

Artificial Intelligence and its Impact on the Nature of the Legal Profession and its Regulatory Framework

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Artificial Intelligence and its impact on the Nature of the Legal Profession and its Regulatory Framework

Nikita Pandit

Abstract

In recent years there has been rampant growth in the interest and development of software that utilises elements of Artificial Intelligence. (Hereafter referred to as “AI”) Particular capacities of AI, such as, Machine Learning, Natural Language Processing and Data Mining have become central to the operation of many law firms today. Law firms, increasingly operating as market leading tech giants are gradually adopting the use of these systems in order to improve both functionality and client service provisions. AI has proven to be an incredibly useful new tool in recent progression towards an increasingly technology heavy culture. However, AI is still very much in its early phases of development and implementation, therefore the possible controversies to which it may lead, although being anticipated, are still uncertain to a large extent. This paper will consider both the current and future exponential use of AI and its impact on the nature of the legal profession and its surrounding regulatory framework.

This paper will present a two-pronged approach: firstly it will consider the impact on lawyers and legal business structures, followed by an analysis of the impact on legal clients and their access to justice. It will then examine the impacts of AI on the nature of the legal profession and on the regulatory framework for lawyers and legal business structures. In discussing the impacts of AI on clients and their ability to access justice, it is suggested that the nature of the legal profession will be altered by client perceptions and that a more stringent regulatory frameworks will be needed to achieve a holistic access to justice. This involves a critique of how the evolution of AI will alter perceptions of legal work and the associated need for a complete upheaval and restructuring of the regulatory framework surrounding the legal professionals and legal business structures.

Introduction

The legal profession is commonly depicted as an elite and exclusive¹ profession. From the beginning of the 19th century, legal professionals have been regarded as highly skilled, uniquely qualified professionals. However, the development and proliferation of AI will alter the discourse surrounding the nature of the legal profession and the manner in which it is regulated. Recent research provides compelling evidence on how the adoption of AI could potentially cut costs and increase access to those seeking legal advice.² Introducing new technologies, such as AI driven models to law firms, might dramatically alter both the firms' operations and profiles. In order to maximise the benefits of AI, lawyers and legal infrastructures will need to adapt. This must begin with an understanding and awareness of the processes needed to mitigate potential risks or challenges. As AI implementation proliferates, there will be a growing need for more stringent regulatory frameworks, to control its operation and to introduce improved liability structures.

Historical Context

Lawyers are perhaps amongst the most well-respected and highly regarded professionals both historically and today. They are continually expected to uphold high practice standards and act in a professional manner at all times. But what does professionalism actually mean? Theorists often contend that professionalism is a concrete concept, cemented in history.³ For example, on one hand, Marxism refers to legal professionals as individuals of a 'professional-managerial class,'⁴ arguing that lawyers effectively serve capitalist goals and are trying to secure their class status in society for all time. Conversely, a functionalist approach suggests that professions, such as lawyers, merely represent a solution to the problems of modernity and capitalism. Functionalism emphasises the consensus and order that exists in society, with a focus on shared public values and social stability. As such disorganisation in

¹ Alan Hunt, 'Marxist Theory of Law' in Dennis Patterson (ed), *A Companion to Philosophy of Law and Legal Theory* (Wiley-Blackwell 2010) <<http://doi.wiley.com/10.1002/9781444320114.ch22>> accessed 1 December 2018.

² Rob Kling, Donald H Berman and Carole D Hafner, 'The Potential of Artificial Intelligence to Help Solve the Crisis in Our Legal System' (1989) 32 *Communications of the ACM*.

³ *Ibid* (Hunt)

⁴ *Ibid* (Hunt)

the system, such as deviant behaviour, could lead to change as social components are forced to adjust to achieve stability. For this reason, functionalists contend that professionals ought not to be servants of the state and therefore they ought to self-regulate.

Although professionalism can be depicted in either of the above ways, it remains a fluid concept, contingent on the social and historical epoch. Throughout history, lawyers have held stance degree of respect and admiration in society and have been acknowledged as possessing a unique and valuable skill set. As some of the tasks undertaken by lawyers is now discharged by machines, will the adoption of AI systems begin to change these views? If unique skills can be taught to machines that perform legal work more efficiently and accurately, can those skills still be considered as valuable? Similarly, if human values and moral order can be encoded into a machine where the outcomes are determined via algorithm, are human values undermined? Might this limit access to justice for clients?⁵ Or will it extend it?

