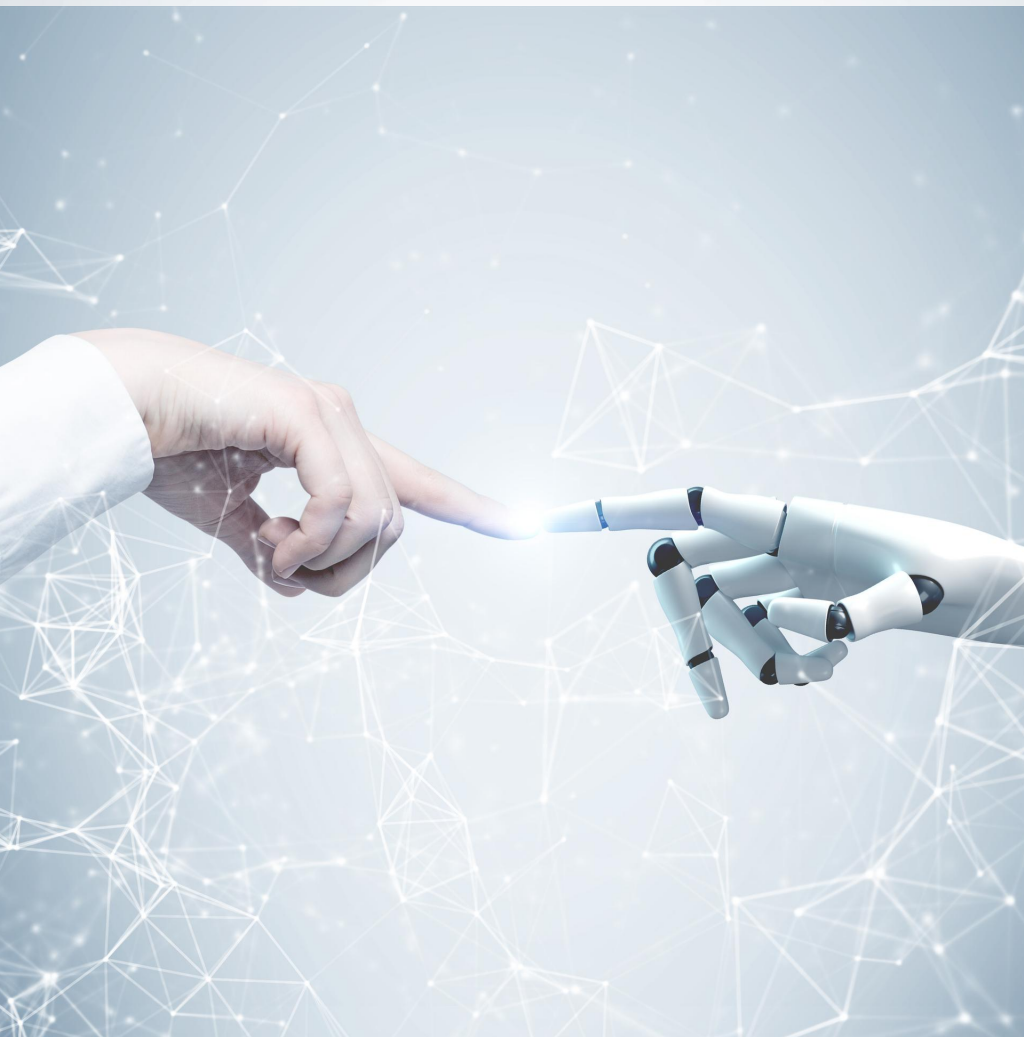


LRD COLLOQUIUM 2020 RESEARCH PAPER SERIES



LEGAL RESEARCH AND DEVELOPMENT DEPARTMENT

THE LAW SOCIETY OF SINGAPORE

About the Colloquium

The Colloquium on 'The Role of Lawyers in the Age of Disruption: Emerging Regulatory Challenges' was held as a live webinar on 19 May 2020, amidst Singapore's circuit-breaker period, and attended by over 320 members of The Law Society of Singapore. It aimed to be a platform for legal practitioners, emerging scholars, industry experts and students to contribute to developing thought leadership in topics relating to the ethical and regulatory challenges arising from technology's impact on the legal profession.

