

ARTIFICIAL INTELLIGENCE: REGULATORY APPROACHES & IMPLICATIONS ON THE LEGAL PROFESSION & DELIVERY OF JUSTICE

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Artificial intelligence systems have increased in prominence over the last couple of years. Specifically, new services such as ChatGPT, Dall-E and Stable Diffusion, have created headlines since 2022 as disruptive artificial intelligence system, and the legal profession and judiciary are not immune to such disruption. This paper seeks to examine the benefits and challenges of artificial intelligence systems on regulation, the practice of law and the judiciary. Specifically, it examines some of the potential risks of the integration of artificial intelligence in the practice of law of which practitioners ought to be aware, including an examination of copyright implications, regulatory concerns and privacy risks. The paper also seeks to provide suggestions for the management of such risks, identifying solutions for attorneys, regulators and judges.

I. INTRODUCTION

Artificial intelligence ("AI") has become a part of our everyday lives. From Siri to Alexa², we have grown accustomed to technology at our fingertips, improving our lives. AI, however, is not a new phenomenon, as the field of artificial intelligence was coined as early as 1956. Specifically, AI describes any technique that enables computers to mimic human intelligence, using logic, if-then rules, decision trees and machine learning.³

While AI is not new, the recent advances have been made possible by a subset of AI techniques popularly known as deep learning, or deep neural networks/nets, which permits software to train itself to perform tasks after locating large amounts of data.⁴ The emergence of services designed to generate works, or generative AI, like Chat GPT, Dall-E and Stable Diffusion have the potential to disrupt various industries. ChatGPT is a chatbot developed by OpenAI. It was launched in November 2022 and has been dominating headlines since then. It is built on top of OpenAI's GPT-3 family of large language models and has been fine-tuned using both supervised and reinforcement learning techniques. The service allows the user to input a question, which the bot then uses to generate output tailored to the question.

ChatGPT represents the promise of AI. In fact, this writer has relied on ChatGPT for several portions of this paper. When prompted for guidance on how ChatGPT should be credited, its response was:

"As an AI language model, I cannot be credited as an author of a scholarly article. However, if you have used my responses or information obtained through me in your research, you can acknowledge my contribution in the following ways...through in-text citation...or references..."⁵

The writer was then provided with the in-text citation at footnote 5 for use in referencing.

Concerns have been raised by the education sector regarding students potentially plagiarizing and passing off as their own work output produced by ChatGPT, raising concerns about

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² Siri and Alexa are virtual assistants offered by Apple and Amazon respectively, which use speech-recognition technology to enable users to interact with their devices using voice instruction.

³ 'Artificial Intelligence: The Future of Humankind' *Time Magazine* (29 September 2017) 7

⁴ Ibid

⁵ ChatGPT. "What are the benefits and challenges of using AI in the legal profession?" (2023, February 16). Retrieved from <https://github.com/chatGPT/chatGPT>

copyright laws and intellectual property concerns. The legal profession has not been immune to such concerns. Recently, a judge in Colombia caused a bit of a stir by admitting that he used ChatGPT when deciding whether an autistic child's insurance should cover all the costs of his medical treatment.⁶

AI, and other emerging technologies, are therefore no longer in the distant future, as the creators of the Jetsons⁷ thought, but is certainly here now, and will only develop and improve in years to come.

This paper seeks to examine the benefits and challenges of artificial intelligence systems on regulation, the practice of law and the judiciary. Specifically, it examines some of the potential risks of the integration of artificial intelligence in the practice of law of which practitioners ought to be aware, including an examination of copyright implications, regulatory concerns and privacy risks. The paper then concludes by providing suggestions for the management of such risks, identifying solutions for attorneys, regulators and judges.

II. DUTY OF TECHNOLOGICAL COMPETENCY

Disruption in the legal profession

In 1998, noted scholar, Richard Susskind predicted that the internet was about to precipitate huge changes in legal practice and the administration of justice. He theorized that the disruptions caused by the world wide web and the "*dot-com boom*" would create a shift within the legal profession, and that attorneys would have to package and sell their expertise in innovative ways for a very different market for legal knowledge and expertise.⁸ Susskind envisioned the emergence of virtual legal libraries, the rise of multimedia and proposed that electronic mail would evolve to be the primary means of client communication. Such predictions drew the ire of several practitioners, who could not conceive the replacement of the written letter with e-mails.