What is Artificial Intelligence?

In its most basic sense, AI refers to the capacity of a computer to perform mundane tasks commonly carried out by humans, including the “ability to reason, discover meaning, generalise, or learn from past experience”. Accordingly it is claimed that AI can find patterns and relationships to allow it to generate responses to dynamic situations.⁶

The facets of AI most relevant to the legal profession are machine learning and natural language processing. As explained by Marchant,⁷ machine learning is the process of a computer being able to accurately identify errors in its process and correct itself to improve for future performance. This means AI is gradually

⁵ Ibid (Bert van Roermund)

⁶ ‘Artificial Intelligence | Definition, Examples, and Applications | Britannica.Com’ <<https://www.britannica.com/technology/artificial-intelligence>> accessed 1 December 2018.

⁷ Gary E Marchant, ‘Artificial Intelligence and the Future of Legal Practice’ (2017) The SciTech Lawyer < <https://www.americanbar.org/content/dam/aba/administrative/litigation/materials/2017-2018/2018-sac/written-materials/artificial-intelligence-and-the-future.authcheckdam.pdf>>

developing into a tool that does not merely blindly adhere to what it was initially programmed to do but can develop iterative approaches to tasks..

Natural language processing refers to a computer's capability to understand spoken or written language and integrate that understanding to perform a analysis akin to that performed by humans.⁸ This is perhaps one of the most fascinating facets of AI and it provides significant opportunities for growth within the legal sector.

Through these innovative means of increased efficiency and productivity, it is evident that these features of AI have already begun to undeniably transform both the nature of the legal profession and the way in which it is regulated.

What does the future hold?

In their book the 'Future of Professions,' Susskind and Susskind state, "Legal institutions and lawyers are poised to change more radically over the next two decades than they have over the last two centuries."⁹ They predict that technology will phase out professional employment prospects, such that people may no longer have the upper hand in professional tasks over machines. The Susskinds argue that the primary asset of professionals is their knowledge. Therefore, as the development of AI offers new prospects of creating knowledge in a palatable and logical format, they suggest that the need for professionals will fade, , inevitably, over time.¹⁰ There have been several publications in support of the Susskinds' view. For example, a recently published report by JPMorgan highlighted the use of an AI computer program which replaced 360,000 billable hours of attorney work, with one concluding observation being that "the software reviews documents in seconds, is less error-prone and never

⁸ Ibid (Marchant)

⁹ Forrest Briscoe and Heidi Gardner, 'Richard Susskind and Daniel Susskind: The Future of the Professions: How Technology Will Transform the Work of Human Experts': [2017] Administrative Science Quarterly <<https://journals.sagepub.com/doi/pdf/10.1177/0001839217716083>> accessed 1 December 2018.

¹⁰ Susskind, R. E., & Susskind, D. (2015). The future of the professions: how technology will transform the work of human experts. <<http://public.eblib.com/choice/publicfullrecord.aspx?p=2186874>.> accessed 1 December 2018

asks for vacation.”¹¹ However, while the attraction of using AI to cut costs and increase efficiency may seem obvious, the social and sustainability effects may be problematic..

In an opposing view, a LexisNexis Report takes the position that although new technology is exciting, this should not cloud the fact that the legal industry is built on people.¹² The report suggests that although the legal landscape will be dramatically altered, AI is subject to a good deal of contingency and it is not on a firm course to replace people in the legal sector, particularly not in the near future.¹³ The Report depicts the legal sector as intrinsically people centred and knowledge heavy and contends that this will not be overturned easily by technological advancements. Amidst such varied prognoses, future expectations and prospects, particularly for junior or aspiring lawyers are left largely indeterminate.