The Colloquium sought to examine two important questions. First, how should we re-examine the role of lawyers in an age of disruption, especially with increasing automation, competition and liberalisation? Second, given that professional regulation sets the parameters of lawyers' business models, practice structures and professional values, how should lawyers, law practices and potential new entrants to the legal market be regulated or re-regulated in the future of legal work?

These issues were discussed over the course of four panel sessions focusing on the following themes:

- Panel 1: **The Role of Lawyers in the Age of Disruption**
- Panel 2: **Legal Ethics & Technology**
- Panel 3: **Alternative Legal Service Providers - To Regulate or Not to Regulate?**
- Panel 4: **Law Practices and the Future of Work**

To explore these questions, 13 research papers were presented across the four panel sessions, helmed by expert moderators and commentators.

For a snapshot of the highlights of the Colloquium, please visit the [LRD Research Portal](#) for our post-event feature article [here](#).

Disclaimer

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Panel 2 Legal Ethics & Technology

The Evolution of Legal Ethics with the Advent of Legal Technology

Jennifer Lim Wei Zhen & Lee Ji En

THE EVOLUTION OF LEGAL ETHICS WITH THE ADVENT OF LEGAL TECHNOLOGY

Jennifer Lim Wei Zhen* & Lee Ji En**

The advent of new technologies has presented (i) legal technological tools which assist lawyers in dispensing legal services (e.g. Artificial Intelligence ('AI')-powered eDiscovery, contract review and legal research tools); and (ii) technologies which shaped the type of legal services lawyers offer or adopt (e.g. smart contracts, online and decentralised dispute resolution).

This paper explores the scope and extent of ethical duties that should be imposed on practitioners in terms of (i) the duty to advise clients on new technologies that would facilitate the best running of their cases; (ii) the duty to advise clients on considering the existence of these new legal services and adopting them in their work products; and (iii) the duty to ensure that the tools used comply with the necessary ethical and professional standards.

I. INTRODUCTION

This paper first examines the different types of technology and its impact on the delivery of legal services. It then proposes that the duty under Rule 5 of the Legal Profession (Professional Conduct) Rules ('PCR') requires lawyers to advise their clients on the technologies which can be used to save costs and to increase the quality of work. For transactional lawyers, this could include advising clients on the options of utilising smart contracts or due diligence tools with machine learning capabilities. For dispute resolution lawyers, this could include advising clients on considering online dispute resolution, technology assisted review tools or legal analytics tools which are able to predict the likely outcome of a matter.

In discharging this duty, legal practitioners would also be duty-bound to ensure that such legal technology tools comply with the necessary ethical and professional standards. First, in light of the rise in cybersecurity threats, lawyers would need to ensure that the adoption of technology would not result in a breach of their duty of confidentiality. Second, lawyers also have a duty to supervise their staff who are

unauthorised to practise law in their use of these legal tech tools in the delivery of legal services. Third, when legal AI tools are involved, lawyers would need to understand the ethical risks posed by these tools and ensure that the tools used are 'ethical-by-design'.

II. TECHNOLOGY AND ITS IMPACT ON LEGAL SERVICES

Technology is transforming the delivery of legal services in the following manners:¹

- (i) Commoditisation of legal services
- (ii) Automation
- (iii) Digitisation
- (iv) Virtualisation
- (v) Analytics
- (vi) Creation of new legal products

A. *Commoditisation of legal services*

Commoditisation describes a process where certain legal services move from being a bespoke service to be a standardised service.² These standardised legal services are then computerised and turned into systems, such as generating a

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¹ These descriptions are meant to assist the readers in getting a basic understanding on the impact of technology in the delivery of legal services. The definitions of some of these terms are non-exhaustive and certainly not universal.

² Richard Susskind, *Tomorrow's Lawyers* (2nd edn, OUP 2017, Kindle Edition) ch 3. Note: In his book, Susskind describes an entire evolution, which ends up with legal work being completely commoditised in a manner that it is 'commonplace and routinisable that it can be made available, in open-source spirit, on the Web'. In this paper, we will focus on the first two stages of the process, i.e. standardisation and systemisation, which are just starting to happen in the legal industry.

contract by filling up a Google Form. Examples that we see in this area include Zegal³ and OCBC's Online Will Generator.⁴

