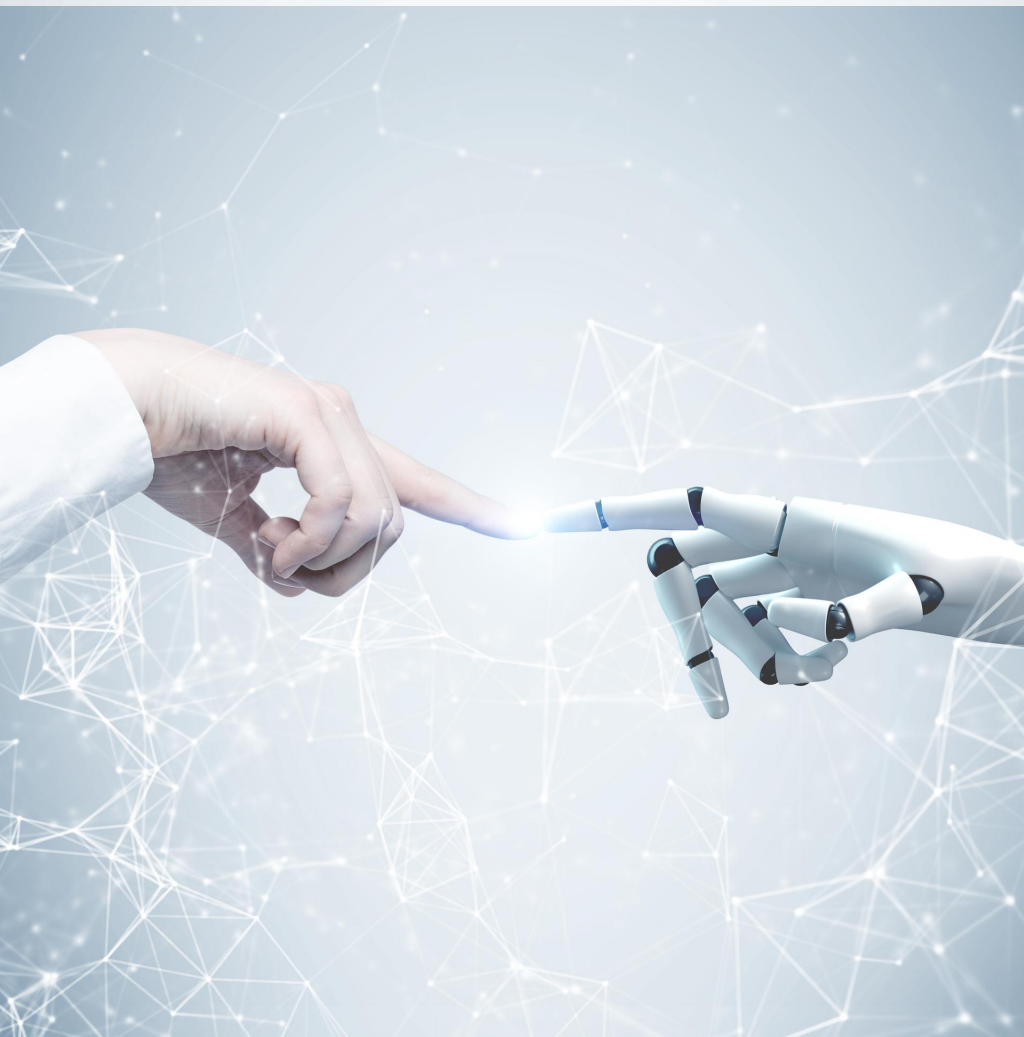


# LRD COLLOQUIUM 2020 RESEARCH PAPER SERIES



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

Whilst every effort has been made to ensure that the information contained in this research paper presented at the Colloquium and published herein are accurate, The Law Society of Singapore does not accept responsibility for any errors or omissions in this research paper. Weblinks cited in this research paper are functioning as of the date of publication.

The views and opinions expressed in this research paper are those of the author(s) only, and not those of The Law Society of Singapore. In particular, no views or any legal analysis included in this research paper should be attributed to The Law Society of Singapore.

## **COPYRIGHT NOTICE**

No part of this research paper may be reproduced without the permission of the author(s) and The Law Society of Singapore.

# Panel 1

## The Role of Lawyers in the Age of Disruption

### Analysing the Traditional Roles of Lawyers in Light of Technology in Singapore

Amelia Chew, Jennifer Lim Wei Zhen  
& Irene Ng (Huang Ying)

## ANALYSING THE TRADITIONAL ROLES OF LAWYERS IN LIGHT OF TECHNOLOGY IN SINGAPORE

Amelia Chew,<sup>\*</sup> Jennifer Lim Wei Zhen<sup>\*\*</sup> & Irene Ng (Huang Ying)<sup>\*\*\*</sup>