However, it is not lawyers alone who will be affected by the development and implementation of AI. In conducting a study on the clients’ perspectives, the CEO of Herbert Smith Freehills, Mark Rigotti, concluded that there are three main things that clients believe will and should happen as a result of increased AI adoption. Firstly, he proposes that we will see a recasting of the relationship dynamic between lawyers and clients. Secondly there ought to be an open embrace of new business models by legal business structures. Finally, he posits that there needs to be a reshaping of the talent pool, where legal professionals are still able to draw upon top human talent whilst taking advantage of technology.¹⁴ This study is largely indicative of clients’ continued expectations and willingness to rely heavily on the word of their respective legal advisors, as opposed to a preference on an over-reliance upon technology. The study follows basic human instinct, where people, at least for now, trust human decisions and contact more than they trust technological interaction. Clients remain heavily reliant on lawyers’ knowledge and expertise. This expectation and willingness might

¹¹ Hugh Son ‘JPMorgan Software Does in Seconds What Took Lawyers 360,000 Hours - Bloomberg’ <<https://www.bloomberg.com/news/articles/2017-02-28/jpmorgan-marshals-an-army-of-developers-to-automate-high-finance>> accessed 1 December 2018.

¹² Nigel Rea, “Lawyers and Robots” LexisNexis Report <<http://www.lexisnexis.co.uk/pdf/lawyers-and-robots.pdf>> accessed 20 November 2018

¹³ *ibid* (Nigel Rea)

¹⁴ ‘Artificial Intelligence: The Client Perspective | Herbert Smith Freehills | Global Law Firm’ <<https://www.herbertsmithfreehills.com/latest-thinking/artificial-intelligence-the-client-perspective>> accessed 30 November 2018.

be fleeting; as we see further technological advancements providing increased efficiency and accuracy, there may be a shift in clients' attitudes towards lawyers. Could we see a future where clients will eventually trust AI driven models more than they trust human interventions?

At this stage, implementation of AI is generally slow and cautious. Although firms are keen to invest in and facilitate the use of AI driven models, we are currently only seeing this extend to the lowest level of work, where tasks are menial and monotonous. Tasks that require a deeper knowledge or a niche skill set remain with lawyers, and will continue to be do so, at least for the foreseeable future.¹⁵

Impact on lawyers and legal business structures

Nature of the Legal Profession

Historically lawyers have long been regarded to be members of the upper echelon of society. Lawyers' abilities to form elite groups and capture market sectors in order to be able to control the market provides an example of lawyers using their specialist knowledge as an obscurantist device - as Neo-Weberians would argue.¹⁶ The logical and relevant corollary to the Neo-Weberian position is that changes in a socio-economic context, such as the development of AI, will in turn have a direct and substantial impact on the profession and the way in which it is perceived. Similarly, when deriving from the more static functionalist approach, which poses that professionalism is a solution to modernity and capitalism, socio-economic progression is still likely to create dynamic change within the profession, subjecting the inherent function of the profession itself to change.¹⁷ Therefore, it can be assumed with some certainty, that the development of AI is a trigger that will absolutely alter the function of the legal profession and legal business structures as a whole.

According to Klaus Schwab, the founder and chairman of the World Economic Forum, the world is on the cusp of a "fourth industrial revolution" fuelled by

¹⁵ Ibid (Nigel Rea)

¹⁶ Robert Lee, Regulation of the Legal Profession Lectures, Legal Profession 10th October 2018

¹⁷ Robert Lee, Regulation of the Legal Profession Lectures, Tomorrow's Lawyers. 10th October 2018

technological advancements, which combine physical, digital and biological spheres.¹⁸ Schwab argues that this could have an adverse impact on job security and could increase inequality, unless organisations learn to quickly adapt.¹⁹ Whilst this is a largely adopted and accepted view, current developments of AI seem to supplement and assist human intellect rather than posing the threat of wholly replacing the human element within the legal profession. As a comprehensive study of the legal field estimated, AI might only reduce lawyers' billing hours by thirteen percent over the next five years.²⁰ At the same time it may have the capacity to increase the range and volume of services on offer.

In the short term, intuition, experience and the capacity to create solutions that well-trained human lawyers can provide, decidedly surpass those of AI systems. Whilst AI systems are speedy and effective, they are currently only useful as a replacement for low-level, routine tasks. Often a lawyer's role requires empathy and tact; it requires sound judgement and an element of compassion and sensitivity, to provide the premium service that clients expect. Encoding these very human qualities into an algorithmic format of an operative standard is highly challenging. As Marchant notes, important legal skills based on human judgment, inference, common sense, interpersonal skills, and experience will remain valuable for the lifetime of any lawyer practising today.²¹ It is an extremely difficult, if not impossible task – at least in the short term – to replicate the wealth of practical and real experience that human lawyers will inevitably hold.