In 2023, having grappled with the disruption caused by the pandemic of the last couple years, we know that the embrace of technology is critical for the survival of the legal profession and the administration of justice. In his latest edition of his book, *Tomorrow's Lawyers*, Susskind accepted that telework arrangements and remote court hearings have resulted in the deployment of some of the technologies he envisioned. However, he asserted that a seismic transformation in the delivery of legal services, fueled by automation and AI is still imminent, and needs to be embraced by the profession in order to survive, given technological advances and potential displacement of legal services. He states, "*the pandemic accelerated automation and decelerated innovation in the world of law*".⁹ These observations require practitioners to consider the implications of disruptive technology and how to integrate them into their practice.

Is there an ethical duty for legal practitioners to be technologically competent?

The American Bar Association ("ABA") appears to place the observations of Susskind to a higher standard. Under the ABA Model Rules of Professional Conduct ("ABA Model Rules")

⁶ Luke Taylor, 'Colombian judge says he used ChatGPT in ruling' (*The Guardian*, 3 February 2023) <<https://www.theguardian.com/technology/2023/feb/03/colombia-judge-chatgpt-ruling>> accessed on 16 February 2023

⁷ The Jetsons is a cartoon television programme from the 1960's which envisioned life in the future with video calls, automated homes and other advances.

⁸ Richard Susskind, *The Future of Law*, (1st Edn, Clarendon Press Publication, 1998)

⁹ Richard Susskind, *Tomorrow's Lawyers*, (3rd Edn, Oxford University Press, 2023)

Rule 1.1, there is an acknowledgment that the duty of attorneys to provide competent representation requires attorneys to “keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology...”¹⁰ There is a clear recognition of an ethical duty for attorneys to be technologically competent, as the ABA is of the view that the duty of competence requires attorneys to not only stay informed about the changes in the substantive law, but it also requires attorneys to maintain the knowledge and awareness about technological changes that could impact the legal profession.

While the ABA Model Rules do not bind our jurisdictions, it may be useful to examine the rules of other jurisdictions to see whether a similar duty exists. In the United Kingdom, the Solicitors Regulatory Authority¹¹ recognize the requirement for solicitors to provide competent representation under the Code of Conduct, but the rule does not extend specifically to requiring that solicitors be technologically competent. Similarly, under the Bar Council of India Rules Chapter II-Standards of Professional Conduct and Etiquette, there is no analogous duty of competence, but a duty for an advocate fearlessly to uphold the interests of his client.

In Jamaica, under Canons of Professional Ethics which governs the conduct of attorneys, Canon IV provides that an attorney shall “act in the best interest of his client and represent him honestly, competently and zealously within the bounds of the law. He shall preserve the confidence of his client and avoid conflicts of interest.” While there is no specific duty of technological competence, Canon VIII (b) can be considered to address this scenario and provide guidance. It provides: “Where in any particular matter explicit ethical guidance does not exist, an Attorney shall determine his conduct by acting in a manner that promotes public confidence in the integrity and efficiency of the legal system and the legal profession.”

This writer is of the view that, in adopting Canon VIII(b)’s guidance, an attorney has a duty to keep abreast of advances and changes in technology, as the efficiency of the legal system and profession requires such a mandate. The pandemic has certainly demonstrated that attorneys can no longer “bury their heads in the sand” and need to be aware of the benefits and challenges of disruptive technologies, such as AI.

III. BENEFITS OF AI IMPLEMENTATION

Efficiency

AI can automate many routine tasks, such as document review and legal research, saving time and improving efficiency in the legal profession. For example, AI can assist in contract drafting and other documentation.¹² *Luminance* is a legaltech service which offers this service. Recently, Allen & Overy announced that they have partnered with *Harvey*, an innovative AI platform that uses the same model as ChatGPT, but has been enhanced for legal work. Harvey operates in “multiple languages” and can automate legal work with “unmatched efficiency, quality and intelligence.” According to a press release from Allen & Overy, “Whilst the output needs careful review by an A&O [Allen & Overy] lawyer, Harvey can help generate insights,

¹⁰ Comment 8 to Rule 1.1, American Bar Association Model Rules <https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_1_1_competence/comment_on_rule_1_1/> accessed 16 February 2023

¹¹ Rule 3.3, SRA Code of Conduct for Solicitors, RELs and RFLs <<https://www.sra.org.uk/solicitors/standards-regulations/code-conduct-solicitors/>> accessed 16 February 2023

¹² ChatGPT. “What are the benefits and challenges of using AI in the legal profession?” (2023, February 16). Retrieved from <https://github.com/chatGPT/chatGPT>

recommendations and predictions based on large volumes of data, enabling lawyers to deliver faster, smarter and more cost-effective solutions to their clients.”¹³

From the perspective of the judiciary, there is the potential for automated filings and automated decision making. In Estonia, for example, the automation of small contract disputes is being actively pursued in order to assist in clearing backlogs of cases, a common problem for most judicial systems. This, in turn, ought to reduce turn-around timelines for litigious matters to be adjudicated, and increase access to justice.