*The role of lawyers has traditionally been defined and described by their areas of practice: e.g. mergers & acquisitions, litigation, investigations. Technological developments have, however, put pressure on the traditional roles of lawyers, and this paper intends to analyse: (1) how such traditional roles have morphed; and (2) the impact this has on lawyers. It first examines and breaks down the traditional roles of lawyers and suggests that the role of lawyers should be redefined by the types of problems their practice aims to resolve. This paper then provides an overview of the different types of technology and argues that technological solutions enhance the ability of the lawyer to gather data, generate insights and make predictions but do not replace the lawyer's decision-making role. It concludes with an analysis of how certain technologies have influenced and shaped the roles of lawyers.*

### I. INTRODUCTION

In recent years, several defining events have fueled the doomsday narrative that artificial intelligence ('AI') will replace lawyers: when machine learning-powered AlphaGo beat a Go world champion, and when human lawyers were pitted against AI in a review of non-disclosure agreements and the latter achieved better speed and accuracy.<sup>1</sup> In spite of

---

<sup>\*</sup> Amelia Chew is Co-Founder at LawTech.Asia, an online publication that aims to drive the discourse surrounding law, technology and policy issues in Asia. Amelia's passion for harnessing technology to make the provision of legal services more efficient and accessible has led to her sustained involvement in the legaltech scene since 2016. She has worked at legaltech startups Zegal and Luminance, co-organised the inaugural APAC Legal Hackers Summit, and spoken on panels about the future of the legal industry. Amelia holds a Double Degree in Law and Liberal Arts from the National University of Singapore and Yale-NUS College.

<sup>\*\*</sup> Jennifer Lim Wei Zhen graduated from NUS Law in 2017. She co-founded LawTech.Asia, and sits on the founding steering committee of the Asia-Pacific Legal Innovation and Technology Association. Featured in Asia Law Portal's Top 30 in the business of law to watch in 2019, Jennifer is presently an associate at a leading law firm in Singapore. Passionate about access to justice and technology, Jennifer has spoken on panels on legal technology, co-organised the inaugural APAC Legal Hackers Summit and Computational Law + Blockchain Festival.

<sup>\*\*\*</sup> Irene Ng (Huang Ying) is a Senior Attorney (Singapore, New York) at the Corporate/M&A team at CMS Reich-Rohrwig Hainz, Austria. Irene obtained her PhD at the University of Vienna where she wrote on the regulation of the legal profession in light of legal technology with a focus on the EU. She also serves as a Research Fellow at the Centre for Artificial Intelligence and Data Governance (Singapore Management University) and as a Fellow at the Stanford-Vienna Transatlantic Technology Law Forum.

<sup>1</sup> LawGeex, 'AI vs Lawyers: The Ultimate Showdown' (LawGeex) <[www.lawgeex.com/resources/aivslawyer/](http://www.lawgeex.com/resources/aivslawyer/)> accessed 4 May 2020.

## Analysing the Traditional Roles of Lawyers

such attention-grabbing headlines, the reality of the impact of technology on the roles of lawyers is much more measured. This paper analyses how technology has influenced the role of the lawyer as a trusted advisor. Section II provides an overview of the role of lawyers and argues that, whether the role of lawyers is to be understood in terms of practice areas or the overarching functions that they perform, they should be understood in terms of three main roles: information provision, advisory and representation. Section III goes on to outline the different categories of legal technology available under two broad umbrellas – baseline automation and artificial intelligence – and argues that legal technology solutions benefit lawyers by allowing them to achieve time and cost efficiencies, as well as enhance their ability to gather data, generate insights and make predictions but do not replace their decision-making role. Section IV examines how technology has resulted in the creation of new roles for lawyers centred around legal technology and innovation, influenced the traditional roles of lawyers, and introduced the possibility of bundling legal and tech products as an enhanced offering. In Section V, we argue that lawyers are unlikely to be displaced in light of the current state of technology and existing regulations around the provision of legal services. We conclude with the observation that technology has transformed and not displaced the role of lawyers.

### **II. AN OVERVIEW OF DIFFERENT ROLES/FUNCTIONS OF LAWYERS IN SINGAPORE**

The crux of the role of lawyers generally hinges on lawyers' ability to solve problems and design solutions for their clients. In this regard, while there are different ways to view the role of lawyers, one perspective would be to view the role of lawyers through the following lenses: (a) the type of subject matter expertise they have; and (b) the types of solutions they provide. For the former category, lawyers are typically seen in terms of the traditional practice areas that they practice in; whilst for the latter, lawyers are typically seen in the types of work they do or the skills that they have. This is illustrated below:

