social behaviors, practices and institutions.

This study borrows extensively from the concept of the Legal Disruptive Model and the predictions researchers are making about the future of the legal profession. The study then considers how these predictions may be playing out among the lawyers.

Fenwick and Vermeulen (2019) argued that the ongoing ”digital revolution” will continue to disrupt the legal profession as it has traditionally operated. The “digital revolution” refers to the shift from “analog”, electronic and mechanical devices to computer-based, digital technologies. Digitalization has been driven by a series of technological developments, most significantly, emerging technologies such as AI, robots/automation, blockchain etc. These emerging technologies are disrupting traditional legal practice and creating new challenges and opportunities for the reinvention of the profession.[47]

Fenwick and Vermeulen (2019) highlighted three aspects of this disruption in their theory: “legal tech” and the disruption of legal practice; digital technologies and the disruption of transactions and organizations; and the proliferation of transitional legal risk and the disruption of traditional state-centered forms of legal expertise. They further posit that, as a consequence of these changes, the lawyer of the future will operate under conditions of permanent cognitive and non-

[47] Fenwick, M & Vermeulen, E., “The lawyer of the future as ”transaction engineer”: digital technologies and the disruption of the legal profession Legal Tech, Smart Contracts and Blockchain, Perspectives in Law, Business and Innovation, (2019):253-272, https://doi.org/10.1007/978-981-13-6086-2-10

cognitive uncertainty.[48]

Liu, Maas, Danaher, Scarcella, Lexer and Rompaey (2020) presented a new, integrated, contextual and holistic model for understanding the disruptive effects of AI systems on law. They proposed the "Legal Disruption Model" which both identifies new problems that will prove to be the most structurally challenging for regulation, and a theoretical attempt to draw on the disruptive potential of AI in order to generate new perspectives upon the workings of law and the legal system itself.[49] The assumption framing this model is that only AI or the manifestations of AI that are capable of fundamentally displacing certain core legal presumptions, subvert legal principles, or systematically distort the functioning of the legal system will be considered "legal disruptive".[50] As such, the legal disruption framework sets a high threshold for engagement with AI and is aimed only at identifying aspects of technological change which are turbulent and affect the foundations of the legal and regulatory order. Although this model presents an attempt to address the impact of AI, it is without disadvantages.

The study will employ the aspect of legal tech and the disruption of legal practice in analyzing the impacts of AI on lawyers' practice of law.

## 1.8 Definition of Terms

### 1.8.1 Artificial Intelligences (AI):

[48] Ibid.

[49] Liu, H., Mass, M., Danaher, J.,Scarcella, L., Lexer, M., & Rompaey, L., "Artificial intelligence and legal disruption: a new model for analysis", *Law, Innovation and Technology Journal, 12(2020),* 205-258. https://doi.org/10.1080/17579961.2020.815402

[50] Ibid.

Artificial Intelligence is a collection of concepts and technologies which mean different things to different people.[51] Artificial Intelligence (AI) is a fairly broad concept and is ubiquitous today. Although AI has been widely applied to areas such as medical, finance, education, transportation, courtrooms, and homes, there is no universally acceptable definition of AI. AI is regarded as an umbrella term that refers to a wide range of disciplines and techniques. Machines learning, automation, and robotics are all relevant to or belong to AI technology.[52]

There is little agreement as to what the term means. The technological advances that fall under the rubric of artificial intelligence depend on the point in time that one seeks to define its meaning. The concept changes over time (Alarie, B., Niblett, A., & Yoon, A. 2018).[53] Commonly, AI has been defined as "a system's ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation".[54]

Generally, the term 'AI' is used when a machine simulates functions that humans associate with other human minds, such as learning and problem solving.[55] No one really knows how human intelligence works; so he can hardly expect to fare any better when to turn to

[51] Srivastava, R., "Artificial Intelligence in the legal Industry: A Boon or a Bane for the Legal Profession", *International Journal of Engineering Trends and Technology (IJETT), 64(2018)*: 131-138. Retrieved from http://www.ijettjournal.org

[52] Haenlein & Kaplan, 1.