In the process of automating and mechanising the legal profession, there is a continual and pertinent risk that the very human traits that define legal practice, such as fairness and ethicality, may be lost. There is limited progress in ensuring cognitive reasoning or explanation for decisions made by AI driven models and therefore, often it cannot be said with certainty that decisions made by these models are fair, just or reasonable.

¹⁸ Klaus Schwab, 'The Fourth Industrial Revolution', World Economic Forum, <https://www.weforum.org/about/the-fourth-industrial-revolution-by-klaus-schwab/>.

¹⁹ Ibid (Schwab)

²⁰ Dana Remus & Frank S. Levy, 'Can Robots Be Lawyers? Computers, Lawyers, and the Practice of Law 46 (Nov. 27, 2016) (unpublished manuscript), <https://www.legaltechnology.com/latest-news/can-robots-be-lawyers-computers-lawyers-and-the-practice-of-law/> accessed 10 December 2018

²¹ Ibid (Marchant)

As a result, AI is currently only being relied upon for more menial tasks, that can be more easily encoded.

Although lawyers and legal business structures will both be dramatically altered by the proliferation of AI driven models²², both in terms of how they are perceived as well as with regards to the daily practice of lawyers, I believe the anticipated change will not have as great an impact as is sometimes feared. I do not believe, at least for the near future, that lawyers have the potential to be replaced by computers and machines. As Bill Gates perceptively noted in his book *The Road Ahead*²³, “we always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.”²⁴ Bill Gates succinctly explains human nature tendency to often get ahead of ourselves and ignore practicalities and realities that affect us today. Where AI is concerned there are several hurdles and hoops to overcome and its rampant growth will inevitably create even more. To control and implement the use of AI in the most useful and sustainable way, it is inarguable that regulation must be executed as coherently and precisely as possible.

Regulation within the Legal Profession

The crucial question surrounding the regulatory framework for legal services under the challenges that AI presents, is: which elements of AI can safely and with good conscience be left to ethics, and which need regulation by law? As argued by Paul Nemitz, there is much that needs law.²⁵ If AI continues growing at breakneck speed and is increasingly capable of making decisions that will affect people, there should be a reliable framework within which AI driven models are required to show intelligible reasoning within their decision-making process.²⁶ By law, it should be a necessity that a decision-making AI system ought to disclose that it is machine driven

²² Ibid (Marchant)

²³ Bill Gates, Nathan Myhrvold, and Peter Rinearson. (first published in 1995) *The Road ahead*. New York: Viking 7th Edition

²⁴ Ibid (Gates)

²⁵ Corinne Cath, ‘Governing Artificial Intelligence: Ethical, Legal and Technical Opportunities and Challenges’ (2018) 376 *Phil. Trans. R. Soc.*

<<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6191666/>> accessed 28 December 2018

²⁶ Ibid (Cath)

and should not operate under the guise of a human. There should be no uncertainty for clients as to how the decisions that affect them, are reasoned and formed. When decisions are made by lawyers there is clarity in the process and an established liability framework set out by law, which clients find comforting. Until such a framework is mirrored in the regulation of AI driven models, adoption and acceptance of such models for more meaningful legal tasks will be extremely limited.

According to Paul Nemitz, the principal advisor and one of the architects of the General Data Protection Regulation, not regulating these all pervasive and often decisive technologies by law could effectively amount to the end of democracy.²⁷ He contends that the absence of a stringent framing for the internet economy has already led to a widespread culture of disregard of the law and has put democracy in danger.²⁸ In his argument, Nemitz recognises four facets of technological advancements which initiate and reinforce its unhealthy concentration into a few hands. He cites; the abundance of money; control of infrastructures of public discourse; collection of personal data and profiling of people; and the domination of investment in AI. All of these factors mean that most of AI is essentially a “black box” that has not been opened to public scrutiny.²⁹ Whilst I largely agree that the power behind AI technology is concentrated within a few hands as expertise and knowledge required to build many AI driven models is niche and not easily accessible, it may be possible to argue that AI does, to some extent, provide a new layer of transparency and clarity that did not previously exist. Information that would have previously have been largely inaccessible because of old filing systems or dated documentation processes, has now come to be widely available through the storage, memory and access of AI driven models.