**Table 1: Role of Lawyers**

(A) Practice Areas	(B) Work / Skills
<p>The following is an overview of some of the traditional areas of practice which are traditionally marketed by law firms:</p> <ol style="list-style-type: none"> <li>1. Dispute Resolution (including Alternative Dispute Resolution)</li> <li>2. Restructuring &amp; Insolvency</li> <li>3. Crime &amp; Investigations</li> <li>4. Family (Matrimonial, Wills, Estate Planning, Probate &amp; Administration)</li> <li>5. International Law</li> <li>6. Intellectual Property &amp; Technology</li> <li>7. Competition Law</li> <li>8. Financial Services Regulation</li> <li>9. Real Estate</li> <li>10. General Corporate</li> <li>11. Mergers &amp; Acquisitions</li> <li>12. Funds</li> <li>13. Finance</li> <li>14. Construction, Projects, Energy &amp; Infrastructure</li> <li>15. Aviation</li> <li>16. Shipping</li> </ol>	<p>While there are many different practice areas, the overarching roles/functions lawyers perform include:</p> <ol style="list-style-type: none"> <li>1. Advocacy (Representation in Court, at Mediations)</li> <li>2. Negotiations (in both a Disputes and Corporate setting)</li> <li>3. General Strategy/Advice</li> <li>4. Structuring Deals, Corporate Structure, Transactions</li> <li>5. Project Management</li> <li>6. Drafting (Contracts)</li> <li>7. Drafting (Submissions, Affidavits, Witness Statements, Letters etc.)</li> <li>8. Document Review &amp; Analysis</li> </ol>

Undergirding these two lenses is the notion that a lawyer resolves a client’s problem and designs solutions for them by: (a) providing information about the available solutions and information (‘Information Provision’); (b) advising them on which option is the best way forward (‘Advisory’); and (c) executing the strategy – be it in terms of drafting submissions, drafting contracts, structuring the deal or representing clients in court (‘Representation’). Regardless of whether the role of a lawyer is viewed from either lens (A) or (B), the key question remains: how will these roles evolve with the advent of technology?

## Analysing the Traditional Roles of Lawyers

This paper outlines how these roles, i.e. Information Provision, Advisory and Representation have been influenced or impacted by technology. It will discuss how technology has assisted with the information-provision role of lawyers by helping to present options to clients and educating them about the options they can pursue, although it is suggested that it cannot fully displace or replace the lawyers' Advisory or Representation role. Further, it will explore how technology has also assisted lawyers to discharge their roles more efficiently and allows lawyers to deliver quality services for lower fees. The impact of technology on lawyers is large as it frees up their time to take on more files, and at the same time, technology also creates new roles for lawyers, such as to advise clients on structuring and transacting via smart contracts.

### III. AN OVERVIEW OF THE TYPES OF TECHNOLOGY AND THE ROLES THEY SERVE

In its 2018 survey of legal practitioners that assessed the level of technology adoption in Singapore law firms, the Law Society of Singapore defined legal technology as “information and communications technology tools [that] enable legal service providers to enhance productivity and deliver greater value to client”.<sup>2</sup> Examples of such legal technology include practice management software, online legal research platforms, e-Filing systems, e-Discovery platforms, document assembly software and contract review platforms.<sup>3</sup> Table 2 lays out a non-exhaustive list of various categories of legal technology solutions available as well as the providers of these solutions.<sup>4</sup>

---

<sup>2</sup> The Law Society of Singapore, 'Legal Technology in Singapore – 2018 Survey of Legal Practitioners' (*The Law Society of Singapore*, 14 March 2019) <[https://issuu.com/blackbox4/docs/lawsociety\\_legaltech\\_summary\\_report](https://issuu.com/blackbox4/docs/lawsociety_legaltech_summary_report)> accessed 4 May 2020.

<sup>3</sup> The Stanford Legal Center for Legal Informatics (also known as CodeX) curates an online list of legal tech companies and classifies them based on the services that they provide, e.g. marketplace, document automation, practice management, amongst others. As of 5 May 2020, the CodeX Techindex has listed 1,317 companies on its website. CodeX Techindex, 'Discover Legal Technology' <<https://techindex.law.stanford.edu/>> accessed 5 May 2020.

<sup>4</sup> Cai Xiaohan, Tristan Koh, Utsav Rakshit and Josh Lee (eds), 'Legal Technology in Singapore' (*LawTech.Asia*, 16 September 2019) <<https://lawtech.asia/legal-technology-in-singapore/>> accessed 4 May 2020.



**Table 2: Legal technology solutions available in Singapore**

Category	Solution(s)	Description / Functionalities
Practice management software	<ul style="list-style-type: none"> <li>● Clio</li> <li>● Firm Central (Thomson Reuters)</li> <li>● Lexis Affinity (LexisNexis)</li> <li>● Tessaract (Asia Law Network)</li> </ul>	<ul style="list-style-type: none"> <li>● Consolidates the support processes of the law firm</li> <li>● Functionalities typically include bill and expense tracking, creation and storage of case templates and optical character recognition (OCR) for extraction of text from documents</li> </ul>
Document assembly / contract generation	<ul style="list-style-type: none"> <li>● Online Will Generator (OCBC)</li> <li>● Vanilla Law Docs (Vanilla Law)</li> <li>● WillMaker (SingaporeLegalAdvice)</li> <li>● Zegal</li> </ul>	<ul style="list-style-type: none"> <li>● Allows individuals to draft a legal agreement by responding to a series of questions</li> </ul>
Document proofreading & formatting	<ul style="list-style-type: none"> <li>● Litera Microsystems</li> </ul>	<ul style="list-style-type: none"> <li>● Functionalities that assist lawyers with proofreading, comparing, repairing and cleaning documents</li> </ul>
Document review	<ul style="list-style-type: none"> <li>● Kira</li> <li>● Luminance</li> <li>● Pactly</li> </ul>	<ul style="list-style-type: none"> <li>● Document review and analysis software</li> <li>● May use machine learning algorithms to identify key terms in contracts, accelerating the process of risk assessment</li> </ul>