[53] Alarie, Niblett, & Yoon., 9.

[54] Ibid., 1.

[55] Moore, A., "Carnegie Mellon Dean of Computer Science on the future of AI," 2017, https://www.forbes.com/sites/peterhigh/2017/10/30/carnegie-mellon-dean-of-computer-science-on-the-future-ofai//#3928c652197

artificial intelligence.[56] According to Tredinnick, AI is a general term that currently refers to a cluster of technologies and approaches to computing focussed on the ability of computers to make flexible rational decisions in response to often unpredictable environmental conditions. These strands of AI include natural language processing, machine learning, intelligent agents and rational decision making.[57]

Alarie et. al addresses AI as a somewhat nebulous branch within computer science that seeks to build machines capable of what humans would regard as "intelligent" behavior.[58]

AI, sometimes referred to as cognitive computing, refers to computers learning how to complete tasks traditionally done by humans. The focus is on computers looking for patterns in data, carrying out tests to evaluate the data and finding results (Sobowale, 2016).[59]

Artificial Intelligence is the term used to describe how computers can perform tasks normally viewed as requiring human intelligence, such as recognizing speech and objects, making decisions based on data, and translating languages. AI mimics certain operations of the human mind (Donahue 2018).[60] Image recognition, smart speakers and self-driving cars are all possible due to the advances in artificial intelligence (AI).

Adeyoju opined that AI is not all about robots-machine control (robotics and autonomous machines) is just one aspect of AI research. Other areas include machine learning (deep, supervised, unsupervised,

[56] Nwokike, L.I., "Survey of Nigerian law and policy on artificial intelligence and technology learning for sustainable waste management," *IJOCLLEP, 3(2021)*: *187-198,* http://www.geci.org.ng

[57] Ibid., 5.

[58] Ibid.

[59] Sobowale, 9.

[60] Ibid., 9.

reinforcement and large scale machine learning) and machine perception (computer vision, speech recognition, natural language processing, internet of things).[61] To him, AI is simply described as intelligence displayed by machines, in contrast to natural intelligence displayed by humans and other animals.[62]

Briefly it can be said that AI is basically concerned with developing computer knowledge and effectively and at the same time efficiently uses the knowledge to help solve various business related issues or problems and can accomplish various tasks.[63]

Many researchers think of AI as "the study and design of intelligent agents', where an intelligent agent is a system that perceives its environment and takes actions that maximize its chances of success in a particular task.[64] Some key attributes of an "intelligent" machine include inference, reasoning, learning from experience, planning, pattern recognition and epistemology.[65]

Recognising that 'AI' may denote widely different systems and models, it loosely refers to the collection of computational methods which are being used in the practice of law. This may encompass 'expert systems'- examples of logic or rule-based programming-as

[61] Adeyoju, A., "Artificial intelligence and the future of law practice in Africa", *SSRN Electronic Journal*, (2019):1-9, https://ssrn.com/abstract=3301937

[62] Ibid.

[63] Chattopadhyay, P., Saxena, S., & Siddarth, S. (2020). A conceptual Framework on artificial intelligence and Machine learning and its implication on various fieldsHigh Technology Letters 26(9), 383-391, from https//www.gjstx-e.cn/doi/1006-6748

[64] Bogue, R., "The role of artificial intelligence in robotics", *Industrial Robot: An International Journal, 41*(2014)*:*119-123, https://doi/10.1108/IR-01-2014-0300

[65] Ibid.

well as machine learning systems, which develop and refine their models through analyzing data.[66]

There are many definitions of AI by different researchers but the study prefer the following from the High-Level Expert Group established by the European Commission has defined AI systems as "software (and possibly also hardware) systems designed by humans that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behavior by analyzing how the environment is affected by their previous actions".[67]

Typically an AI system is provided with a training set of data about the subject and its algorithms then identify relationships within the data. This training can be based on humans correcting machines' responses (supervised learning), or simply by the system responding to feedback from its environment ('unsupervised learning' and 'reinforcement learning').[68] For example, the system developed to play the game Go (AlphaGo) was trained on over 30 million moves and was able to come up with moves on Go experts imagined (knight, 2016) when it beat the world champion five games to nil.[69]

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[66] Legg, M. & Bell, F., "Artificial intelligence and the legal profession: becoming an AI-enhanced lawyer," *The University of Tasmania Law Review*, 38(2019): 35-59, https://doi/pdf/10.5040/9781509931842

[67] De Almeida, Dos Santos, & Farias, 7.