Improved accuracy

AI can help reduce errors in legal analysis and decision-making, resulting in more accurate and consistent outcomes,¹⁴ to a certain extent. The AI system would have access to a wider range of case law precedent on which to make certain decisions, and be able to rapidly identify trends and patterns and apply it to the factual situation in the case before it. In this manner, AI, should be able to make a more likely prediction of the outcome of a case, given the access.

Data-driven decision making

Similarly, AI can analyze large amounts of data and identify patterns and trends that may not be apparent to human lawyers, providing more objective and data-driven decision-making.¹⁵ There has been speculation that AI has the potential to remove judges from an adjudicative function altogether, with the advent of AI judges which automate the judicial function.¹⁶ An increasing use of predictive coding can be used to adjudicate on certain matters, and can be used to run evaluative, advisory and determinative processes.

Cost savings

By automating routine tasks, AI can help reduce costs in the legal profession, making legal services more accessible to individuals and small businesses who may not have had the resources to pursue legal action in the past.¹⁷ Integrating AI into routine tasks may assist in reducing legal time spent on matters, and therefore reduce the legal fees chargeable on matters. This likely may lead to a reconceptualization of how to measure the value of legal work, and as Susskind posits, a shift from legal services as an advisory service with time-based billing, to an information service with commodity pricing.¹⁸

IV. RISKS AND CHALLENGES OF AI IMPLEMENTATION

The benefits of AI integration can certainly lead to certain efficiencies in delivery of legal services and justice. However, as with any new disruptive technology, there are certain risks of which we ought to be aware in the adoption of AI.

Notably, there are certain ethical challenges and substantive legal issues, including copyright and liability issues, which need to be considered.

¹³ <<https://abovethelaw.com/2023/02/hello-harvey-this-elite-biglaw-firm-is-the-first-to-partner-with-game-changing-ai-chatbot/>> accessed 19 February 2023

¹⁴ ChatGPT. "What are the benefits and challenges of using AI in the legal profession?" (2023, February 16). Retrieved from <https://github.com/chatGPT/chatGPT>

¹⁵ Ibid

¹⁶ Ibid

¹⁷ Ibid

¹⁸ Richard Susskind, *Tomorrow's Lawyers*, (3rd Edn, Oxford University Press, 2023)

A. Ethical challenges

Data privacy risks

Recently, ChatGPT has brought data privacy issues to the fore within AI systems. It is underpinned by a large language model which requires massive amounts of data to function and improve.¹⁹ OpenAI, the company behind ChatGPT, provided the tool with 300 billion words which were systematically scraped from the internet, without consent from the data subjects.²⁰ The platform requires datasets to be provided and then trains itself to generate content.

This raises questions of data ownership and accountability within AI systems. Even if the data is publicly available, and therefore may not necessarily require the data subject's consent or other lawful basis for processing personal data, the issue of contextual integrity arises, which is a fundamental principle in the legal discussions of privacy.²¹ This refers to a situation where individuals' information is misused outside of the context in which it was originally produced.

Other cases of personal data misuse include the emergence of deepfakes which are media in which an existing image or video is replaced with someone's likeness, making it appear as if the media originally emanated from that person.

With the availability of vast amounts of personal data to AI systems, the enforcement of certain fundamental data protection principles, such as fair and lawful processing and purpose limitation becomes harder to navigate for the data subject. Scholars have observed that as the internal logic of machine learning algorithms is typically opaque, the absence of a right to explanation to automated decision-making, a common right within most data protection legislation, can weaken an individual's ability to challenge such decisions.²²

Bias

There have been increasing incidents of bias in AI systems. This occurs when there is algorithmic AI bias, where the algorithms are trained using biased data sets, or societal AI bias, where our assumptions and norms as a society cause us to have blind spots or certain expectations in our thinking, which translates into the AI systems themselves.²³ For example, PortraitAI art generator allows users to feed a selfie and the AI draws on understandings of Renaissance portraits to render you in the image of the masters of the period.²⁴ However, most of these paintings during this time in history are of primarily white Europeans, and therefore the depictions rendered tend to create less than optimal results for persons of colour. This is because of the datasets on which the AI system is trained contains primarily images of white Europeans. AI systems may be biased if they are trained on biased data or if they are not designed to account for biases that exist in the legal system. This could lead to discriminatory outcomes.