B. Automation

Automation describes a process where technology is used to carry out certain tasks in the provision of legal services. Without technology, these tasks would either have to be done by a lawyer or another human being. Automation typically occurs in areas where the work is high in volume, but low in value and time-consuming, such as AI-powered document assembly and document review tools. Examples that we see in this area include Hotdocs,⁵ HighQ⁶ and Luminance.⁷

C. Digitisation

Digitisation is the process (enhanced by technology) of reimagining the delivery of goods and services and creating new business models and structures from which to manage them.⁸

D. Virtualisation

'Virtualisation' refers to 'virtualisation as the art and science of making the function of an object or resource simulated or emulated in software identical to that of the corresponding physically realised object'.⁹

³ Zegal 'Create. Collaborate. E-sign!' (*Zegal*) <<https://zegal.com/en-gb/>> accessed 12 June 2020.

⁴ See OCBC Bank, 'OCBC Online Will Generator' (*OCBC*, 2004-2017) <www.ocbc.com/personal-banking/lifegoals/willgenerator/#/> accessed 12 June 2020.

⁵ Hotdocs 'Reduce Compliance Risk and Save Time with Document Automation' (*AbacusNext International Ltd.*, 2020) <www.hotdocs.com/> accessed 12 June 2020.

⁶ HighQ 'Discover an intelligent legal work platform' (*Legal.ThomsonReuters*) <<https://legal.thomsonreuters.com/en/products/highq>> accessed 12 June 2020.

⁷ Luminance 'The Artificial Intelligence Platform for the Legal Profession' (*Luminance Technologies*, 2020) <www.luminance.com/> accessed 12 June 2020.

⁸ Mark A Cohen, 'Legal Delivery Is Becoming Digitized. What Does That Mean?' (*Forbes*, 21 May 2017) <www.forbes.com/sites/markcohen1/2017/05/21/legal-delivery-is-becoming-digitized-what-does-that-mean/#5cd97e764e62> accessed 16 April 2020.

⁹ Craig Mathias, 'What Is Virtualization? Far More Than Just Virtual Machines' (*Network World*, 26 October 2017) <www.networkworld.com/article/3234795/what-is-virtualization-definition-virtual-machine-hypervisor.html> accessed 16 April 2020.

The recent COVID-19 situation has foisted virtualisation upon the legal industry, beginning with the implementation of virtual hearings overnight, as well as the move to allow commissioning via videoconferencing.

In the context of legal services,¹⁰ virtualisation has manifested in the changing of the medium of traditional legal services, from physical mediums to virtual mediums. Examples include the move to virtual hearings, online dispute resolution, the use of virtual video-commissioning and the use of digital signatures to close contracts.

E. Legal analytics

Legal analytics is about using technology to harness insights which can be used in the practice of law. The legal industry generates a huge amount of data every year, ranging from case law, submissions, memos to more administrative types of data, such as hours billed for various types of work and pricing data. The idea of analytics is to use technologies (e.g. machine learning) to process these data and turn them into actionable insights. For instance, some companies are working on analytics which can help predict outcomes of cases from legal precedents, while some are using it to improve legal research and create better search engines or to estimate the fees for a piece of work. Examples that we see in this area include Lex Machina (acquired by LexisNexis),¹¹ Intellex¹² and ROSS Intelligence.¹³

F. Creation of new legal products and modus operandi

The advent of new technology has also brought about the creation of new types of legal products, such as smart contracts, and the transformation of traditional legal services in the virtual platform, such as online dispute resolution platforms,

¹⁰ Desmond Brady, 'The High-Tech Courtroom Of The Future | Answers On' (*Thomson Reuters*, 27 June 2016) <<https://blogs.thomsonreuters.com/answeron/virtualization-standardization-technology-future-courts/>> accessed 16 April 2020.

¹¹ Lex Machina 'Predict the behavior of courts, judges, lawyers and parties with Legal Analytics' (*Lex Machina A LexisNexis Company*) <<https://lexmachina.com/>> accessed 12 June 2020.

¹² INTELLEX 'Maximise your collective knowledge, intelligently' (*INTELLEX*) <<https://intelllex.com/>> accessed 12 June 2020.