[68] Ibid., 6.

[69] Ibid.

AI can be classified into analytical, human-inspired, and humanized AI depending on the types of intelligence it exhibits (cognitive, emotional, and social intelligence) or into Artificial Narrow, General, and Super Intelligence by its evolutionary stage.[70] What all of these types have in common, however, is that when AI reaches mainstream usage, it is frequently no longer considered as such.[71]

Natural language processing and machine learning are specific subfields or applications of artificial intelligence.[72] Both natural language processing and machine learning are seemingly capable of processing large amounts of seemingly unstructured data. The actual process is more nuanced for each.[73]

There are two kinds of AI, at a fundamental level.[74] The first has been called "soft AI".[75] Soft AI is purely focused on mimicking human intelligence and attempts to produce outcomes that to a high degree match those that would have been produced by humans acting alone.[76] Soft AI does this without any attempt to replicate the underlying processes by which humans actually reach those outcomes. Many of the emerging instances of AI in law are examples of this soft AI, including AI tools that aid with document review, e-discovery, legal research, and outcome prediction.[77]

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[70] Haenlein & Kaplan, 1.
[71] Ibid.
[72] Alarie, B., Niblett, A., & Yoon, A. (2018). How artificial intelligence will affect the practice of law. *University of Toronto Law Journal, 68(1)* 106-124. Retrieved December, 16, 2021 from https://dx.doi.org/10.2139/ssrn.3066816
[73] Ibid.
[74] Drew, 11.
[75] Ibid.
[76] Ibid.
[77] Ibid.

One major challenge posed by soft AI is its primary, if not exclusive, use of "observational data". Daniel Katz (2013) explains that, "using large segments of observational data, today's soft AI is built upon modeling what people actually do, thereby allowing a machine to probabilistically emulate their behavior under analogous conditions."[78] According to Drew, this is problematic when trying to emulate the behavior of lawyers because legal strategy often involves considering factors that are not currently observable by machines because certain associated data are never, or at least less often, "datafied".[79]

The second kind of AI, "strong AI", or "hard AI" looks beyond mere outcomes based on inputs, and actually attempts to mimic real human processes. AI that is this advanced is still a thing of the future.[80] Luke Nosek, co-founder of Paypal and the Founders Fund explains that, "we remain stages away from creating an artificial general intelligence with anywhere near the capabilities of the human.

The AI and Legal profession is a subfield of AI mainly concerned with applications of AI to legal informatics problems and original research on these legal problems. AI and the legal profession are also concerned to contribute in other directions like to export tools and techniques developed in the context of legal problems to AI in general. Theories of legal decision making, especially models of augmentation, have contributed to informed representation and reasoning; models of social organization based on norms have contributed to multi-agent systems; reasoning with legal cases has impacted to case-based reasoning; and

[78] Katz, D.M. in Drew, S., " Ethical issues in robo-lawyering: the need for guidance on developing and using artificial intelligence in the practice of law," *Hastings Law Journal, 70(2011),* 173-213, https://repository.uchastings.edu/hastings_law_journal/vol70/iss/4

[79] Drew, 11.

