

# The Big Read: Rise of the machine — how technology is disrupting Singapore’s law firms

Singapore is playing catch up to embrace technological adoption in the legal and judicial world. Legal professionals say tech may also reduce the number of legal roles.

By [Alfred Chua](#)

SINGAPORE: Last year, a man-versus-machine showdown took place in the United States. 20 top corporate lawyers from across the country were pitted against an artificial intelligence (AI) software developed by legal technology firm LawGeex, where they reviewed and approved everyday contracts over a period of two months.

The results were astounding. The AI notched a 94 per cent accuracy rate, compared to the human lawyers’ 85 per cent. For one of the tasks — to review five non-disclosure agreements — the five human lawyers took more than 90 minutes.

The longest time taken by an individual lawyer was 156 minutes and the shortest 51 minutes. In contrast, the AI took a mere 26 seconds.

While AI is unlikely to replace human lawyers anytime soon, if at all, the outcome reflects how this cutting-edge technology can play an important role in the Bar.

Indeed, other forms of technology have already made their presence felt in Singapore’s legal sector.

For the past decade, local firm VanillaLaw’s stable of lawyers have called every part of the island their workplace.

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VanillaLaw’s founder and managing director Mark Goh likened the firm’s office at Tai Seng to that of a “taxi dispatch centre”, where his current group of six lawyers clock in in the morning, then head out to meet their clients and work remotely.

“The technology and tools are there, so why not?” Mr Goh said, referring to the firm’s move to digitise its operations, and create its own smart document assembly and management software which has resulted in time and cost savings.

As technology continues its relentless march forward, law firms big and small here are not spared from its impact — and the disruption it brings. Those which are reluctant to embrace new technology not only risk being outrun by their more tech-savvy competitors, but also losing clients who want more bang for the buck.

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Speaking at the opening of the legal year on Jan 7, Chief Justice Sundaresh Menon reiterated that technology has changed the way the legal sector works.

It is already transforming how and where disputes are resolved — and who should resolve them. It has also made available credible and cheaper alternatives for legal clients requiring general tasks, such as document review or project management, he pointed out.

“In tandem with this, a culture of ‘self-sourcing’ will likely take hold amongst members of the public,” said CJ Menon, adding that such trends will “impact the practice of law and the demand for legal services”.

This was not the first time that the Chief Justice had spoken about the technological wave sweeping the legal fraternity, but the urgency of the message has increased.

In his address at the opening of the legal year in 2016, Chief Justice Menon said that Singapore was among the “frontrunners in incorporating technology in the administration of justice”. He added that the effective implementation of newer technological advances means that the courts of the future will be very different from their present-day iterations.

A year later, Chief Justice Menon touched on the issue of disruption caused by technology. He cautioned then that while the legal practice has not experienced the same extent of disruption as other industries and professions, “the day of reckoning can no longer be put off, because dramatic developments will force us to rethink entire areas of practice”.

Last year, he again brought up the topic, stressing that “it is with some urgency that we must begin to imagine what (technological disruption) will mean for the practice of law”.

### **OTHERS MOVING AHEAD**

Around the world, legal and judicial systems are embracing technological changes.

For example, American courts have already used AI to “assess the risk of recidivism in criminal cases”, the Chief Justice said in his address earlier this month.

Chinese courts, meanwhile, are piloting an AI-assisted system, which can conduct deviation analysis for judges by comparing draft judgments with past precedents.

He also noted that the US and Canada have already seen the emergence of “legal technicians” who, though not legally trained, are able to provide services for less complex legal tasks with the help of technology.

A recent Forbes article highlighted how AI and machine learning are transforming the legal sector in the US, such as conducting research and reviewing contracts.

The article also cited how AI can help automate divorce proceedings, such as through Wevorce, an online solution that provides couples on the cusp of separation with self-guided modules.

Couples can define their “optimal outcomes” and the software — powered by AI — guides them through a series of modules before reaching the outcome.

In the United Kingdom, “tech innovation spaces” and legal tech start-ups have emerged to support the legal technology development, according to its law society.

### **SINGAPORE PLAYING CATCH-UP**

Here in Singapore, things have been moving slower in comparison, several observers and practitioners say.

Responding to queries, LawTech.Asia noted that while interest in technology among Singapore law firms is healthy, “this interest has also been relatively slower in translating to adoption or implementation”.

The online publication — which examines the role of technology, law and policy in South-east Asia — said that comparatively, some countries within the Asia-Pacific region, such as Australia and New Zealand, have seen increasing levels of interest translating into adoption of new technology.

Still, it noted:

*As the technological priorities of each country’s economy and legal profession can be different, the uptake rate of legal technology for each country may vary across the region.*

Ms Stefanie Lim, assistant director of legal productivity and innovation at the Law Society of Singapore (LawSoc), said technological initiatives are “very much on the radar” of law firms here.