¹³ ROSS 'The intelligent legal research choice' (*ROSS*) <<https://www.rossintelligence.com/>> accessed 12 June 2020.

including e-commerce platforms like Modria,¹⁴ and decentralised dispute resolution options like Kleros.¹⁵

III. DUTY TO ADVISE CLIENT ON THE USE OF LEGAL TECH TOOLS

This paper explores the scope and extent of ethical duties that should be imposed on practitioners in terms of: (i) the duty to advise clients on new technologies that would facilitate the best running of their cases; and (ii) the duty to advise clients on considering the existence of these new legal services and adopting them in their work products.

The relevant rule governing the above duties would be seated in Rule 5 of the PCR on diligence and competence. This paper unpacks the scope and standard of duty that might be imposed on practitioners in order to comply with the spirit of Rule 5 of the PCR.

The relevant provisions of Rule 5 are reproduced below for ease of reference:

Honesty, competence and diligence

5. — (1) *The following principles guide the interpretation of this rule.*

...

(b) A legal practitioner must have the requisite knowledge, skill and experience to provide competent advice and representation to his or her client.

(c) A legal practitioner has a duty to be diligent in the advice and information given to his or her client, and in the manner the legal practitioner represents the client.

(2) *A legal practitioner must —*

(a) be honest in all the legal practitioner's dealings with his or her client;

¹⁴ Modria 'Increase access to justice with online dispute resolution' (Tyler Technologies) <<https://www.tylertech.com/products/Modria>> accessed 12 June 2020.

¹⁵ Clément Lesaege, Federico Ast and William George, 'Kleros Short Paper' (Kleros.io, September 2019) <https://kleros.io/whitepaper_en.pdf> accessed 16 April 2020.

The Evolution of Legal Ethics

(b) when advising the client, inform the client of all information known to the legal practitioner that may reasonably affect the interests of the client in the matter, other than —

(i) any information that the legal practitioner is precluded, by any overriding duty of confidentiality, from disclosing to the client; and

(ii) any information that the client has agreed in writing need not be disclosed to the client;

(c) act with reasonable diligence and competence in the provision of services to the client;

(d) ensure that the legal practitioner has the relevant knowledge, skills and attributes required for each matter undertaken on behalf of the client, and apply the knowledge, skills and attributes in a manner appropriate to that matter;

(e) keep the client reasonably informed of the progress of the client's matter;

(f) where practicable, promptly respond to the client's communications;

(g) keep appointments with the client;

(h) provide timely advice to the client;

(i) follow all lawful, proper and reasonable instructions that the client is competent to give;

(j) use all legal means to advance the client's interests, to the extent that the legal practitioner may reasonably be expected to do so; and

(k) keep proper contemporaneous records of all instructions received from, and all advice rendered to, the client.

Specifically, the key provisions of PCR Rule 5 which are engaged in this regard can be broken down into 4 types of duties, as follows:

- (i) **Knowledge:** It is submitted that it can be seen as a part of the lawyer's duty to have the requisite knowledge with regard to the types of legal technology available, the options which can be used to optimise legal services (e.g. the use of technology for document review), or the options available for clients (e.g. the use of smart contracts).

- (a) **PCR Rule 5(1)(b):** A legal practitioner must have the requisite knowledge, skill and experience to provide competent advice and representation to his or her client.
 - (b) **PCR Rule 5(2)(d):** A legal practitioner must ensure that the legal practitioner has the relevant knowledge, skills and attributes required for each matter undertaken on behalf of the client, and apply the knowledge, skills and attributes in a manner appropriate to that matter.
- (ii) **Duty to Inform:** Beyond possessing knowledge, legal practitioners should also inform their clients of the relevant technological options available at their disposal and check if clients wish for them to undertake the use of certain legal technologies. This would include the cost of the technologies and their capabilities. The duty to inform clients of the option of using legal tech tools can be analogised to the duty of lawyers to advise clients of alternative dispute resolution ('ADR') options and cost considerations, even if clients choose not to proceed with such ADR options in the end.¹⁶
 - (a) **PCR Rule 5(1)(c):** A legal practitioner has a duty to be diligent in the advice and information given to his or her client, and in the manner the legal practitioner represents the client.
 - (b) **PCR Rule 5(2)(b):** A legal practitioner must, when advising the client, inform the client of all information known to the legal practitioner that may reasonably affect the interests of the client in the matter, other than —

¹⁶ Dorcas Quek Anderson, 'Supreme Court Practice Directions (Amendment No. 1 of 2016): A Significant Step in Further Incorporating ADR into the Civil Justice Process' (*Law Gazette*) <<https://v1.lawgazette.com.sg/2016-03/1524.htm>> accessed 11 May 2020.