[80] Ibid.

the need to store and retrieve large amount of textual data has resulted in contributions to conceptual information retrieval and intelligent databases.[81] The first serious proposal for applying AI techniques to law was by Buchanan and Headrick.[82]The period includes Thorne McCarty's influential TAXMAN project in the USA[83]and Ronald Stamper's LEGOL project in the UK[84]. TAXMAN project was concerned with the modeling of the majority and minority arguments in a US Tax Law case, Mark Eisner V. Myrtle H. Macomber[85], while the LEGOL project attempted to provide a formal model of the rules and regulations that govern the organization. In the early 1980s there was landmark works in this field which include Carole Hafner's work on conceptual retrieval[86], Anne Gardner's work on contract law[87], Rissland's work on legal hypotheticals[88], and the work at Imperial College, London on executable formalizations of legislation[89]. In 1987, a biennial conference was held and the International Conference on AI and Law (ICAIL) was formed. This conference was the main place for publishing and developing ideas within AI and Law, which led to the foundation of the International Association for Artificial

[81] Srivastava, R. (2018). Artificial intelligence in the legal industry: a boon or a bane for the legal profession. International Journal of Engineering Trends and Technology (IJETT), 64(3), 131-138. Retrieved May 6, 2022, from http://www.ijettjournal.org

[82] Buchanan, B.G. & Headtrick, T.E. (1970). Some speculation about artificial intelligence and legal reasoning. Stanford Law Review, 40-42.

[83] McCarty, L.T. (1977). Reflections on Taxman: an experiment in artificial and legal reasoning. Harvard Law Review, 837-893.

[84] Stamper, R.K. (1977). The LEGOL 1 prototype system and language. The Computer Journal, 20(2), 102-108.

[85] 252 U.S 189 (1920).

[86] Hafner, C.D., "Representing Knowledge in an information retrieval system in Oddy," R et al. (editors) (1981). Information Retrieval Research London: Butterworths.

[87] Gardner, A. (1983). The design of a legal analysis program. AAAI-83

[88] Rissland, E.L.(1983). Example in legal reasoning: legal hypotheticals, IJCAL.

[89] Sergot, M.J., et al. (1986).The British Nationality Act as a logic program. Communication of the ACM, 29(5), 370-386.

Intelligence and Law (IAAIL), whose work was to organize and convene subsequent ICAILs. This, in turn, led to the foundation of the Artificial Intelligence and Law Journal, which was first published in 1992.

### 1.8.2 Natural Language Processing (NLP):

Natural Language Processing (NLP) is defined as "a computer program's ability to understand spoken and written language and is a component of artificial intelligence".[90] NLP, contrary to key word searches, provides a more "spot on " result of the search, bringing the searcher closer to their answer by trying to understand the meaning of the search and thus making the search experience more intuitive and efficient.[91]Gardner in his book review stated that natural language processing, including techniques for story understanding, is most readily applied where stereotypical fact patterns and party roles are recognized. Script-based understanding techniques might prove especially fruitful when restricted to short case summaries, such as headnotes. In general, however, natural language processing in the law confronts the same daunting challenges of language in other domains. The law, as a microcosm of human experience, presents in aggregate the widest range of expression and interpretation, while the sense of even common words is problematic, and shifts with context.[92]

Natural language processing examines the use of words and phrases to draw connections within and across written or spoken language.[93] NLP

[90] Dervanovic, D. (2018). I, inhuman lawyer: developing artificial intelligence in the legal profession. *Perspectives in Law, Business and Innovation,* :209-234, https://doi.org/10.1007/978-981-13-2874-9-9

[91] Ibid.

[92] Ibid.

[93] Gardner, A. (1988). An artificial intelligence approach to legal reasoning. Harvard Journal of Law and Technology,Vol. 1, spring issue, 223-233.

enables machines to adapt when evaluating text. It allows the user to identify materials that are likely relevant to his/her search, even if the materials do not contain words or phrases expressly within his/her list of keywords. NLP applies to both retrieving information (e.g, identifying the relevance of a document) or extracting information (determining the key terms from a document). Given its advantages, natural language processing tools have largely replaced keyword searches in many fields.[94]

NLP looks for structure whenever available. For example, it tags words for its parts of speech (noun,verb, adjective, etc); or draws connections between references, even if the references use different terminology. Here, the patterns analyzed relate to human language use. NLP is important for humans to be able to communicate with computers using 'natural' language (i.e, without necessarily using computer code or inputs), with all its nuances, use of slang and so on. One goal of NLP is to allow people to use everyday language to communicate with computers.[95]

NLP is significant for law and legal applications because so much of what lawyers do is text based. It enables 'plain English' searches to be translated into legal search queries, for example; or can be used for applications like review of documents.[96]

### 1.8.3 Machine Learning:

[94] Ibid.