¹⁹ <<https://theconversation.com/chatgpt-is-a-data-privacy-nightmare-if-youve-ever-posted-online-you-ought-to-be-concerned-199283>> accessed on 2 March 2023

²⁰ Ibid

²¹ Ibid

²² Joshua Gacutan, 'A statutory right to explanation for decisions generated using artificial intelligence' (2020) 28 (3) Int J Law Info Tech 293

²³ <www.lexanalytics.com/blog/bias-in-machine-learning/> accessed 1 March 2023

²⁴ Ibid

Regulators, in particular, need to be mindful of the potential for discriminatory outcomes when considering AI-integrated technologies such as predictive policing algorithms, which have come under recent scrutiny. Location-based algorithms rely on connections between places, events and historical crime rates to predict where and when crimes are more likely to happen before the crimes occur, leading to possibly discriminatory outcomes where particular neighbourhoods or persons are targeted by police.²⁵ The underlying human rights issues of freedom from discrimination and the presumption of innocence may be compromised by the inherent biases these types of algorithms may perpetuate.

Nuances in judgment

It has been stated that AI systems can create more data-driven decision-making in judgments, by relying on a wide range of data from the internet to create a well-reasoned decision, in relation to both legal opinions and court judgments.

However, there are several occasions, especially within the context of the administration of justice, that a judgment is not based merely on extensive data-analysis, precedents and legal principles. Justice requires more than the slavish application of judicial precedent, divorced from the realities of the case. There continues to be a human-element in the decision-making of some judges, although not necessarily divorced from the legal context within which it is decided. Especially in matters where the tribunal may not necessarily be a judge, but rather a jury of the accused's peers, it is likely that, emotions and instinct may sway in favour of an outcome or the other. AI systems may not necessarily be able to replicate the nuanced reasoning and judgment of human lawyers or judges, particularly in complex legal cases.²⁶

Lack of transparency and accuracy

Some AI systems are "black boxes," meaning that it is not clear how they arrive at their decisions. This lack of transparency can make it difficult to assess the accuracy and fairness of AI-driven decisions.

In recent years, academics and practitioners alike have called for greater transparency into the inner workings of artificial intelligence models, and for many good reasons.²⁷ Transparency can help mitigate issues of fairness, discrimination, and trust — all of which have received increased attention.²⁸

However, greater transparency is not without its risks, as disclosures can be subject to hacks, releasing additional information may make AI more vulnerable to attacks, and disclosures can make companies more susceptible to lawsuits or regulatory action. This creates a sort of 'transparency paradox' which requires users of AI to think seriously about how they will manage the risks of AI from the perspective of transparency and obtaining accurate results.²⁹

B. Legal challenges

²⁵ <<https://www.technologyreview.com/2020/07/17/1005396/predictive-policing-algorithms-racist-dismantled-machine-learning-bias-criminal-justice/>> accessed 1 March 2023

²⁶ ChatGPT. "What are the benefits and challenges of using AI in the legal profession?" (2023, February 16). Retrieved from <https://github.com/chatGPT/chatGPT>

²⁷ <<https://hbr.org/2019/12/the-ai-transparency-paradox>> accessed 1 March 2023

²⁸ Ibid

²⁹ Ibid

The use of AI also raises certain substantive legal issues, with which attorneys and regulators must consider as the technology advances, including questions about copyright and the legal personality of AI systems.

Copyright challenges

While attorneys may be using AI within their legal practices or be advising clients regarding AI, copyright issues may arise. Specifically, attorneys need to consider whether copyright subsists in opinions or documentation which is drafted using AI technology, or likewise, whether copyright subsists with a client who uses generative AI to create a new work.

Recently, the growing popularity of ChatGPT has been a challenge for university administrators, who expressed concerns about recent cases of students using ChatGPT to plagiarize and passing off work as their own.

Given the rapid development of generative AI and its potential to create new works, the three central questions which arise are, whether the results being generated are:

- i) An outcome of the technology's own "intelligence" and therefore entitles the technology itself to be the holder of copyright;
- ii) A result of the user's instructions or commands, and therefore any copyright subsists with the user; or
- iii) An outcome of the developer's programming, and therefore any copyright subsists with the original developer of the AI-enabled programme.

By its nature, generative AI challenges pre-conceived notions of originality and authorship which are central to the entitlement of a person to copyright, that pre-dates the computer dates and asks if this lack of "authorship" should equate to lack of protection.³⁰

Copyright is the legal right granted to the author of an original work. For a grant of copyright, there are certain legal requirements need to be satisfied, generally: the work must emanate from the author, involving some sort of independent skill of the author and it must be original, and not substantially copy the work of another.³¹

It is important to also consider the economic incentive principle that justifies the creation of intellectual property rights. It is that an individual ought to receive recognition for the creation of an original work, and possibly be able to receive financial compensation, whether through royalties or otherwise, for the intellectual property.