## Analysing the Traditional Roles of Lawyers

Knowledge management	<ul style="list-style-type: none"> <li>● INTELLEX</li> </ul>	<ul style="list-style-type: none"> <li>● Manage the knowledge base of law firms more efficiently by organising and storing completed work for future use</li> <li>● Categorisation of documents using machine learning and search algorithms strives to understand the legal context in order to retrieve more relevant search results.</li> <li>● Allows the lawyers within a law firm to upload, retrieve and share resources among themselves</li> </ul>
Legal analytics	<ul style="list-style-type: none"> <li>● Lex Quanta</li> </ul>	<ul style="list-style-type: none"> <li>● Applies data analytics to precedents to allow lawyers to interpret cases quantitatively</li> <li>● Outcome simulator (e.g. prediction of division of matrimonial assets in a divorce)</li> </ul>

While we tend to think about legal technology solutions based on practice areas, for an assessment of how legal technology impacts lawyers, it would be more fruitful to analyse these various solutions based on the kind of action it aims to replicate. For a start, there are legal technology solutions that come under the umbrella of *baseline automation*. Robotic Process Automation ('RPA') software mimics the activity of a lawyer in carrying out a task within a process, and is capable of completing repetitive tasks more quickly, accurately and tirelessly than humans.<sup>5</sup>

The benefit that baseline automation software brings to lawyers focuses on time and cost savings. By automating certain parts of the lawyer's workflow, such software allows lawyers to complete certain tasks and perform their Information Role much more quickly than they ordinarily would, using conventional, manual processes.

---

<sup>5</sup> Xavier Lhuer, 'The Next Acronym You Need to Know About: RPA (Robotic Process Automation) ' (*McKinsey Digital*, 6 December 2016) <[www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-next-acronym-you-need-to-know-about-rpa](http://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-next-acronym-you-need-to-know-about-rpa)> accessed 4 May 2020.

One possible use for contract automation would be the generation of standard form contracts, such as the standard Option to Purchase and Sale Purchase Agreement for a real estate development pursuant to the Housing Developer Rules in Singapore.<sup>6</sup> These standard form contracts can be quickly designed to be automated as there are few defined variables in the contract that requires amendment. Such an automation would reduce the time needed for lawyers to manually delete and amend the details, thereby increasing efficiency and minimising errors (e.g. by accidentally deleting clauses or sentences in the draft). All in all, the time savings that this brings enhances the lawyer's practice in several ways. First, it allows the lawyer to spend less time doing low-level repetitive tasks and move to the higher-value analytical work earlier on in the project. This allows the lawyer to deliver work to the client more quickly. Second, it results in cost savings that can benefit the firm if the project is charged on a fixed fee arrangement. Third, the cost savings could potentially be passed on to the client, thereby building the firm's reputation as one that provides value-for-money legal services.

Another set of legal technology solutions fall under the umbrella of AI. AI refers to a set of technologies that seek to simulate human cognitive functions such as knowledge, reasoning, problem solving, learning and planning, and, depending on the AI model, produce an output or decision (e.g. prediction, recommendation, classification).<sup>7</sup> In the legal industry, AI has been deployed in a range of workflows and processes, including legal research, knowledge management, contract review and discovery.<sup>8</sup> Most legal technology products that claim to involve AI typically use some combination of natural language processing and machine learning, the latter being the subset of AI where

---

<sup>6</sup> Use the Standard Option to Purchase and Sale and Purchase Agreement in the Sale of the Units ' (Urban Redevelopment Authority) <[www.uragov.sg/Corporate/Guidelines/Developers/Housing-Developers/Housing-Developers/standard-option](http://www.uragov.sg/Corporate/Guidelines/Developers/Housing-Developers/Housing-Developers/standard-option)> accessed 4 May 2020.

<sup>7</sup> This definition is adapted from several resources, including The Law Society, 'Horizon Scanning: Artificial Intelligence and the Legal Profession' (*The Law Society of England and Wales*, 1 May 2018) <[www.lawsociety.org.uk/support-services/research-trends/horizon-scanning/artificial-intelligence/](http://www.lawsociety.org.uk/support-services/research-trends/horizon-scanning/artificial-intelligence/)> accessed 4 May 2020; and Infocomm Media Development Authority, 'Model AI Governance Framework (second edition)' (*Personal Data Protection Commission*, 22 January 2020) <[www.imda.gov.sg/infocomm-media-landscape/SGDigital/tech-pillars/Artificial-Intelligence](http://www.imda.gov.sg/infocomm-media-landscape/SGDigital/tech-pillars/Artificial-Intelligence)> accessed on 4 May 2020.

<sup>8</sup> See Table 2 in this paper at Document Review. Kira Systems and Luminance are examples of such AI powered software. Luminance 'The Artificial Intelligence Platform for the Legal Profession' (*Luminance Technologies*, 2020) <[www.luminance.com/](http://www.luminance.com/)> accessed 4 May 2020; Kira Systems 'Kira' (*Kira Inc.*, 2020) <<https://kirasystems.com/>> accessed 4 May 2020.

