

**LAW SCHOOLS:
A TIME OF NEW BURDENS AND NEW BEGINNINGS**

James P White Lecture

Indiana University Robert H McKinney School of Law, 30 October 2018

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I. The aims of a law school

1. I am deeply honoured to have been invited to deliver this edition of the James White Lecture. This stage has been graced by many distinguished speakers including Chief Justice John Roberts, the Right Honourable Beverley McLachlin PC, former Chief Justice of the Supreme Court of Canada, and Justice Ruth Bader Ginsburg, who so very kindly suggested that I deliver this lecture. It is an esteemed list and I am humbled to be counted among their number.

2. Each Lecture in this series is delivered on the subject of the legal profession and legal education. Today, my subject lies at the intersection of the two. I want to make the urgent case for the reform of the current model of legal education that is widely adopted throughout the common law world

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because three powerful overlapping forces have created a “perfect storm” that will irrevocably alter the practice of law.¹ The first is globalisation, which has changed the *where* of legal practice by breaking down our jurisdictional silos. The second is technology, which has not only changed *how* legal services are delivered, but *what* they are, and *who* will deliver them. And third is the influence of the market, whose values increasingly trump the ideals of the profession and threaten to change the “*why*” of legal practice.

3. But, one might ask, what have all these changes to legal *practice* to do with legal *education*? After all, the law, and specifically the common law, is a body of principles derived from the accretion of cases over time. Given that fact, one might well conclude that the best way to prepare students for a career in the law is simply to teach them what the law is by reference to decided cases. This way of thinking about the law and legal education was espoused by the former dean of Harvard Law School, Christopher Langdell, who maintained that a “true lawyer” is one whose grasp of legal principles was so utter and complete that he could “apply them with constant facility and certainty to the ever-tangled skein of human affairs”.²

4. Langdell’s conception of the law as a purely inductive discipline has come to define how law is taught around the common law world. It has many merits, chief among which are its academic rigour and the way it promotes the development of an analytical mind. But I suggest two developments have

spurred the need to reimagine how we teach law. First, technology has so impacted the “tangled skein of human affairs” that Langdell referred to such that the frameworks around which the legal profession has been organised are set to be upended. Second, and relatedly, the profound changes to legal practice have made it imperative that our law schools acknowledge a responsibility which extends beyond preparing our students to be excellent legal thinkers to equipping them with the skills to become consummate professionals and valuable citizens. I submit to you that a system of education that seeks only to root its students in the corpus of the law without imparting a vital understanding of the rich context within which it operates, the realities of its application, and the essential nature of its calling would be incomplete. If we do not attend to this, our students will graduate with neither the skills required for *modern* legal practice nor a solid grounding in the values that will serve as the foundation for a life of meaningful engagement with the law. This would be to the detriment not only of our students, but also the societies that they serve. Of course, some of these challenges are new; while others like the inculcation of values are as old as education itself. But it is the coming together of the influences I have referred to, that presents a new and altogether different type of problem.

5. I believe that the American experience with legal education validates the view that legal education must be responsive to the realities of legal practice. While the Langdellian model has remained popular, American law

schools have by slow degrees come to accept that students must be taught not only how to *think* like a lawyer but to *act* as one. As early as the 1890s, the American Bar Association (“ABA”) observed that law schools needed to be brought into “a closer sympathy and contact with the profession”.³ In the 1930s, proponents of the Legal Realist movement stressed that the law had to be understood against “the hurly-burly of actual practice”.⁴ And thus, by the 1970s, nearly half of American law schools offered clinical programmes.⁵

6. However, it is only in more modern times that the idea that legal education must possess a real practical edge has taken root. Recent decades have seen the release of several comprehensive reports aimed at the reform of legal education, each expressing in emphatic terms the view that law schools cannot be content with teaching only legal doctrines. A prime example is the oft-cited Carnegie Report, which speaks of a holistic legal education as comprising “three apprenticeships”: one of *cognition*, focusing on legal knowledge; another of *performance*, focusing on practical skills; and the last, of *values*, focusing on the ethics and social function of the profession.⁶

7. Three roads lie ahead. First, law schools can ignore the changes to the practice of law; second, they can tinker at the edges; or third, they can undertake the brave task of fundamentally reimagining how and what they teach. I suggest to you that the first two options are untenable. Doing nothing would be irresponsible while a conservative approach will not be equal to meet

the challenges of this time of monumental change. The new burdens⁷ that have been placed on our law schools demand that we chart new beginnings. This is the third and, in my view, *only* viable option we have.

8. I hope to develop these ideas in three parts. I will first provide a brief description of the evolution of legal education in my country to explain why we in Singapore hold the conviction that our system of legal education must be practical and must adapt to the needs of the times. I will then explore the trends reshaping legal practice today before closing with some thoughts on how we might begin on the journey towards reform.

II. Legal education in Singapore

9. Let me preface my discussion on the history of legal education in Singapore with two contextual observations on our model of legal education: the first relates to its general structure and the second to its underlying philosophy. These have both remained largely unchanged throughout much of our modern history.

(a) First, in terms of structure, law in Singapore has been offered primarily as an undergraduate course of study to be completed over four years.⁸ Students who go abroad may complete their undergraduate studies in a shorter period of time, but when they return, they are required to undergo a year-long programme which seeks to adapt them to the Singapore legal system. To obtain

professional qualification, every law graduate must then complete two further components spanning a year in total – the first being a centrally-administered bar course and examination with a particular practical orientation, and the second being a period of vocational training within a law firm.⁹

(b) Second, we subscribe to the philosophy that it is important not only to develop our students to be academically excellent but also to be practically skilled and professionally sound. This is a conclusion that we reached by necessity rather than by choice. To put it bluntly, we did not have the luxury of time to debate the aims of a law school.