Consequent to the developer's increased distance from the works being created, AI has challenged "authorship" and who should be considered the author of the works created, compared to traditional artistic works, where the author of a book, for example, holds the copyright.

In some jurisdictions, copyright legislation has evolved to acknowledge the UK reforms to copyright. The Copyright, Designs and Patents Act 1988 of the UK ("the CDPA") recognizes "computer-generated" works as being eligible for copyright protection. Section 178 of the CDPA defines "computer-generated" as "*in relation to a work, means that the work is generated by*

³⁰ Kanchana Kariyawasam, 'Artificial Intelligence and challenges for copyright law' (2020) 28 (4) Int J Law Info Tech 279

³¹ Ibid

computer in circumstances such that there is no human author of the work.”³² AI can be considered to be computer-generated work, by its very nature. Further, the CDPA goes further to state that in relation to the authorship of computer-generated work, “the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken”³³. This definition has been adopted by a handful of Commonwealth jurisdictions, like India³⁴ and Jamaica³⁵, and which reflects the test for film authorship already embedded within the copyright legislation. However, this definition is not present in the EU, US or Australia. Many EU countries, like France, only permit natural persons to hold copyright. Similarly, the Berne Convention, one of the most important international agreements governing copyright law, does not have this definition³⁶, but requires signatories thereto to offer an adequate level of copyright protection to nationals of other parties to the Convention.³⁷

The test proposed in the CDPA is inherently vague, and appears to be intentionally so, to accommodate the complex nature of authorship of AI and other computer-generated works. In 1986, the UK Government published a White Paper, Intellectual Property and Innovation, which argued that “[t]he responses to the 1981 Green Paper have shown, however, that circumstances vary so much in practice that a general solution would not be fair in all cases. It appears that no practical problems arise from the absence of a specific authorship in this area. The Government has therefore concluded that no specific provisions should be made to determine this question.”³⁸

Based on the position of the UK Government, it appears that the ‘necessary arrangements’ test was designed to be sufficiently flexible for authorship to be determined on a ‘case by case’ basis, acknowledging that with the innovations in AI and computer-generated works, there could be no ‘one-size fits all’ type of determination, as with other traditional forms of artistic works. Depending on the nature of the content generated and level of input of the user, it could be the developer or the user of the AI or computer-generated work who is deemed to be the author.

There is a dearth of case law considering the ‘necessary arrangements’ test. The test reasonably contemplates that either:

1. A programmer/developer would have contemplated a number of possible outcomes and designed the AI system to produce particular computer-generated work; or
2. Alternatively, a user may have envisioned output, given necessary instructions, made necessary input and undertaken labour and produced something that the programmer may not have contemplated.³⁹

It is submitted that the necessary arrangements test ought to be interpreted as the proximity of the developer or user to the output which ought to determine the authorship. However, the

³² Copyright, Designs and Patents Act, (UK) s. 178

³³ Ibid, s. 9

³⁴ The Copyright Act, (India), s. 2

³⁵ The Copyright Act, (Jamaica), s. 2

³⁶ Article 10 of the Agreement for Trade Related Aspects of Intellectual Property Rights (“TRIPS”) however, requires computer programs to be protected as literary works.

³⁷ Article 5 of the Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979)

³⁸ Intellectual Property and Innovation (Cmnd 9712; HMSO, Ch 9, paras 9.6-8) as quoted by Ryan Abbott ‘Artificial intelligence, Big data and Intellectual Property: Protecting Computer-Generated Works in the United Kingdom’ (2017) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3064213> accessed 3 March 2023

³⁹ Ibid

more developed and complex a generative AI system becomes, it may become less straightforward to determine the person that made the necessary arrangements.

Legal personality of AI systems

Increasingly, there are some academics who argue for the recognition of legal personality of AI systems. Abbott makes an interesting argument that the current definition of computer-generated works within certain Commonwealth jurisdictions “*fails to take into account the fact that computers independently should qualify for authorship and inventorship, even when contributing to jointly authored works with natural persons.*”⁴⁰

He proposes that computers may be considered to be joint authors of intermediate works, and proposes the definition of ‘*computer-generated work*’ be amended to mean work “*generated by a computer in circumstances such that the computer, if a natural person, would meet authorship requirements.*”⁴¹ He proposes that a collaborative approach be taken between natural persons and computers; and that computers and AI systems be recognized as legal persons capable of holding copyright. Abbott’s proposal for the recognition of AI systems as legal persons is not as radical as it appears, as in 2017, Saudi Arabia conferred citizenship on a humanoid robot, Sophia. Proponents argue that if AI systems are not granted copyright protection, then no one will have rights to the work and it will fall into public domain, disincentivizing creators.⁴²

Furthermore, the proposal is contextualized with the broader discussion regarding liability for other AI-enabled matters, such as autonomous-driving vehicles, and whether the system itself should be held liable for any potential fatal accidents or the developer.