The Evolution of Legal Ethics

1. *any information that the legal practitioner is precluded, by any overriding duty of confidentiality, from disclosing to the client; and*
 2. *any information that the client has agreed in writing need not be disclosed to the client.*
- (iii) **Competence:** PCR Rule 5 also requires legal practitioners to act in reasonable diligence and competence in the provision of services to the client, including in the use of technology where appropriate to do so. Examples include the use of technology for contract review and due diligence for transactional lawyers.
- (a) **PCR Rule 5(2)(c):** *A legal practitioner must act with reasonable diligence and competence in the provision of services to the client.*
- (iv) **Best Efforts:** The duty to use all means to advance their client's interests would also mean that legal practitioners should recommend and advise clients on the technological options available if it would be in their client's best interests to do so.
- (a) **PCR Rule 5(2)(j):** *A legal practitioner must use all legal means to advance the client's interests, to the extent that the legal practitioner may reasonably be expected to do so.*

The consequences of a failure to advise clients on the adoption of technology could play out in the costs to be awarded in taxation claims. This is consistent with cost considerations when parties do not move forward with ADR options. This position on costs is one that has been adopted overseas as well.

For instance, in the Canadian Case of *Cass v. 1410088 Ontario Inc.*,¹⁷ the Court had opined that counsel should have saved costs, potentially through the use of legal technology. Specifically, the Court had stated that:¹⁸

“[I]f artificial intelligence sources were employed, no doubt counsel’s preparation time would have been significantly reduced ...

The time proposed for preparation for the summary judgment motion straddles the date of the Rule 49 offer. Mr. Lipetz is claiming some 80 hours. This does present as excessive; some 20 to 30 hours would have been more acceptable.

...

\$900.00 for legal research is problematic. One assumes that counsel graduated with the basic legal knowledge we all possess. This matter was unlikely his first blush with the world of “occupier’s liability”, and specifically the liability of landlords. Counsel no doubt was familiar with the focus on the degree or control and access exercised by the landlord on the subject area. So, given all the base experience and knowledge, the need for “research” by some anonymous identity is questionable.

All in all, whatever this ‘research’ was would be well within the preparation for the motion. There was no need for outsider or third-party research. If artificial intelligence sources were employed, no doubt counsel’s preparation time would have been significantly reduced.” [emphasis added]

The court also highlighted the need for counsel to be more efficient (possibly through the use of precedents and technology) and this had an impact on the costs recoverable, even if a party is successful: “In this day and age of boiler plate pleadings and the instant availability of drafting precedent, *the hours expended*

¹⁷ [2018] ONSC 6959.

¹⁸ [2018] ONSC 6959, [29], [32] & [34].

appear to be excessive. The same could be said of the conduct of the examinations for discovery".¹⁹

In *Drummond v The Cadillac Fairview Corp Ltd*,²⁰ the Canadian Courts also had to decide on whether costs of legal research done via online databases could be recoverable (e.g. the cost of searches on WestLaw and the corresponding lawyer's billable hours associated with such searches). The court found that computer-assisted legal research is a necessity and is a recoverable counsel fee item and disbursement.²¹

"My own view is that the hours spent on legal research is recoverable both as a component of counsel fee and as a disbursement. The reality is that computer-assisted legal research is a necessity for the contemporary practice of law and computer assisted legal research is here to stay with further advances in artificial intelligence to be anticipated and to be encouraged. Properly done, computer assisted legal research provides a more comprehensive and more accurate answer to a legal question in shorter time than the conventional research methodologies, which, however, also remain useful and valuable. Provided that the expenditure both in terms of lawyer time and computer time is reasonable and appropriate for the particular legal problem, I regard computer-assisted legal research as recoverable counsel fee item and also a recoverable disbursement."

Beyond the use of AI or technology in legal research and discovery, firms are also increasingly forced to adopt solutions which allow them to close deals using digital solutions and to deal with virtual trials. In *Capic v Ford Motor Company of Australia Limited (Adjournment)*,²² the Australian court refused the application for an adjournment of trial in view of COVID-19, on the basis that virtual trial was an available option. It is clear that lawyers can no longer cite an inability to use a technological tool or a lack of knowledge of a technological tool as a reason for not

¹⁹ [2018] ONSC 6959, [24].