[95] Legg, M. & Bell, F. (2019). Artificial intelligence and the legal profession: becoming an AI-enhanced lawyer. *The University of Tasmania Law Review, 38(2),* 35-59. Retrieved December 22, 2021, from https://doi/pdf/10.5040/9781509931842

[96] Ibid.

Machine learning refers to the parsing of data to learn, predict, and adopt a decision based on a set of variables.[97] It is another main component of AI. Machine Learning is so revolutionary because programs using this process learn how to give the proper outputs, i.e., correctly accomplish their tasks (or become better), with limited or no instruction as to how they should accomplish the specific task. According to Tom M. Mitchell, machine learning is a natural outgrowth of the intersection of computer science and statistics. Whereas computer science has focused primarily on how to manually program computers, machine learning focuses on the question of how to get computers to program themselves (from experience plus some initial structure). Whereas statistics has focused primarily on what conclusions can be inferred from data, machine learning incorporates additional questions about what computational architectures and algorithms can be used to most effectively capture, store, index, retrieve and merge these data, how multiple learning subtasks can be orchestrated in a larger system, and questions of computational tractability.[98]

This is represented by mathematical algorithms that improve learning through experience.[99] The most revolutionary development in AI is the progress which has been made in recent years in machine learning.[100]

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[97] Zoubin Ghahramani, (2015). Probabilistic Machine Learning and Artificial Intelligence. P. 452-459. Retrieved June 3, 2022, from https://www.nature.com/articles/nature14541

[98] Mitchell, T. M., ". The discipline of machine learning, 2006, . http://www.cs.cmu.edu/tom/pubs/MachineLearning.pdf

[99] Wilkens, U., " Artificial intelligence in the workplace- a double-edged sword," *International Journal of Information and Learning Technology, 37(2020):* 253-265. Retrieved February 23, 2022, from https://doi/pdf/10.1108/IJLT-02-2020-0022

[100] Legg, M. & Bell, F. (2019). Artificial intelligence and the legal profession: becoming an AI-enhanced lawyer. *The University of Tasmania Law Review, 38(2),* 35-59. Retrieved December 22, 2021, from https://doi/pdf/10.5040/9781509931842

Itself an umbrella term, machine learning generally refers to systems which, by analyzing large amounts of data, can detect patterns in that data and build their own computational models to process new and unfamiliar data.[101] Machine Learning is an application of AI in which computers use algorithms (rules) embodied in software to learn from data and adapt with experience.[102] Text analytics and machine learning can be incredibly helpful in helping the data tell its story, thus allowing legal teams and the C-suite to focus their time on nuanced analysis and application of that story to the issue at hand.[103] Machine learning has the potential to provide more objective predictions of how courts will decide discrete legal issues. Once given facts relevant to the question, a machine can situate these facts within the domain of applicable legal precedents.[104] In addition to being less susceptible to various kinds of biases, machines do not suffer from other problems affecting human lawyers exercising judgment.[105]

Machine learning is the process of enabling computers to learn to optimize certain tasks without the benefit of explicit rules-based programming. Machine learning represents a dramatic advance in the evolution of artificial intelligence.[106] As artificial intelligence gravitated to more complex problems involving an undefined or infinite outcome space, machine learning experts developed tools that