ChatGPT appears to have reconciled the legal conundrum within their Terms and Conditions, which may not necessarily be a comfort to university educators. The presumption, based on the Terms and Conditions is that OpenAI, the developer, is the original author, and to provide legal clarity, any copyright in the output is assigned to the user of ChatGPT:

“3. Content

*(a) Your Content. You may provide input to the Services (“Input”), and receive output generated and returned by the Services based on the Input (“Output”). Input and Output are collectively “Content.” As between the parties and to the extent permitted by applicable law, you own all Input, and subject to your compliance with these Terms, OpenAI hereby assigns to you all its right, title and interest in and to Output. OpenAI may use Content as necessary to provide and maintain the Services, comply with applicable law, and enforce our policies. You are responsible for Content, including for ensuring that it does not violate any applicable law or these Terms.”*⁴³

Certainly regulators, attorneys and judges may need to consider how they will treat copyright authorship as more advances are made in AI systems. While this writer does not believe it may be the time for legal personality of AI systems, there certainly needs to be some clarity provided with the “necessary arrangements” test, with a view to providing developers and users with greater guidance on how to approach the development of their content.

⁴⁰ Ryan Abbott ‘Artificial intelligence, Big data and Intellectual Property: Protecting Computer-Generated Works in the United Kingdom’ (2017) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3064213> accessed 3 March 2023

⁴¹ Ibid

⁴² Kanchana Kariyawasam, ‘Artificial Intelligence and challenges for copyright law’ (2020) 28 (4) Int J Law Info Tech 279

⁴³ <<https://openai.com/policies/terms-of-use>> accessed 3 March 2023

V. RECOMMENDATIONS FOR A FUTURE WITH AI

Given the above risks and challenges with AI systems, the following recommendations are made in respect of attorneys and judges, and thereafter, for regulators.

A. Recommendations for attorneys and judges

Stay in the know.

It is imperative that attorneys and judges keep abreast of developments in technology and the potential impact it may have. As this writer explored previously in Section II, attorneys and judges ought to be technologically competent, and be aware of the risks and benefits of emerging technologies. As law must evolve to meet the demands of an ever-changing society, so too must the legal profession and judiciary “*stay in the know*”. Susskind’s warnings remind us that the practice of law and delivery of justice must be fit for purpose, and address the demands of an information society, which may require legal services and delivery of justice to integrate technology, such as AI and adapt in order to survive.

Keeping abreast of changes also requires legal practitioners to ensure that they are kept aware of any new risks which may arise in any AI which they adopt in their practice.

Conduct data protection impact assessments.

As required under Article 35 of the General Data Protection Regulation, a data protection impact assessment (“DPIA”) should be used before the deployment of innovative technological solutions and for automated decision-making or profiling. The use of AI for processing personal data by attorneys and judges will therefore usually meet the legal requirement for completing a DPIA.

The DPIA should be done at the earliest stages of development, and prior to implementation, and should examine the data flows and stages when AI processes and automated decisions may produce effects on individuals.⁴⁴ Integral to the conduct of any DPIA is the assessment of the AI system’s necessity and proportionality in relation to the fulfilment of the purpose. It may be discerned from this assessment that the risk or detriment to data subjects from the possibility of bias or an inaccuracy may be greater than the benefits of such implementation.⁴⁵

Especially when it relates to automated decision-making, users of AI systems ought to be mindful of the additional rights which data subjects retain in explaining the logic behind decision-making, which is present in most data protection laws. The more complex the AI system appears to be, it may create greater operational challenges in recognizing this right of data subjects.

Review terms and conditions of any new service

As discussed above, the terms and conditions of ChatGPT provides useful guidance regarding the assignment of copyright to the user, in cases where there is no international consensus on the status of copyright subsistence in computer-generated work produced by AI.

⁴⁴<<https://ico.org.uk/about-the-ico/media-centre/ai-blog-data-protection-impact-assessments-and-ai/>> accessed on 1 March 2023

⁴⁵ Ibid

While it is commendable that the developers of ChatGPT have recognized legal challenges which have arisen on the platform and it is consistently re-configuring to refine any challenges, it is evident that the terms and conditions of any technical solution an attorney is seeking to use in his/her practice is an important starting point in determining the scope of any liability when using the platform, any indemnification for loss and importantly, whether copyright subsists in the works created by the AI.