However, in order to build and fuel the public’s trust and acceptance of AI driven models, it is essential that an adapted regulatory framework is created, applied and used rigorously. To do this there should be stringent rules that ought to be met whilst

²⁷ Paul Nemitz, ‘Constitutional Democracy and Technology in the Age of Artificial Intelligence’ (2018) 376 *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 20180089.

²⁸ *Ibid* (Nemitz)

²⁹ *Ibid* (Nemitz)

using AI.³⁰ Similar to the strict application of legal tests that are applied to test the legitimacy of laws, the laws that govern AI should include rules that enforce elements that are crucial to the legal process such as - consistency with fundamental rights, due process and proportionality. In creating a legal framework that applies these principles and provides a clear outline, more transparency could be created which would instil public confidence in AI driven models.

Lack of regulation will inevitably lead to a lack of public trust. In the United States, the rapid developments of AI within the court system have raised questions surrounding issues of bias.³¹ There is a lack of clarity concerning liability structures as it cannot always be determined which particular individual or even how many individuals devised a particular code within an AI driven model. This inconsistency can often lead to the creation of subconscious bias. As argued by the Canadian lawyer magazine, whilst algorithms are usually coded to be neutral, the programmers entering the code might not be.³² The magazine argues that programmers, not necessarily through any fault of their own, are likely to operate with some inherent, subconscious assumptions that may lead to a bias.³³ It is normal human nature to be loaded with preconceptions or predefined notions and data encoders are not exempt from this. The generation of automatic bias in the data that is input into supposedly legally sound systems, is a cause for concern. For example, the tool COMPAS (Correctional Offender Management Profiling for Alternative Sanctions) used in the United States to determine recidivism rates, was found to be highly prejudiced against black male defendants. Black male defendants were often incorrectly judged to be at the highest risk of reoffending as compared to white female defendants who were continually marked low risk.³⁴ These results produced by encoded algorithmic data, do not account for innate social acts within systems that may generate this very

³⁰ Paul Chadwick, 'To Regulate AI We Need New Laws, Not Just a Code of Ethics | Paul Chadwick' *The Guardian* (28 October 2018) <<https://www.theguardian.com/commentisfree/2018/oct/28/regulate-ai-new-laws-code-of-ethics-technology-power>> accessed 30 November 2018.

³¹ Find ref

³² 'Artificial Intelligence | Canadian Lawyer Mag' <<https://www.canadianlawyermag.com/article/artificial-intelligence-3585/>> accessed 2nd January 2019.

³³ VR Ferose and Lorien Pratt, 'How AI Is Disrupting The Law' <<https://www.digitalistmag.com/digital-economy/2018/04/03/ai-is-disrupting-law-06030693>> accessed 2 December 2018.

³⁴ Julia Angwin Jeff Larson, 'How We Analyzed the COMPAS Recidivism Algorithm' (*ProPublica*, 23 May 2016) <<https://www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm>> accessed 2 December 2018.

outcome. The data that is input by programmers into the AI driven models, may be statistically accurate, however often the decisions and outcomes are remain skewed. Repeatedly, largely influential factors such as the racial bias in the ‘stop and search’ culture is unaccounted for, leading to inevitably biased results. The racial bias in the ‘stop and search culture’ refers to, for example, the fact that black people are nine times more likely to be stopped and searched for drugs despite the fact that it has been concluded that white people are more likely to use and abuse drugs.³⁵ An AI driven machine has no way of accounting for influential factors or imperative details such as this in its decision-making process, unless it is initially encoded. In response to this, if regulatory provisions are implemented to produce a more transparent process of development of AI models, clarity and objectivity must be ensured. If a strict legal framework requires AI driven models to show logical reason for outcomes, bias could be eradicated or at the very least minimised. Additionally, and perhaps more importantly, it is imperative that regulatory provisions set out guidance for accountability and liability. If and when outcomes of AI driven models go wrong, which they very easily could, there ought to be a legal framework to hold either individuals or entities responsible. A failure to do so would undermine confidence in the future of AI, as clients would not be willing to risk outcomes if they did not have an identified party to call into account.

Another facet of AI that it is imperative to regulate is that of data confidentiality. AI service providers must be held to exceptionally high legal standards with regards to their access and use of personal or other data sets. However, this a challenging area to regulate as there are several unanswered questions about data input itself. The question that is often raised is; how can one individual be liable for an outcome that was determined based on data input by several individuals?