The 2018 Legal Technology Survey, which the LawSoc commissioned, found that 72 per cent of decision makers here indicated that they saw the need to increase the adoption of legal technology.

But Ms Lim noted that as compared to the global legal sector, Singapore law firms are “still in the early stages of responding to this disruptive force”.

A check with several law firms in Singapore showed varying degrees of technological adoption.

Larger law firms said they have begun investing in technological initiatives such as automation, artificial intelligence and cloud computing.

Dentons Rodyk, for example, has co-developed an AI tool with a technology partner, to cut down the time needed to complete time-sensitive engagements.

WongPartnership acquired a document automation software in 2017, and has recently adopted document management technologies.

Rajah & Tann, meanwhile, created a legal tech subsidiary, called Rajah & Tann Technologies, which brings together lawyers and IT professionals to work on areas such as forensics and cybersecurity, and provides tech-enabled legal solutions.

But while technological adoption carries much promise for the larger firms, it is a different story for their smaller counterparts where some are having difficulty investing in new technologies, which can be costly at the outset.

Still, there have been some exceptions: VanillaLaw, for instance, launched in 2016 its own smart document assembly and management software, called VanillaLaw Docs. Mr Goh described it as “just a simple algorithm” that helps its clients — usually small and medium-sized enterprises — draft agreements for their businesses.

Mr Goh believes that the fear of teaming up with others, as well as established mindsets, are holding back smaller law firms from embracing technology.

“The conversation now is (akin to) putting the cart before the horse. You are talking about technological tools, but you are not talking about how these tools are going to interact with the collaborative partner,” Mr Goh said.

He noted that the cost of networking has gone down so low that there is no excuse for smaller law firms not to collaborate with one another.

*The only reason they are not collaborating is not cost, it is fear and mindset.*

Mr Goh, who started his law firm as a sole proprietor in 1994, said that technology is “meant for the smaller (firms) to collaborate”, but smaller companies are “too fearful” to exploit its benefits.

“(Instead) the bigger law firms are the ones investing. Once they create the investment, they control who has access to it, and they own the technology that was supposed to liberate the smaller law firms. This is the trend I am worried about now,” he said.

He added that smaller firms might find it difficult to adopt newer forms of technology since it may be harder for them to “visualise how it can help them”.

The traditional mindset of many lawyers, such as their preference for a precedent-based approach, and inertia on the firms' part are also hindering Singapore's legal sector from taking bold strides into the technological arena, said the observers and practitioners.

"There is always a psychological barrier to (take the) plunge," said Mr Amolat Singh of Amolat & Partners.

LawTech.Asia said the legal profession is often seen as "having a relatively more risk-averse, precedent-based approach" towards adopting technology.

*This may be due to the inherent nature of working in a precedent-based legal system.*

Apart from a general reluctance to make the technological leap, other factors include costs and a lack in specialised knowledge, said LawSoc's Ms Lim.

LawTech.Asia also cited the industry's highly-regulated nature as a factor, which may cause some practitioners to wonder about "the regulatory consequences of adopting new and untested technologies".

However, Mr Genesis Shen, director at Templars Law, pointed out that his firm would not adopt new technologies for their own sake.

"There is currently a lot of hype in the market for these snazzy technologies and untested start-ups, but we do not intend to jump on the bandwagon," he said.

He felt that the pace of technological adoption in Singapore's legal sector is "just right". Costs and "sufficient real-world results" must be factors which law firms need to look at before adopting new technology, he stressed.

Similarly, Denton Rodyk's innovation and knowledge management solutions manager Rocio Perez urged law firms to "avoid 'magical thinking' around technology, or undertake technology projects because they 'might be interesting'".

After all, unless a problem or opportunity — such as one that is related to technological adoption — is of "high-enough priority", an organisation will rarely want to endure the "growing pains that accompany change", he said.

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**THE RISKS OF INERTIA**

While law firms here should leverage technology in the best possible ways, LawTech.Asia noted that those that do not may risk being outgunned by their international competitors, many of whom have already made strides in technological adoption.

Moreover, as clients become increasingly sophisticated and knowledgeable about technology, “they will be more discerning about the law firms that are utilising technology to provide better services at lower cost”, LawTech.Asia said.

Potentially, the industry laggards could be disadvantaged and see their bottom lines suffer, it added.

In his 2019 speech, Chief Justice Menon warned that the competition to provide legal services will intensify in the near future, as technological trends start to make their impact felt.

Online dispute resolution systems, adopted by e-commerce platforms, are helping to resolve simple and low-value consumer disputes, he pointed out.