B. Recommendations for regulators

Regulatory approach

Generally, when regulators are approaching emerging technologies, like AI, they tend to face a number of challenges, ranging from:

- Failing to take sensible precautionary measures relative to the risks presented by emerging technologies;⁴⁶ or
- The regulatory intervention is ineffective and not fully fit for purpose, leading to a series of unintended consequences.⁴⁷

Regulators ought to approach regulating AI using a multidisciplinary approach, acknowledging that legal, policy, technical and cyber-security experts are integral to creating a workable solution to regulating any new technology.

There are three criteria which ought to be considered by regulators in approaching any emerging technology, such as AI systems.

a. Regulatory prudence and precaution

In many cases, the emergence of a new technology creates uncertainty, and may precipitate suspicion and mistrust regarding the risks. While it is certainly practical to exercise a level of restraint and skepticism, a “knee-jerk” reaction by imposing a blanket prohibition on the emerging technology or moratorium to regulating it⁴⁸ may stifle innovation and advances within the digital economy. It is important that regulators exercise prudence and precaution by doing a harm-benefit analysis on the new technology, in particular, examining whether more weight ought to be given to the probability of harm occurring or the seriousness of the harm. As Brownsword and Goodwin state: “...it is one thing for regulators to carry out a harm benefit calculation and make their best prudential judgment and quite another for regulators to mechanically to apply a precautionary prohibition.”⁴⁹

For example, given the data privacy risks raised above with bias, it may seem precautionary for an outright ban to be placed on AI integration in predictive policing, however, there might be a way in which data minimization techniques can be embedded within the system to address the concerns. Regulatory precaution ought to consider both risks and benefits of emerging technologies, being mindful of the need for innovation to occur.

⁴⁶ Roger Brownsword and Morag Goodwin, *Law and the Technologies of the Twenty-First Century*, (1st Edn, Cambridge University Press, 2012)

⁴⁷ Ibid

⁴⁸ Ibid

⁴⁹ Ibid

b. Regulatory legitimacy

Regulatory legitimacy in this sense seeks to examine whether the regulators have operated in a transparent and accountable manner which invites public participation; whether the regulators have the requisite authorisation to regulate that specific matter; and whether the regulatory instrument is relevant and appropriate to the matter it seeks to regulate.⁵⁰

Importantly, engagement with the regulatees is important in legitimizing the regulatory intervention that is sought. Public consultation may enrich the dialogue regarding the emerging technology and cause regulators to consider other factors which may not necessarily be considered before.

Regulatory legitimacy may also involve an investigation on which authority is most appropriate to regulate the new technology. This was the case when cryptocurrencies emerged, and the question of whether this digital asset could be categorized as a security pursuant to the *Howey test*⁵¹ in the United States or a commodity would determine whether the Securities and Exchange Commission or the Commodity Futures Trading Commission would regulate it. It has now been settled by the federal courts that digital assets fall within the jurisdiction of the Commodity Futures Trading Commission as a commodity under US law.⁵² However, this ongoing discussion shows that the regulatory intervention may have been viewed as illegitimate by the regulatees if the emerging technology was misclassified and unintended consequences may have occurred.

Finally, if the instrument of regulation is deemed to be inappropriate, it may be viewed as illegitimate. There may be scenarios where the regulatees deem the type of regulatory intervention to not be commensurate with the risks. The regulators will need to consider whether, based on their harm-benefit analysis, the emerging technology is best suited to be backed by legal sanctions, or whether a guidance document is more appropriate. There are instances of regulators engaging in regulatory sandboxes to allow new innovations to grow and develop while being supervised by the regulator, subject to the relevant approvals and examinations of the new technology occurring. It is also important that regulators adopt a technology-neutral stance if regulating by legal sanction, as the law may need to be sufficiently flexible ("light-touch") and not overly prescriptive to permit new advances in technology to be accommodated, without the need to pass new laws to regulate advances in one technology.

c. Regulatory effectiveness

Regulatory effectiveness refers to the regulatory intervention having the intended effect so as to be fit for purpose. The regulators need to provide the regulatees with

⁵⁰ Ibid

⁵¹ The *Howey Test* refers to the U.S. Supreme Court case for determining whether a transaction qualifies as an "investment contract," and therefore would be considered a security and subject to disclosure and registration requirements under the Securities Act of 1933 and the Securities Exchange Act of 1934. Under the *Howey Test*, an investment contract exists if there is an "investment of money in a common enterprise with a reasonable expectation of profits to be derived from the efforts of others." *SEC v. WJ Howey Co.* 328 US 293 (1946)