[101] Ibid.
[102] Donahue, 9.
[103] Sobowale, J. (2016, April). How artificial intelligence is transforming the legal profession. Retrieved December 13, 2021, from https://www.ABAJOURNAL.COM/MAGAZINE/ISSUE/2016/04/
[104] Alarie, B., Niblett, A., & Yoon, A. (2018). How artificial intelligence will affect the practice of law. *University of Toronto Law Journal, 68(1)* 106-124. Retrieved December, 16, 2021 from https://dx.doi.org/10.2139/ssrn.3066816
[105] Ibid.
[106] Ibid.

identify nuanced patterns in data, beyond what highly skilled, experienced workers could reasonably construct on their own.[107] Machine learning synthesizes large amounts of data-often unstructured- by identifying the components that it observes, and developing algorithms that maximize its predictive accuracy. Machine learning's agnostic approach- choosing an algorithm that maximizes predictive accuracy independent of underlying theory- enables it to leverage connections between and among references, even those that are implied rather than expressed.[108]

Machine learning systems use different algorithms and learn in different ways.[109] Machine learning is frequently mentioned in relation to the concept of prediction, predictive analytics or big data analytics.[110] With the capacity to identify patterns in large volumes of 'messy' data, machine learning can find statistical correlations which would otherwise be unknownable.[111] Machine learning in AI is not like other computer technologies: the magic is not primarily found in programming language, the architecture, or the algorithm, it is found in the data and the complex statistics that generate the knowledge from them.[112] A small number of well-trained lawyer-technologists will do very well as a result of the complexity of this type of knowledge.[113]

### 1.8.4 Deep Neural Networks (Deep Learning):

[107] Ibid.
[108] Ibid.
[109] Ibid., 20.
[110] Ibid.
[111] Ibid.
[112] Hunter, 9.
[113] Ibid

Deep Learning is a technique within machine learning tools that aims to enable example-based learning of machines and autonomous systems.[114]A neutral network is a computer that classifies information-putting things into buckets based on their characteristics.[115] Although artificial neural networks have been around almost since the beginning of AI,[116] the field exploded in 2012 when Krizhevsky, Sutskever, and Hinton demonstrated remarkable results in image classification and object recognition using large-scale multi-layer, deep networks,[117] based on Yann LeCun's earlier seminal work on convolution.[118] At that point, the combination of huge computational power and large datasets made machine learning practical, accurate, fast, and relatively inexpensive.[119]

In order to understand the significance of deep learning to law, it is important to have a basic idea of how these types of approaches work.[120] At its core, deep learning is a statistical method for classifying patterns, based on large amounts of sample data, using neural networks with multiple layers. These multiple layers are the reason these approaches are called 'deep' learning. The networks are constructed with input nodes connected to output nodes via a series of 'hidden'

[114] Jeff Hawkins, 'What Intelligent Machines Need to learn from the Neocortex' (2017) IEEE Spectrum 1. Retrieved from https://spectrum.ieee.org/computing/sofrware/what-intelligent-machines

[115] Donahue, 9.

[116] Rosenblatt, F., "The perception," Cornell Aeronautical Lab., Inc., Ithaca, N. Y., Rept. No. VG-119-G-1, January, 1958

[117] Krizhevsky, A., Sutskever, I. & Hinton, G.E., "Image Net Classification with Deep Convolutional Neural Networks" (Conference Paper,International Conference on Neural Information Processing Systems, December, 2012.)

[118] Yann LeCun, "Generalization and Network Design Strategies" (Technical Report No CRG-TR-89-4, University of Toronto, June 1989), https://amturing.acm.org/2018-turning-award.cfm>

[119] Ibid.