## Analysing the Traditional Roles of Lawyers

algorithms are used to parse data and learn from it without being explicitly programmed.<sup>9</sup> It is argued that the use of artificial intelligence has the potential to enhance the quality of advice that lawyers provide in their Advisory Role.

In general, machine learning solutions can be categorised based on the high-level component of human activity that it tries to replicate: (a) data; (b) insight; (b) prediction; (c) decision; and (d) action.<sup>10</sup> The table below provides an example of how the components of human activities might apply in the context of due diligence for an M&A transaction.

**Table 3: Components of human activity in the context of M&A due diligence**

Component of human activity	Activity	Example
Data	Collate raw and unprocessed information that is used to make the decision	Reading contracts, compiling spreadsheets of clauses
Insight	Derive observations, hypotheses and conclusions based on an analysis of data. Corresponds with predictive analytics.	This one contract out of a hundred similar contract has a differently worded limitation of liability clause.
Prediction	Predict the outcomes of several potential courses of action. Corresponds with predictive analytics.	Based on a review of the contracts, we anticipate that following through with the transaction would lead to risks A, B and C.
Judgment	Recommend a course of action. Corresponds with prescriptive analytics.	Given the company's business priorities and risk profile, I think the best course of action is to negotiate for a lower price.
Action	Apply the course of action	Proceeding with the deal

<sup>9</sup> Law Society of Singapore (n 3).

<sup>10</sup> Ajay Agarwal, Joshua Gans and Avi Goldfarb, 'The Simple Economics of Machine Intelligence' (*Harvard Business Review*, 17 November 2016) <<https://hbr.org/2016/11/the-simple-economics-of-machine-intelligence>> accessed 4 May 2020.

An analysis of the role of AI in a lawyer's workflow would involve understanding which of these components of human activity the AI solution aims to replicate or assist with. Arguably, AI solutions primarily function to replicate the first three components of human activity – data, insight and prediction – and do not go so far as to make a judgment on the ideal course of action. An AI product essentially relies on underlying pattern-finding technology that is trained, and self-trained, to extract key insights from large volumes of data.

The 'pain points' that legal AI solutions typically aim to solve include organising large volumes of data (e.g. contracts, cases), extracting relevant information or insights from large pools of data and minimising the risks brought about by human error. For example, document review platforms such as Luminance and Kira Systems use machine learning to analyse a large volume of contracts, identify the types of clauses within these contracts and flag anomalies within the document set (e.g. differently worded clauses, missing pages).<sup>11</sup> Document review platforms therefore assist with the data and insight components of human activity by providing a central platform for lawyers to access their documents for review and providing insights into the contents of the contracts. The lawyer is then able to harness these insights to make predictions about the outcomes of several courses of action, and eventually recommend a course of action. There are also legal AI solutions that make predictions. For example, an outcome simulator that predicts the division of matrimonial assets in a divorce case essentially looks at a dataset of precedents to make an assessment of how the courts are likely to rule based on a certain factual matrix.<sup>12</sup>

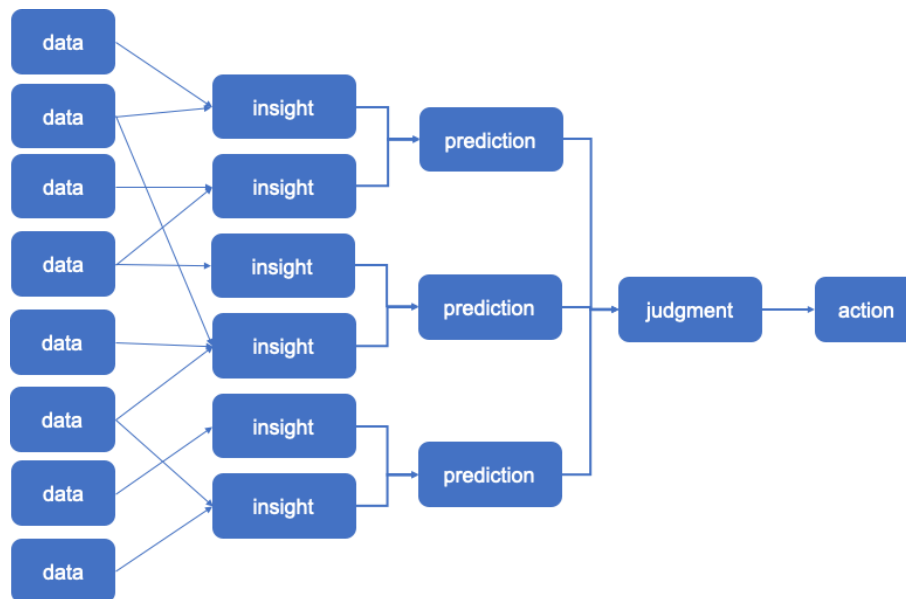
---

<sup>11</sup> Luminance (n 9); Kira Systems (n 9).