²⁰ [2018] ONSC 5350.

²¹ [2018] ONSC 5350, [10].

²² [2020] FCA 486.

using them (e.g. lawyers cannot cite an inability to use Zoom as a reason for not proceeding with a virtual hearing).

Thus, lawyers can no longer shy away from the use of legal tech tools, not only because there are real cost considerations, but because they are increasingly recognised by the courts as a necessary requirement.

IV. DUTIES INVOLVED IN THE USE OF LEGAL TECH TOOLS

A. Duty of confidentiality

In the light of the rise in cybersecurity threats, lawyers would need to ensure that the adoption of technology would not result in a breach of their duty of confidentiality (PCR Rule 6: *Confidentiality*).

Just as technology has created new ways for people to work, it has also created new ways for criminals to steal data. For instance, instead of having to break into a law firm's office to steal information, a hacker can break into the law firm's network to obtain the relevant data, if the law firm's network is not secure.

A lawyer must therefore ensure that there are adequate measures in place to manage the cybersecurity risks. These measures would require the law firm or lawyer to review both the 'technical' aspects of the legal tech tools, as well as the 'human' aspects of such tools.

1. Choosing the right legal tech tools

Prior to using any legal tech tools, it is important for lawyers to consider the cybersecurity risks involved in using the tool. This is especially important, given that many legal tech tools now leverage on cloud computing, and in order to access such services, users are often asked to upload documents which may include their client's sensitive data to the cloud computing server.

The Evolution of Legal Ethics

For instance, Casetext's CARA AI requires one to upload his submissions and opponent's submissions to the cloud. CARA will then scan through the submissions and search for authorities which are related to the case. While the purpose of uploading the submissions is mainly to search for the relevant case authorities, the user should also consider the fact that such submissions often contain data related to the case, some of which might be commercially sensitive.

This issue applies similarly to a lawyer who uses Zegal or other cloud-based contract-generating platforms. By using these platforms to generate contracts for their clients, these platforms may end up having access to the lawyer's client data depending on how the systems are designed.

As such, depending on whether the relevant legal tech tool is outsourced or developed in-house, a lawyer using those legal tech tools would have a duty to ensure that the relevant developers put in place the necessary measures to secure the data uploaded or shared by the lawyer.

From a practical perspective, lawyers can first refer to the Law Society's Guide to Cybersecurity²³ and the Guidance Note 3.4.1. on 'Cloud Computing',²⁴ which set out the relevant standards for services, such as cloud computing. Having reviewed these documents, lawyers can ask the legal tech service provider a series of questions to see if the legal tech tools meet the appropriate cybersecurity requirements.

In many cases, the legal tech service provider would already have answers to these questions. In this regard, it is also suggested that legal tech service providers can review these guides and provide useful summaries to all their users or potential users on how they have put in place the necessary measures to ensure the security of the lawyers' data.

²³ See The Law Society of Singapore's Cybersecurity and Data Protection Committee 2019-2020, 'Guide to Cybersecurity for Law Practices' (*Law Society of Singapore*, 30 March 2020) <www.lawsociety.org.sg/wp-content/uploads/2020/03/Guide-to-Cybersecurity.pdf> accessed 11 May 2020.

²⁴ See The Law Society of Singapore, 'Guidance Note 3.4.1: Cloud Computing' (*The Law Society of Singapore*, 10 March 2017) <www.lawsociety.org.sg/wp-content/uploads/2020/03/Cloud-Computing-GN-3.4.1.pdf> accessed 11 May 2020.

2. Managing the human aspects in the use of legal tech tools

Apart from choosing legal tech tools with the appropriate cybersecurity measures in place, lawyers also need to ensure that the people (including non-practitioners) who are using those tools know how to use the tools in a secure manner. This means that the law firm needs to put in place the necessary cybersecurity governance measures, such as those set out in Chapter 5 of the Law Society's Guide to Cybersecurity.²⁵ After all, human beings may be the weakest link in a system. For instance, even if a law firm has a robust email system with strong cybersecurity features, it may still be vulnerable to data leaks if an employee uses a weak password which can be cracked easily.