In December last year, OCBC Bank also rolled out a free online service for Singapore citizens and residents aged 21 and above to prepare their wills within 10 minutes on their computers, laptops or mobile devices.

“We shouldn’t be surprised if members of the public come increasingly to attempt to resolve at least some legal issues with the aid of technology, in the same way that many individuals today seek out medical information themselves using the Internet,” said the Chief Justice.

With ever-evolving technology here to stay, help is at hand to give Singapore firms which want to embrace it a leg-up.

There is a variety of financial schemes and grants available for firms to defray the costs of technological adoption, said the LawSoc.

In March 2017, the Ministry of Law, LawSoc, and the then-Spring Singapore launched a S\$2.8 million subsidy scheme Tech Start for Law as well as the SmartLaw Assist scheme to help defray costs for smaller firms.

Mr Jonathan Yuen, a partner at Rajah & Tann, said that more than grants and funding schemes, what is more critical is “a mindset change as to how technology can be harnessed and made a natural part of the workflow of lawyers”.

He added: “Ultimately, a mindset change needs to come from within — legal practitioners must themselves be convinced that partnering with, rather than resisting, technology and other types of structural changes will be beneficial in the long term.”

Templars Law's Mr Shen believes that market forces will sort themselves out. A new technology will eventually be widely available and adopted, and firms that take the lead in embracing cutting-edge technology will have "both the high risk and high reward of being the first-mover", he said.

### **CAN TECH RESOLVE CURRENT WOES?**

The role of technology will go some way in helping to change — or improve — work processes, said law firms and observers.

But the jury is still out on whether technology can help resolve some pressing issues plaguing Singapore's legal industry, such as a glut of law graduates and long working hours leading to burnout among young lawyers.

Chief Justice Menon said in his speech earlier this month that while competition will intensify, technology will "significantly reduce the hours required for certain types of legal work".

"The upshot is that law firms can expect to feel the pressure to operate on a leaner basis and they should start rethinking their traditional billing and cost structures as technology obviates certain forms of legal work, and in many other ways alters the face of legal practice," he added.

Lawyers and law firms interviewed agreed that new technologies can potentially help improve productivity in the sector.

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LawSoc's Ms Lim noted that technologies such as AI can help reduce lawyers' workload for routine tasks, "so that they can be freed up to deliver higher-level and bespoke legal services to their clients".

WMH Law Corporation managing director Wilbur Lim predicted that new technologies will take over the work traditionally performed by junior associates at a law firm.

"However, lawyers should not see such technologies as impediments. Rather, the aforesaid technologies could allow junior associates to take on more substantive legal work at the outset, which will greatly assist in their growth as a professional," he said.

Allen & Gledhill, meanwhile, said that the adoption of technology will "invariably reduce the number of traditional legal roles", but could give rise to new roles — and more varied opportunities — for law graduates.

A junior lawyer with two years' work experience, who declined to be named, felt that technology would go some way in changing her workflow. But she was worried that it "might end up even replacing the need to hire a junior lawyer altogether".

Indeed, some lawyers noted the risk of technology exacerbating the supply glut.

“When processes are streamlined, there would be less need for the big firms to hire multiple junior lawyers to go through the documents manually. The glut of lawyers is more likely to be resolved naturally by market forces,” said Mr Shen from Templars Law.

While technology may take over some of the tasks which lawyers perform now, the notion of a law firm staffed only with robots would likely remain a fantasy.

Amid the rise of technology, law firm structures will “become a lot flatter”. However, “top quality legal brains will continue to command top dollar”, said TSMP Law Corporation joint managing partner Stefanie Yuen Thio. She pointed out:

*We develop very close client relationships and handle difficult cases. These are skills that would be hard for technology to replace.*

Mr Goh from VanillaLaw drew a parallel with autonomous vehicles: When such vehicles came out in the market, there was concern that it would replace drivers totally, but the reality is that there is still the need for human judgment.

Similarly, in the legal profession, the “explicit knowledge” of lawyering — which can be expressed in words and numbers — is an area that can be automated or replaced by technology. However, the “tacit knowledge” — gained from personal experience — will still require a human being, he said.

LawSoc’s Ms Lim noted that it is a “valid concern” that machines could take over low-level tasks performed by lawyers. But the exercise of professional judgment, for instance, still requires humans, she said.

“The ability of machines to take over these domains is still uncertain and, in any event, a long way off,” she added.

*Instead of a ‘machine-vs-human’ perspective, the legal profession should be looking at a ‘lawyer plus machine’ value proposition, (like) how machines can augment lawyers to deliver better legal services to their clients.’*

<https://www.channelnewsasia.com/news/singapore/lawyers-law-sector-disrupted-technology-artificial-intelligence-11145088>