<sup>12</sup> An example is Lex Quanta. See Fabian Koh, 'NUS Law and Economics Student, Along with Three Peers, Creates Case Outcome Simulator' *The Straits Times* (Singapore, 7 January 2018) <[www.straitstimes.com/singapore/nus-law-and-economics-student-along-with-three-peers-creates-case-outcome-simulator](http://www.straitstimes.com/singapore/nus-law-and-economics-student-along-with-three-peers-creates-case-outcome-simulator)> accessed 4 May 2020.

## Analysing the Traditional Roles of Lawyers

Diagram 1: Mapping the Decision-Making Process



However, legal AI solutions have not gone so far as to replace the decision-making or advisory and representation role that lawyers play. This is because arriving at a single judgment typically requires weighing up several different tracks of insights and predictions as demonstrated in the diagram above, a function that a single AI product cannot perform. The reality is that most AI solutions are not designed to make a judgment but rather, produce the necessary information to feed into the judgment. As a result, most legal AI solutions currently employ a ‘human-in-the-loop’ decision-making model.<sup>13</sup> Using the example of an M&A transaction again, document review platforms such as Luminance automatically labels the types of clauses that can be found in a document.<sup>14</sup> Where the human reviewer determines that the labels have been applied incorrectly by the platform, he has the option to change the label and re-categorise the clause accordingly.

<sup>13</sup> There are several broad AI decision-making models:

- a. *Human-in-the-loop*: Human retains full control and AI only provides recommendations or input. The AI needs affirmative action by humans to exercise a decision. This covers the insight and prediction levels.
- b. *Human-out-of-the-loop*: There is no human oversight over the execution of decisions. The AI has full control without the option of human override.
- c. *Human-over-the-loop*: Allows humans to adjust parameters during the execution of the algorithm.

<sup>14</sup> Luminance (n 9).

Drawing on the insights provided by the document review platform, a lawyer advising his client on the risks of proceeding with the deal would weigh the risks against the client's business priorities to make a judgment. The role of the AI product is to serve as a tool that enables lawyers to generate insights and make predictions about the outcomes of various courses of action at much faster rates and lower costs than previously possible. The lawyer's role is to determine the implication of the insight or prediction for the client and decide on what strategy to take.

The benefits reaped by lawyers from the enhanced insights into data that AI solutions offer is in some ways similar to that of the baseline automation category: time savings and greater cost effectiveness. There is also the added benefit of reduced risk, as an AI algorithm designed to process large volumes of information has a lower chance of error.

The use of solutions thus causes a redefinition of the role of the lawyer, as the lawyer's job is less focused on tedious, repetitive data collation and more on the higher-level analytical work of prediction and judgment.

#### **IV. NEW ROLES FOR A TRADITIONAL INDUSTRY? AN ANALYSIS OF HOW TECHNOLOGY HAS IMPACTED THE ROLE OF A LAWYER**

##### ***A. Creation of new roles for lawyers***

In the Bucerius-Boston Consulting Group Report 2016<sup>15</sup> ('BCG Report'), a shift in how law firms will be structured was predicted – i.e. instead of an organisational structure that is heavily supported by junior lawyers, there would be a shift to a "rocket lawyer"<sup>16</sup> structure whereby technology or IT departments would partially replace the functions of a junior lawyer. In 2020, legal technology has grown to be a focus by the Law Society of

---

<sup>15</sup> Christian Veith and others, 'How Legal Technology Will Change the Business of Law' (Boston Consulting Group and Bucerius Law School, January 2016) <[https://f3cca18a-0d7b-426b-9404-86b930d9e63a.filesusr.com/ugd/b30d31\\_7b407b2c8c6b44d697957b7fa5db48c8.pdf](https://f3cca18a-0d7b-426b-9404-86b930d9e63a.filesusr.com/ugd/b30d31_7b407b2c8c6b44d697957b7fa5db48c8.pdf)> accessed 4 May 2020.

<sup>16</sup> *ibid* 10.

## Analysing the Traditional Roles of Lawyers

Singapore and the Singapore Academy of Law, and has also been heavily promoted amongst the legal industry in Singapore.<sup>17</sup> The strong interest in legal technology and the resulting investment in terms of time and resources in this field has created new roles for lawyers, if not at least concretised the importance of certain technology and knowledge management related roles.

Roles involving knowledge management and innovation have also become a staple in most international firms by now. In Singapore, many law firms have also introduced legal technology and innovation roles<sup>18</sup> that are mostly undertaken as a new or an additional portfolio by lawyers. The role of a Legal Technology or Innovation manager ranges from finding an organised method of consolidating precedents and information used by different partners and associates into one organised central databank, to reviewing legal technology products to identify the right solutions to increase efficiency in the creation of legal products or provision of legal services to the law firms' clients. To provide an analogy, the Legal Technology and Innovation officer can be likened to an architect for the law firm. While this will probably not be seen as a new practice area (as per Section II) for lawyers, it can arguably be deemed a new skill that lawyers can pick up, i.e. information science in the context of law and technology.