As identified by the LexisNexis Report, the development of AI calls for an upheaval and restructuring of the legal regulatory environment. The report contends that legal regulation will have to develop a new vocabulary of guidelines and frameworks, “not only in order to stymie development in the field, but to evolve new ways to think

³⁵ Mark Townsend, ‘Racial Bias in Police Stop and Search Getting Worse, Report Reveals | Law | The Guardian’ <<https://www.theguardian.com/law/2018/oct/13/racial-bias-police-stop-and-search-policy-black-people-report>> accessed 3rd January 2019.

about criminality, ethics and responsibility from a bottom-up understanding of how the field is developing.”³⁶ This will be a murky area to navigate as it will require a complete review and re-think of liability structures. As AI driven models are the product of multiple codes developed by multiple coders, this can result in uncertainty as to how the components work and how the product analyses the data and makes decisions.³⁷ Ian Sample discusses the call from scientists to introduce an ‘ethical black box’ into robots, which will aim to ensure that any decisions that are made by them will be on record and there will be methods to access explanations of how AI driven models have arrived at their decisions.³⁸ This could possibly be difficult to introduce and implement, as an ‘ethical black box’ would require AI itself to be able to carry out the desired functions, this does seem to be an important step in the right direction. With regards to ensuring justice in decisions made by AI driven models, an ‘ethical black box’ seems like an apt response to providing the desired level of clarity. However, this ethical black box will also have to be encoded. The ethical discrepancies or inconsistencies identified by this black box will merely be a result of encoded algorithmic data. Therefore, it ought to be asked - does this truly solve the problem? Or does it simply create more problems whilst providing a guise of morality and integrity? Clients need clarity, but will an ‘ethical black box’ provide the desired clarity or merely the impression of it? As can be seen here, the impacts of AI in the legal world stretch far beyond lawyers and legal business structures. AI is likely also to have large and permanent impacts on clients.

Impacts on Clients and Access to Justice

Nature of the Legal Profession

³⁶ Dennis Garcia, ‘Preparing for Artificial Intelligence in the Legal Profession’ <<https://www.lexisnexis.com/lexis-practice-advisor/the-journal/b/lpa/archive/2017/06/07/preparing-for-artificial-intelligence-in-the-legal-profession.aspx>> accessed 2 December 2018.

³⁷ Will Knight, ‘The Dark Secret at the Heart of AI’ (*MIT Technology Review*) <<https://www.technologyreview.com/s/604087/the-dark-secret-at-the-heart-of-ai/>> accessed 2 December 2018.

³⁸ ‘Questioning AI: What Can Scientists Learn from Artificial Intelligence? – Science Weekly Podcast | Science | The Guardian’ <<https://www.theguardian.com/science/audio/2018/jan/17/questioning-ai-what-can-scientists-learn-from-artificial-intelligence-science-weekly-podcast>> accessed 2 December 2018.

AI will undoubtedly have significant and lasting impacts on clients and their access to justice. The ancient ideal referring to access to justice, presents itself in a classical definition as put forward by Aristotle, that justice is 'suum cuique' or 'to each his own.'³⁹ As time progressed, notions of commutative and reciprocal justice emerged. Most recently, the largely adopted approach today is, as developed by the Romans, the notions of distributive justice, where it is stated; "Render to all their dues; tribute to whom tribute is due, custom to whom custom, fear to whom fear, honour to whom honour; owe no man anything but to love one another."⁴⁰ As put forward by the Romans, the idea of distributive justice is an extension of the utilitarian notion that maintains that when the greatest good for the greatest number of people is achieved, that is true justice.

It is universally accepted that justice is a foundational element in the implementation and practice of the law, therefore access to this foundation must, under no circumstances be denied. With an ever-changing climate, in terms of technological advancements, will access to justice be denied or at the very least be inhibited as a result of AI? How will this change how client perceive the nature of the legal profession?