In addition, lawyers also have a duty to inform their clients that their data may be shared with external legal tech solutions provider(s) and to explain the cybersecurity risks involved. In this regard, it may also be prudent to obtain the clients' consent prior to using the various legal tech tools. If the lawyers already have a list of legal tech tools that they use for all cases, such consent may be included in the letter of engagement. These steps are necessary to ensure that the clients understand who has access to their data and to reduce the risk of any allegation that the use of legal tech tools is in breach of the duty of confidentiality.

B. Duty to Supervise

Lawyers also have a duty to supervise their staff who are unauthorised to practise law in their use of these legal tech tools in the delivery of legal services (PCR Rule 32: *Responsibility for staff of law practice*; Law Society's Guidance Note 3.7.1 on 'Supervision of Paralegals').²⁶

As mentioned above, legal tech tools offer the opportunity for legal work to be commoditised and automated. This means that law firms could potentially get their staff who are unauthorised to practice law to handle a bigger component of the

²⁵ Law Society of Singapore, n 23.

²⁶ See The Law Society of Singapore, 'Guidance Note 3.1.1: Supervision of Paralegals' (*The Law Society of Singapore*, 31 January 2019) <www.lawsociety.org.sg/wp-content/uploads/2020/03/13.-Supervision-of-Paralegals-GN-3.7.1.pdf> accessed 11 May 2020.

The Evolution of Legal Ethics

work for certain matters. For instance, a paralegal could help to key in all the relevant data to a contract-generating platform, which could produce a draft contract ready for the lawyer's review.

In addition, with the advent of technology, law firms are increasingly looking to hire coders, legal technologists or legal project managers to transform their legal practices. While lawyers may not be able to supervise the work (e.g. code) produced by these individuals, lawyers should at least ensure that these individuals are not practising law as an advocate and solicitor in the manner as set out in paragraph 4 of Guidance Note 3.7.1 on 'Supervision of Paralegals'.²⁷

On this note, in a world where law firms are increasingly trying to outsource their low-value work, the legal profession would also need to consider whether their duty to supervise should extend to third-party providers and the software used.

For instance, under the American Bar Association's ('ABA') Model Rule 5.3,²⁸ lawyers have a duty to supervise both the non-lawyers in the firm and non-lawyers outside the firm, as long as these parties are involved in assisting the lawyers in the provision of legal services. This includes, for instance, a third-party vendor hired to handle document review in a complex litigation or document automation processes in a complex commercial deal. If this rule were to be similarly adopted in Singapore, it is suggested that the scope of such duties must be set out clearly, so that the lawyers can effectively comply with such duties. Otherwise, any such rule may eliminate any cost efficiencies offered by legal process outsourcing if the lawyers are expected to spend time and money to supervise third-party vendors as if they are part of the law firm.

Perhaps the more controversial development of this rule lies in the duty to supervise non-humans, such as legal AI tools or any legal tech software. In 2012,

²⁷ *ibid*, para 4.

²⁸ See American Bar Association, 'Rule 5.3 Responsibilities Regarding Nonlawyer Assistance – Comment' (*American Bar Association*) <www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_5_3_responsibilities_regarding_nonlawyer_assistant/comment_on_rule_5_3/> accessed 11 May 2020.

the ABA resolution for the amendment of Rule 5.3 stated that the change was intended to clarify that this rule encompasses ‘non-lawyers *whether humans or not*’ (emphasis added). Given the complex nature of this issue, this paper will not attempt to provide an opinion on whether the approach taken by the ABA Model Rule 5.3 should be adopted in Singapore. Nevertheless, it is suggested that any attempt to expand the duty to supervise to include non-humans must be carefully considered, so that we do not end up impeding the development of all legal tech tools.

C. Ethical duties

Lawyers need to understand the ethical risks posed by legal tech tools, especially when it comes to legal AI tools. As far as possible, lawyers should ensure that the tools that they use are ‘ethical-by-design’.

It is well known that the use of ‘AI’ or data analytics in law has given rise to many ethical concerns, such as the risk of discrimination and the lack of transparency. For instance, there are studies which suggest that the algorithms used in the United States of America to assess a criminal defendant’s likelihood to re-offend are biased against the African American population.²⁹ African American defendants were often predicted to be at a higher risk of recidivism than they actually were, while white defendants were often predicted to be less risky than they were.