Apart from the creation of this new role, legal technology has also allowed lawyers to specialise in providing legal services or advice on new technologies. Some of the more famous examples include the creation of a new specialisation for cryptocurrency lawyers and smart contract lawyers, amongst others. Nonetheless, despite these new roles, such lawyers are still categorised under traditional roles within the corporate department or finance department of a law firm, with a focus or specialisation in cryptocurrencies, so that their roles are still better understood by clients.

---

<sup>17</sup> See generally, The Law Society of Singapore, 'Legal Productivity and Innovation' <[www.lpi.lawsociety.org.sg/](http://www.lpi.lawsociety.org.sg/)> accessed 4 May 2020; Future Law Innovation Programme <[www.flip.org.sg/](http://www.flip.org.sg/)> accessed 4 May 2020.

<sup>18</sup> For instance, some Singaporean law firms have announced knowledge management managers or teams: Drew and Napier, 'The Knowledge Management Team' (*Drew & Napier LLC*, 2018) <[www.drewnapier.com/Publications/The-Knowledge-Management-team](http://www.drewnapier.com/Publications/The-Knowledge-Management-team)> accessed 4 May 2020.



**B. Influencing and shaping the roles of lawyers**

Technology has not only created new roles for lawyers, but influenced and shaped existing roles that lawyers play. As mentioned in the preceding section, the creation of a new legal technology and innovation role will now allow lawyers to consider an alternative career path rather than the usual associate to equity partner track - a career path that allows them to put their legal knowledge to use, while at the same time, play a bigger role in helping to grow the firm in a different way by embracing digital innovation.

Certain legal technology tools, which are designed to help lawyers improve efficiency in their practice, can also influence and shape the roles of lawyers by encouraging lawyers to consider picking up new skills, such as programming or legal design. This is especially pertinent in the field of contract automation for example, whereby creating contract templates for subsequent automation requires skills that are not normally taught in law school. For instance, Firelex is a contract automation platform where users use a modified form of Javascript to code contracts.<sup>19</sup> Lawyers are also required to design their contracts by determining which elements can be automated -- in terms of formatting and actual legal substance -- and the practical implementation to automate these elements.

One such instance occurs when automating a contract that requires the user to key in a specific field, for example, a date. The programmer-lawyer of the contract automation software would have to decide whether he or she would allow client-consumers of the contract generator to key in their own dates, or to provide a calendar from which the client-consumer can click and choose the specific date. If the purpose of contract automation is to increase efficiency in drafting by reducing or minimising errors, then it would make sense to design the contract generator with the latter option in mind, by limiting the choice in which a client-consumer can input the date required.

---

<sup>19</sup> Firelex, 'Document Automation by Lawyers for Lawyers' (*Firelex*, 2019) <<https://firelex.com/>> accessed 4 May 2020.

## Analysing the Traditional Roles of Lawyers

Some law firms have also pushed for the adoption of new skills by lawyers by providing courses on the foundations of contract automation. One such example would be Clifford Chance's 'Automation Academy', which runs "in conjunction with Josef, a legal automation platform that allows lawyers to create bots".<sup>20</sup> To further equip lawyers with such skills, universities such as the Bucerius Law School and Singapore Management University have rolled out legal technology programmes for practising lawyers that aim to develop such non-traditional legal skills. Another area of interest would be the replacement of traditional contracts by smart contracts, and this has been widely discussed by academics. It should, however, be noted that while theoretically everyone can draft contracts (the quality of which is of course dependent on the skill and expertise of the person), only programmers can code smart contracts. This topic would be of interest if there is a growing trend towards using smart contracts as a substitute to traditional contracts.

### **C. The merger of law and technology**

Legal technology has also influenced law firms in another way -- by giving law firms the opportunity to fuse technology solutions with their practice and provide a bundle of technology and legal products to their clients. Rajah & Tann, one of the largest Singapore law firms, has launched its own legal technology arm called Rajah & Tann Technologies, that aims to provide "multidisciplinary solutions"<sup>21</sup> through "new legal service delivery models".<sup>22</sup> Another Singapore law firm, VanillaLaw, has its VanillaLawDocs platform that intends to be a "do-it-yourself document assembly ecosystem just for business owners".<sup>23</sup> In some cases, legal technology platforms also partner with law firms to provide a comprehensive legal solution for the client. One such example would be Zegal, which provides contract templates for users and should these users require more complex legal

---

<sup>20</sup> Amelia Chew, 'Clifford Chance launches Automation Academy to empower the next generation of lawyers' (*LawTech.Asia*, 22 January 2020) <<https://lawtech.asia/clifford-chance-automation-academy/>> accessed 4 May 2020.

<sup>21</sup> Rajah & Tann Technologies, 'Tech-enabled Legal Solutions' (*Rajah & Tann Technologies Pte. Ltd.*, 2020) <[www.rtechlaw.com](http://www.rtechlaw.com)> accessed 4 May 2020.

<sup>22</sup> *ibid.*

<sup>23</sup> VanillaLawDocs <<https://vanillalawdocs.com/>> accessed 4 May 2020.

solutions or require assistance with understanding the clauses in the document assembly system, the platform redirects them to the partner law firms that they work with.<sup>24</sup> In these cases, users of the technology tools can first benefit from technological solutions for their legal needs, and if their legal issues are more complex, they have the option of quickly engaging a legal team for further assistance - such a solution would then be a merger of technology and legal solutions.