Christine Parker accurately encompasses the various facets that justice includes. She contends that justice embraces a complex set of interacting variables including entitlement, justification, equality, impartiality, proportionality, reciprocity, rectification, need, desert and participation.⁴¹ When considering AI, it is inevitable that each one of these facets will be directly impacted. Entitlement and justification could cease to exist if decisions are computer generated, as a result of the lack of regulatory frameworks. Equality, impartiality and proportionality could be limited, as inherent encoded bias will form the basis of decisions. Reciprocity and rectification may prove challenging if there is limited human intervention. Need, desert and participation and their role in Parker's wheel of justice, might altogether disappear, as these are very human qualities that cannot be encoded easily.

³⁹ Anton-Hermann Chroust & David L. Osborn, Aristotle's Conception of Justice, 17 Notre Dame L. Rev. 129 (1942) <<http://scholarship.law.nd.edu/ndlr/vol17/iss2/2>>

⁴⁰ Robert Lee, Regulation of the Legal Profession Lectures, Legal Profession. 10th October 2018

⁴¹ Lisa Webley, Regulation of the Legal Profession Lectures, Legal Aid. 5th December 2018

In considering Parkers comprehensive notion of justice, it is possible that the future could see a rethinking and re-evaluation of contemporary notions of justice, where we could go backwards to Aristotle's 'sum cuique' definition, where justice is seen a notion of 'to each his own'. AI driven models would fit better within this notion due to its individualistic nature, as compared to its misguided place within distributive justice. This is one example of how AI could possibly cause us to take a step backwards in an otherwise rapidly forward-going area of growth. This will inevitably change the way that the nature of the legal profession is perceived.

AI software presents excitement and unprecedented growth potential as well as risks and areas of uncertainty. As argued by Goodman, AI represents both the biggest opportunity and potentially the greatest threat to the legal profession since its formation."⁴² Placing decision making responsibility on machines and allowing them to make judgement on matters of subjectivity can largely skew whether justice is actually being delivered. Can a machine, however well encoded and well informed, serve fair, just and reasonable decisions? It is difficult to not be highly sceptical of the implementation of such a system.

We are currently in a position where, through online platforms, we have access to more information, intelligence and opportunity than ever before. If used properly and regulated stringently, there is potential to entirely revolutionise the means and methods of the delivery of justice. However, to be successful in truly delivering justice, there is still a long way to go. The development of Rechtwijzer, is an example of the potential use of AI within the legal profession.⁴³ Rechtwijzer was an online-based dispute resolution platform that was created to support people throughout their legal journey, effectively placing justice into clients' hands. Or more accurately, in the machines' hands. It was a system encoded to follow guided pathways to come to reasoned conclusions, based on clients' specific queries. Clients would input details of their case through the means of online forms and Rechtwijzer would generate advice

⁴² Joanna Goodman, *Robots in Law: How Artificial Intelligence Is Transforming Legal Services* 3 (2016)

⁴³ 'Rechtwijzer: Why Online Supported Dispute Resolution Is Hard to Implement | Law, Technology and Access to Justice' <<https://law-tech-a2j.org/odr/rechtwijzer-why-online-supported-dispute-resolution-is-hard-to-implement/>> accessed 1st January 2019.

with the help of previously encoded data pathways. The AI driven model of Rechtwijzer did not have the core capacity to reason for itself.⁴⁴ Even if factually correct information is programmed into a computer and this is used via a methodical approach to determine a supposedly just outcome, it can be argued that biased data was initially entered. Factually correct data can in fact be biased data, as machines do not have the ability to account for existing external factors. This can and will inevitably lead to inaccuracies in the delivery of justice.⁴⁵

The development of Rechtwijzer demonstrated that we are on the cusp of being in a position where we are able to use the interactive capacity of the internet as a provision of legal services. Although Rechtwijzer was not successful for financial reasons, similar new developments could easily be prosperous. It is possibly a significant step in attaining a more society-wide, easily attainable method of access to justice, however the question remains - will justice actually be achieved?

It is widely believed and agreed that the use of AI will be a positive change for clients and their access to justice. It is understood that technology will provide an element of transparency where legal solutions will be extensively available on accessible platforms and therefore it will be easier for clients to reach information quickly and affordably. These presuppositions will only be successful if it is executed faultlessly. It is however entirely possible that AI will wholly bypass the access to justice sector of the legal world, as access to justice is more often desired and required by people of a lower socio-economic group, for everyday problems. Unfortunately these problems are often considered less important and so access to justice in this context is often relatively low on priority lists.