The potential bias perpetuated by these algorithms or legal AI tools are often unintentional. Instead, given that many such tools use existing data (e.g. case law) to provide predictive analytics, the bias in the algorithm is often a reflection of the bias which is already present in our current criminal justice system and our society in general. In other words, if left unchecked, these legal AI tools could potentially exacerbate the biases that exist in our society.

²⁹ See Jeff Larson and others, ‘How We Analyzed the COMPAS Recidivism Algorithm’ (*ProPublica*, 23 May 2016) <www.propublica.org/article/how-we-analyzed-the-compas-recidivism-algorithm> accessed 11 May 2020.

The Evolution of Legal Ethics

As such, lawyers need to understand the risks of bias in legal tech tools which employ various AI-related technologies, and how these risks might hurt their clients' interests. In cases where the law firms are designing their own legal AI tools, the lawyers must be careful to ensure that the data used is carefully reviewed to minimise bias.

In addition, lawyers also need to consider how the lack of transparency in certain legal tech tools will affect their duty to communicate and explain their advice to their clients. For instance, an 'AI-powered' electronic discovery tool may automatically sort out the documents which are necessary and relevant for disclosure based on a set of parameters. In these cases, it is important that lawyers can explain how the AI arrived at the outcome (e.g. the methodology of the machine learning). In this regard, the lawyers may also consider whether the use of legal AI tools which are "unexplainable"³⁰ would run contrary to their duty to explain their advice to their clients.

Overall, it is important that lawyers adopt legal tech tools which are 'ethical-by-design'. Over the last few years, various countries and organisations have started to develop their respective AI governance frameworks, which set out a list of ethical principles and practical considerations in the use of AI.

In Singapore, lawyers can refer to the AI Model Governance Framework³¹ published by the IMDA and PDPC to consider whether the legal tech tools they use comply with the guiding principles in the use of AI. Furthermore, lawyers can refer to the European Ethical Charter on the use of AI in judicial systems and their environment³² for a framework specifically designed for AI tools used in the legal industry.

³⁰ Infocomm Media Development Authority & Personal Data Protection Commission, 'Model Artificial Intelligence Governance Framework Second Edition' (*Personal Data Protection Commission Singapore*, 21 January 2020) <www.pdpc.gov.sg/-/media/files/pdpc/pdf-files/resource-for-organisation/ai/sgmodelaigovframework2.pdf> accessed 11 May 2020: 'explainability is achieved by explaining how deployed AI models' algorithms function and/or how the decision-making process incorporates model predictions'.

³¹ *ibid.*

³² European Commission for the Efficiency of Justice (CEPEJ), 'European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their environment' (Strasbourg, December 2018) <<https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c>> accessed 17 June 2020.

While these AI governance frameworks might differ slightly in their proposed approach, it is suggested that there is a consensus that lawyers will need to review the legal AI tools with the following factors in mind:³³

- (i) Fairness;
- (ii) Transparency;
- (iii) Explainability;
- (iv) Data accuracy and security;
- (v) Collaboration and inclusivity (e.g. access to justice and multidisciplinary approach, the involvement of judges, prosecutors, lawyers etc.); and
- (vi) User control.

V. CONCLUSION

What we have seen in 2020 thus far (and it has only been 6 months) demonstrates the importance of understanding the evolution of legal ethics with the advent of technology. The COVID-19 pandemic has forced many lawyers to adopt technology at a faster pace, and the #BlackLivesMatter movement brings to focus the debate on systemic racism and bias which exist in our society. It is therefore hoped that this paper will help lawyers and the various stakeholders in the legal profession better understand the issues that we need to consider as we adopt new technologies in the delivery of legal services.

It is not only important that lawyers are able to advise their clients on the use of various legal tech tools to help improve the quality and affordability of legal services, but it is also important for lawyers to be able to use these legal tech tools in manners which comply with their professional and ethical duties. In this process, the legal profession must not leave anyone behind. This means that the lawyers who are struggling to adopt new technologies should be given the necessary assistance, and lawyers must ensure that their clients are not put in a worse

³³ Refer to the definitions used in the Artificial Intelligence Model Governance Framework, n 30.

The Evolution of Legal Ethics

position by legal tech tools which might exacerbate the existing biases or inequalities in our society.

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