[120] Ibid.

nodes, arranged in a series of layers. The input nodes can represent any data-in the examples of image recognition and speech recognition they involve pixels or words. While the outputs involve the decision or coding that the researcher is looking to classify, for example, the picture classification or the meaning of the sentence. All of the nodes ('neurons') within the network have activation levels, so that a neuron will 'fire' if the nodes connected to it add up to a certain activation level or higher. All of the connections initially have a random weighting assigned to them, but, by using a large training set and a process called back-propagation, eventually the activation levels and weighting are adjusted, to the point where any given input will produce the correct output.[121]

According to Hunter (2020), deep neural networks have made good on the promise that one day machines would be able to learn in the areas of machine vision and speech, and the headline applications of these are self-driving cars, voice recognition systems, speech production, and game playing. Other advances in semantic representation and analysis have tied neural networks to data systems like the web or music databases, and given us the miracle of Google's Pixel Buds earphones translating language on the fly, or Amazon's Aleexa queuing up the National's Light Years' when one says, 'Alexa, play some music that I like'.[122]

### 1.8.5 Lawyers' Practice of Law:

There is no clear consensus on what is meant by the "lawyers' practice of law". The definitions of the practice of law vary greatly from State

[121] Ibid.
[122] Hunter, 21.

to State, and even scholars lack a consensus on what activities the practice of law encompasses, although many argue that it does not include routine services. The practice of law is any service rendered involving legal knowledge or legal advice, whether of representation, counsel or advocacy in or out of court, rendered in respect to the rights, duties, obligations, liabilities, or business relations of one requiring the service.

The lawyers' practice of law was defined in the case of **Cayetano V. Monsod**[123] to mean any activity, in or out of court, which requires the application of law, legal procedure, knowledge, training and experience. The lawyers' practice of law means work performed for the purpose of rendering legal advice or providing legal representation, including: private client service, service as a judge of any court of record; corporate or government service if the work performed was legal in nature and primarily for the purpose of providing legal advice to, or legal representation of, the corporation or government agency or individuals connected therewith; and the activity of teaching at an accredited law school.[124]

Chike (2022) views the practice of law as the rendition of services requiring knowledge and application of legal principles and technique to serve the interests of another with his consent. It is not limited to appearing in court or advising and assisting in the conduct of litigation, but embraces preparation of pleadings and other papers incident to action and special proceedings, conveyancing, preparation of legal instruments of all kinds and the giving of legal advice to clients and all

[123] Cayetano V. Monsod. G.R. No. 100113, September 3, 1991.
[124] <https://www.lawinsider.com>

action taken for the them in all matters connected to law[125]. Sonsteng, J.O. et.al., in their own view holds that, under a system governed by the "**Rule of Law**", it is a great responsibility to teach and train students to be competent lawyers. It should be the commitment, and the promise of law schools, that upon graduation law students will be prepared to practice law. However, this has not been the case and that the primary source of training in legal practice skills has been the lawyers' own experience, law related work during law school, and observations of other lawyers'. Also, the practice of law and the deciding of cases constitute not science but arts-the art of the lawyer and the art of the judge, only a slight part of any art can be learned from books. Whether it be drafting or writing or practicing law, the best kind of education in an art is usually through apprentice-training under the supervision of some men of whom have themselves become skilled in the actual practice of Art[126]. According to them, the legal practice include; library legal research, ; knowledge of the substantive law; legal analysis and legal reasoning; sensitivity of professional ethical concerns; computer legal research; knowledge of procedural law; written communication; the ability to diagnose and plan for legal problems; and legal practice management training in technology, computers, and communication skills.[127]

[125] Chike, O. (2022). Legal Regulation of Business and the Rule Against Unauthorized Practice of Law: A Conceptual Analysis. *Nnamdi Azikiwe University Journal of Commercial and Property Law (NAU.JCPL), 9(3),* 1-16. Retrieved October 23, 2022, from https://www.researchgate.net/publication/364309020.

[126] Sonsteng, J.O, Ward, D., Bruce, C. & Peterson, M. (2007). A Legal Education Renaissance: A Practical Approach for the Twenty-First Century. *William Mitchell Law Review, 34(1),* 302-472. Retrieved October 24, 2022, from http://open.mitchellhamline.edu/wmhr.

[127] Ibid.