⁵² In 2018, federal courts affirm the Commodity Futures Trading Commission's jurisdiction over digital assets in two cases, *CFTC v. McDonnell*, 287 F. Supp. 3d 213 (E.D.N.Y. 2018) and *CFTC v. My Big Coin Pay, Inc. et al.*, 334 F. Supp. 3d 492 (D. Mass. 2018).

clear guidance so that they know what is required for compliance, and how to comply with the guidance.⁵³ It is critical for regulatory effectiveness that the regulatees respond in the desired way. Rules ought not to be overly complex, they ought to be clearly published and articulated and not constantly subject to revision.⁵⁴ The evidence of the effectiveness of any regulatory intervention is whether the anticipated consequences of the regulation are achieved.

For example, a regulation which is aimed at encouraging banks and non-banks to participate in mobile banking, but fails to provide adequate guidance to non-banks on how to comply with regulations which are skewed in favour of banks may have the unintended consequence of discouraging competition and innovation in the mobile banking space, despite the regulation stating its intention to be inclusive.

International coordination in regulation

Regulators ought to adopt an international consensus on how to regulate these emerging technologies such as AI. The challenges faced by regulators are not jurisdiction-specific, but rather may be common to various jurisdictions.

The OECD has recently adopted responsible AI principles Recommendation on Artificial Intelligence (AI) , which is the first intergovernmental standard on AI on 22 May 2019.⁵⁵

In particular, the Recommendation identifies five complementary values-based principles for the responsible stewardship of trustworthy AI and calls on AI actors to promote and implement them:

- *Inclusive growth, sustainable development and well-being*: this principle highlights the potential for trustworthy AI to contribute to overall growth for all;
- *Human-centred values and fairness*: AI systems should be designed in a way that respects the rule of law, human rights, democratic values and diversity and should include appropriate safeguards to ensure a fair and just society;
- *Transparency and explainability*: This principle is about transparency and responsible disclosure around AI systems to ensure that people understand when they are engaging with them and can challenge outcomes.
- *Robustness, security and safety*: AI systems must function in a robust, secure and safe way throughout their lifetimes and potential risks should be continually assessed and managed; and
- *Accountability*: organisations and individuals developing, deploying or operating AI systems should be held accountable for their proper functioning in line with the OECD's values-based principles for AI.⁵⁶

Consistent with these value-based principles, the Recommendation also provides five recommendations to policy-makers pertaining to national policies and international co-operation for trustworthy AI, namely:

- investing in AI research and development;

⁵³ Ibid

⁵⁴ Ibid

⁵⁵ <<https://oecd.ai/en/ai-principles>> accessed 2 March 2023

⁵⁶ Ibid

- fostering a digital ecosystem for AI;
- shaping an enabling policy environment for AI;
- building human capacity and preparing for labour market transformation;
- and international co-operation for trustworthy AI.⁵⁷

By adopting these recommendations, regulators can approach the regulation of AI in a coordinated manner, and be mindful of the risks and benefits of AI-enabled technologies.

Recently, the EU has proposed a draft Act on Artificial Intelligence in 2021⁵⁸, the first far-reaching regulation within the domain of AI, and aimed at supporting the digital single market in the EU. It proposes to regulate the providers or users of AI, proposes risk categorization of AI systems⁵⁹, and has extra-territorial scope on providers⁶⁰, which is not unusual for regulations emanating from the EU.

However, the draft AI Act is not without its criticisms, as some scholars have observed certain deficiencies such as the failure to consider the liability of AI systems itself and whether legal personhood can be conferred thereon, which has been previously considered above. There is also a requirement that training and testing datasets for AI systems required under Article 10 (3) must be “free of errors”, which experts state may be utopian, at best as an error-free data set is not a guaranteed outcome.⁶¹

Nevertheless, the attempt to regulate AI, despite its deficiencies, signals a step in the right direction, and with proper public consultation and regulatory prudence and precaution, it is hoped that the regulators in the EU will cure some of the challenges and aim to promote innovation within a safe environment.

VI. CONCLUSION

The advances in big data and AI systems are happening each day and it requires regulators, attorneys and judges to critically examine how it will affect their practices, the delivery of justice and the economy.

It remains to be seen whether the challenges raised herein will be addressed immediately, but understanding the challenges and international coordination in the response is critical to managing the risks.

⁵⁷ Ibid

⁵⁸ Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts

⁵⁹ Ibid Art 6

⁶⁰ Ibid Recital 10, Art 2

⁶¹ Vera Lucia Raposo, ‘Ex machina: preliminary critical assessment of the European Draft Act on artificial intelligence’ (2022) 30 (1) Int J Law Info Tech 88