## V. EXAMINING THE FUTURE OF LAWYERS WITH SUCH TECHNOLOGIES

Despite the impact of technology on lawyers and law firms, it is unlikely that lawyers will be displaced by technology (at least from the provision of legal services) from the viewpoint of the current state of technology available.

The current state of technology primarily serves to assist with helping lawyers in providing more efficient solutions for their clients by minimising the amount of time needed to produce the same legal solution or product. For example, contract drafting or review solutions such as Luminance<sup>25</sup> and HotDocs<sup>26</sup> are designed for use by lawyers or in-house counsel (who are typically trained legal professionals or lawyers formerly in private practice) to make their legal practice more efficient. They are not intended as 'do-it-yourself' ('DIY') legal platforms for the average client of a law firm to use and operate. Such software may, however, impact the revenue generation mechanism of a law firm as most law firms generally charge by the hour; therefore, more efficient technology solutions resulting in less billable hours may result in lower and more competitive fees amongst law firms. Nonetheless, what would change would be the revenue generation mechanism, rather than the provision of legal services by a different legal service provider.

Furthermore, while technology is unlikely to displace the representation role of the lawyer, it can change the mode or forum of representation. Due to the impact of the COVID-19

---

<sup>24</sup> Zegal 'Create. Collaborate. E-sign!' (*Zegal*) <<https://zegal.com/en-gb/>> accessed 4 May 2020.

<sup>25</sup> Luminance (n 9).

<sup>26</sup> Hotdocs 'Reduce Compliance Risk and Save Time with Document Automation' (*AbacusNext International Ltd.*, 2020) <[www.hotdocs.com/](http://www.hotdocs.com/)> accessed 4 May 2020.

## Analysing the Traditional Roles of Lawyers

pandemic, court hearings and decisions in Singapore have moved towards teleconferencing. While teleconferencing is not a new technology per se, the scaling of such a technology to be able to hold stable teleconference hearings involving several parties at a time requires a combination of modern-day technological hardware and software infrastructure.

While in some cases technology can be used to generate work products, the types of problems which lawyers are meant to resolve still requires a human in the loop for the most part to assist with strategy, problem-solving and drafting the actual work product. In some cases, the existence of new technology opens up the market to allow that 'human-in-the-loop' to be a non-lawyer. This is the case of DIY legal technologies, where users can obtain legal solutions on their own via the DIY legal technology platform without having to interact with a lawyer. Examples of such DIY legal technology platforms in Singapore include DIY will-making services, such as WillMaker.<sup>27</sup>

### VI. CONCLUSION AND THE FUTURE

The crux of the role of a lawyer is being an advisor. Ultimately, this paper suggests that lawyers will not be displaced, for the current state of technology primarily serves to assist with helping lawyers and clients in their practice, such as to organise and review data.

The present state of legal technology is constrained to: (1) tools such as document automation, document review, document management, knowledge management, legal analytics and practice management software; and (2) platforms such as video-conferencing tools for virtual hearings. These tools allow lawyers to optimise their workflows, and assists them with their information provision roles such as via conducting more efficient document review. These tools will not displace the role of lawyers as they still require a lawyer-in-the-loop to provide advice on what to do with the information, or to structure the deal, or negotiate and represent the client. While technology has also evolved such that for DIY legal technologies, users can obtain legal solutions without

---

<sup>27</sup> Singapore Legal Advice, 'WillMaker' (*Singapore Legal Advice*, 2020) <<https://willmaker.com.sg/>> accessed 4 May 2020.

having to interact with a lawyer such as DIY will-making services, this creates further access to justice, and frees up lawyers to spend their billable hours on other high-value work. While in some cases, technology can be used to generate work products, the types of problems which lawyers are meant to resolve still requires a human in the loop for the most part to assist with strategy, problem-solving and drafting the actual work product. In some cases, the existence of new technology opens up the market to allow that 'human-in-the-loop' to be a non-lawyer.

Technology has not evolved to a state where the advice and representation roles of a lawyer can be displaced; rather, technology has created new modes for lawyers to carry out their traditional roles of connecting with clients and representing them. For instance, virtual hearings have risen to prominence in light of the recent COVID-19 crisis, and other online digital signature tools such as DocuSign have allowed the signing and closing of contracts online.

Beyond reshaping the modes of conducting traditional roles and provision of traditional services, technology also creates new roles for lawyers (e.g. document automation specialist, smart contract programmers) and new legal structures for legal technology collaborations (e.g. Rajah & Tann Asia x Rajah & Tann Technologies).

Technology has transformed, and not displaced, the role of lawyers. While technology may 'disrupt' the legal industry in the sense of forcing practitioners to use faster and more efficient tools to do their work and improve their workflows, the present state of technology will not 'displace' the lawyer; instead, it will shape the way and modes in which lawyers can carry out their roles of advising and representing clients.

. . . . .