However, Turfler differs from these views, according to him, attempts to formulate a definition of the practice of law largely have been met by failure. He contends that the legal community should formulate a model definition of the practice of law to address the issues arising from restructuring the legal services market.[128] Where the lawyers' practice of law has been defined adequately, it will be easier to develop and determine better and more efficient ways of providing legal services to the public. Furthermore, lawyers' by taking the initiative and defining the practice of law, can improve the image of the legal profession in the eyes of the public. This posits that the definition of the practice of law, although often shrugged off as unnecessary or unachievable, actually plays a vital role in the legal profession. Also, if the legal profession is unwilling to formulate a definition, the profession may find itself stripped off by technology in the legal services market. The definition of the practice of law involves what activities are considered to be within the sphere of law.

From the above views, what exactly is the "essence of being a lawyer". What is it that a lawyer does that is the practice of law? How is the practice of law differentiated from all the many legal services lawyers provide?. The lawyer can be seen in one of three ways: as a member of a guild, as an attorney for a client, or as an officer of a court. Each view constitutes a model for how the lawyer should behave and, by implication, suggests the institution which should be responsible for governing the legal profession. The first sentence illustrates the guild model. In this model, the lawyer's first duty is to the profession (or

[128] Turfler, S.F. (2004). A Model Definition of the Practice of Law: If Not Now, When? An Alternative Approach To Defining the Practice of Law. *Washington and Lee Law Review, 61(4)*, 092-1959. Retrieved from https://scholarlycommons.law.whe.edu/while/vol61/iss4/13

guild), "one of the highest and noblest in the world. The second sentence suggests the attorney model, which views the lawyer in relation to his client, to whom he owes his primary duty." The third sentence clearly reflects the court model. The lawyer, as an officer of the court, owes a duty first to the judicial system, and his in-court activity defines this special character.

Once an activity falls within the definition of the practice of law, then it seeks to determine whether a particular non-lawyer can competently perform the service of a lawyer. Therefore, the definition of the practice of law should focus on activity itself, i.e from activity centered perspective. This seeks to determine whether any particular activity should be licensed without regard to the performer's ability.

## 1.9 Limitation of the Study:

The legal profession is a complex labor market, that is to say, the legal profession is highly diverse. This can be illustrated by reference to a number of criteria or characteristics: employment sector (private practice, corporate, government, NGO's), practice structure (sole practitioner, partnership, associates; based on small firms, large law firms, public interest firms, global firms, virtual firms), location (city, suburban, rural, regional), type of client (individuals or entities), type of law (criminal, civil, commercial, conveyancing, etc), approach of practice (adviser, problem solver), judiciary, legal education, among others.

This existing diversity in the legal profession means that artificial intelligence will not happen uniformly or across the board. That is, the diversity of the profession in terms of sector, areas of practice and firm structures means that it is not useful to generalize about the impact of

AI on lawyers or legal practice as a whole[129], as such, the study will only examine the impact of artificial intelligence in the private practice aspect of the legal profession.

## 1.10 Organization of the Study

**Chapter One** of the thesis provides an introduction and sets out the objectives, benefits and purpose of this study, together with a contextual background to access to information regarding artificial intelligence in general and serves as a roadmap for the rest of the discussion. It also provides the theoretical framework, research questions, research limitation and definition of terms adopted for this thesis.

**Chapter Two** provides for a comprehensive review of existing literature addressing the subject of AI from a historical point of view, its development as well as its usage by law firms. Some of the issues included are: the impact of AI on lawyers' practice of law, whether AI can replace the job of lawyers, and research already conducted in this subject area. This review reveals a hiatus in the existing body of research internationally, regionally and nationally, which this thesis attempts to close.

**Chapter Three** provides for the research methodology adopted in the collection of data for the study. It also provides for the type of research, the method of approach, the sources of data, research location, data collection technique, respondents and the data analysis.

**Chapter Four** discusses and analyzes the result of the study collected from the data using the data analysis adopted for the study.

[129] Legg, M. & Bell, F. (2019). Artificial intelligence and the legal profession: becoming an AI-enhanced lawyer. *The University of Tasmania Law Review, 38(2),* 35-59. Retrieved December 22, 2021, from https://doi/pdf/10.5040/9781509931842