Regulation within the Legal Profession

⁴⁴ Ibid (Rechtwijzer)

⁴⁵ Ibid (Feroose and Pratt)

Without strict regulation, AI implementations may fail to fully incorporate measures to improve access to justice, thereby leaving it as a “messy, old fashioned, paper and oral based legacy, of what for the rest of the legal world, is a former way of working.” Access to justice is primarily concerned with people who are living hand to mouth existence. Their needs are continually being attempted to be addressed with capped resources and endless workloads. AI might just prove to be too time consuming and too expensive to introduce and have a successful impact within the access to justice sector of the legal industry.

As Smith argues, access to justice could in fact be limited by the growth in AI.⁴⁶ In his article, Smith puts forward the idea that people who are common users of the access to justice provision are more likely to be individuals that are less comfortable with the use of digital communication and interaction than professional or business users. He asserts that these individuals will have disproportionately high levels of resistance to technological, cultural, language, cognitive and physical digital communication, thereby limiting their use and access.⁴⁷ This could mean the lack of stringent regulatory methods result in the failure to provide AI to clients in the adequate format that is needed in order for true access to justice being achieved.

Additionally, the growth of computerised analysis and data interpretation could potentially cause “the textbook to become redundant,” as recognised by Smith.⁴⁸ In terms of access to justice, this could mean that areas of social justice laws are the last to be implemented onto computerised systems therefore severely restricting or inhibiting access to justice during the transition period.⁴⁹ Corporate, commercial and financial needs are often prioritised, possibly causing a holistic approach of access to justice to be overlooked or surpassed entirely. If it is not given priority, with the limitations in resources and funding, it could be that in the future, if and when AI driven models are the primary means of accessing and delivering legal advice, those very AI driven models do not account for laws that provide universal access to

⁴⁶ Roger Smith, ‘How Will Artificial Intelligence Impact on Access to Justice? | Law, Technology and Access to Justice’ <<https://law-tech-a2j.org/ai/how-will-artificial-intelligence-impact-on-access-to-justice/>> accessed 30 November 2018.

⁴⁷ Ibid (Smith)

⁴⁸ Ibid (Smith)

⁴⁹ Ibid (Smith)

justice and often leave behind the poorer members of society in most pressing need of access to legal advice and assistance.

David Curle, at the American Association for Justice talks about the importance of understanding that AI will have an impact across the entirety of the legal system, from small low-income claims to international transactional deals.⁵⁰ Most commonly, access to justice is thought of as legal aid for lower income brackets, however the reality according to Curle is, that the promise of AI and other legal technologies will be better for all its participants if everyone has access to information and systems that make justice more readily available with fewer resources.⁵¹ Although Curle makes a good point, it seems far more likely that for the foreseeable future at least, encoding data that is completely free from any bias will be an almost impossible task, regulatory frameworks to guard the justice system await adaptation to AI.

Conclusion

There is a vast variation in opinions on the introduction and implementation of AI into the legal profession. Some contend that AI will provide exceptional transformations to the legal profession and entirely change the nature of the profession and how it is perceived whilst others are sceptical that the introduction will be of as great a magnitude as is sometimes anticipated. Whilst there is little contention that AI will in fact dramatically alter the legal landscape, the extent to which this will happen is contested by scholars.

Artificial Intelligence in legal service delivery is an undoubtedly an area of unprecedented growth and although this is extremely exciting the legal profession, it is also an area that needs to be closely monitored and regulated. Over the next few years, entities such as the Solicitors Regulation Authority and the Bar Standards Board may be forced to overhaul and recreate many of their regulatory standards to ensure that the use of AI is tightly monitored. Although the nature of the legal profession remains largely unchanged in terms of the public perception that it is a

⁵⁰ David Curle, 'AI in Legal and Access to Justice | Legal Current' <<http://www.legalcurrent.com/ai-in-legal-and-access-to-justice/>> accessed 2 December 2018.

⁵¹ Ibid (Curle)

generally well-respected, highly-regarded profession, it is undeniably obvious that breakthroughs in AI could change this perception almost overnight. However, until AI driven models have the ability to reason with themselves and provide justification for their decisions, effective access to justice cannot be achieved and therefore human knowledge, expertise and decision-making abilities are likely to be at the forefront of offering a premium legal service for many years to come.