10. Let me explain the latter point by providing a brief history of legal education in Singapore. Singapore was founded as a British colony in the nineteenth century but, in 1963, colonial rule came to an end when we joined the Federation of Malaya as a self-governing state. With a tiny land area, a relatively small population and no natural resources to speak of, many believed that our inclusion within the Federation was essential for our survival.¹⁰ But deep divisions between the local government in Singapore and the federal government in Malaysia led to a swift breakdown of the union and a traumatic exit from the Federation on 9 August 1965. The daunting task of nation-building then loomed large.

11. In those turbulent times, the law assumed signal importance and

lawyers became, in the crucible of independence, the “legal architects” of our early nationhood.¹¹ The task for the law school then was to equip aspiring lawyers with the right tools to contribute to Singapore’s survival and growth. It had to train commercial lawyers who could help Singapore achieve economic progress; constitutional lawyers who could establish a system of parliamentary democracy; and international lawyers who could carry our voice onto the international stage.¹² And so it was that in 1966, there came a “decided shift” in the curriculum of the Faculty of Law at the then University of Malaya, the only law school at the time.¹³ Before independence, the curriculum had been relatively theoretical and featured a “heavy emphasis on context and history”.¹⁴ This changed swiftly, as the curriculum was overhauled to meet the urgent needs of a young nation. General introductory subjects in the first year of study were replaced with those having “heavy substantive content” such as contract and torts.¹⁵ Other substantive subjects like land law, public law, and commercial law were also made compulsory. This trend continued in the 1970s, as specialist courses covering the laws of shipping, tax, insurance and banking began making their way into the curriculum.¹⁶

12. Legal education in Singapore had come of age though it would continue to mature over the following decades. In the 1980s, a report produced after a major review of the law school curriculum emphasised the need for interdisciplinary learning and, as a consequence, the study of non-law subjects such as accounting and public administration became

compulsory to broaden the range of a student's learning.¹⁷ As we approached the turn of the millennium, the curriculum became more international in character, with more modules in comparative law being introduced to meet the needs of an interconnected world.¹⁸ And in the last decade, there has been a greater emphasis on specialisation. The Singapore Management University School of Law was founded in 2007 with a special orientation towards corporate and commercial law,¹⁹ while the law school at the Singapore University of Social Sciences opened its doors last year to students with a passion for criminal and family practice.²⁰

13. This, in a nutshell, is the journey of legal education in Singapore. Although our pioneers always believed that education had to have a practical purpose, they did not denigrate the study of theory. Rather, their point was that neither theory nor practice alone would suffice. As Professor LA Sheridan, the first dean of the law faculty at the University of Malaya put it, "just as no one but an intuitive genius can be a successful practical man without a sound grasp of theory, so there can be no valid theorizing segregated from the acid test of practical application".²¹ This belief has shaped the approach we have taken to legal education in Singapore since independence.

III. New burdens

14. The Singapore experience has been quite different from yours, but I believe that we are gathered today on a common plane where we see the

aims of a law school extending beyond the shaping of legal minds to the moulding of complete legal professionals. If this is accepted, it follows that law schools must evolve in tandem with the profession. As I outlined in my opening remarks, I suggest there are three trends which are placing the legal profession under unprecedented strain today. These are globalisation, technology, and the growing commercialisation of practice.

A. Globalisation

15. Let me begin with globalisation. The endeavour to integrate global markets is not a new phenomenon,²² but it really took off in the mid-twentieth century after two World Wars led to the entire restructuring of the international order, and as empires fell and decolonisation swept the globe.²³ In the aftermath, many newly-independent states agitated for a world order that would allow them greater access to global markets and foreign investment,²⁴ while the established economies sought to take advantage of the growing opportunities abroad. With national interests broadly aligned towards the creation of a post-war world order that would facilitate cross-border trade and investment, the world flattened considerably by the end of the millennium. The incredible proliferation of bilateral investment treaties (“BITs”) speaks to this fact. At the start of the 1990s, there were only about 900 BITs in force, but a decade later, this number had grown to almost 3,000.²⁵

16. The sense today is that technology has supercharged globalisation.

As a report by the McKinsey Global Institute has put it, this is the era of “**digital globalization**”²⁶ [emphasis added] where “[e]ven the smallest enterprises can be born global”²⁷ because a diverse set of public Internet platforms has emerged “to connect anyone, anywhere”.²⁸ Already, e-commerce accounts for 12% of the global trade in goods; and 86% of tech-based start-ups surveyed in the McKinsey report said that they engaged in some type of cross-border activity.²⁹ Transacting across borders has unquestionably become an ordinary incident of commercial life.

17. This has profoundly affected the practice of law. Consider, for example, the recently implemented General Data Protection Regulation. This is a piece of European Union (“EU”) legislation but it affects businesses regardless of where they may be located as long as they collect data on people within the EU, or share data or sell products within the EU.³⁰ In the past, it would have been unthinkable for a law to have such a wide reach, but this is not unusual today, and is simply a consequence of the fact that businesses tend to be organised transnationally. In this environment, in-house counsel and corporate advisors must constantly acquire new skills and domains of knowledge to function competently.³¹

18. The same applies for commercial dispute resolution lawyers. Conventional litigation can often give rise to “jurisdictional problems”, forum shopping and a “complex web of other tactical manoeuvres” that litigators

must advise on.³² Aside from this, international commercial arbitration has arguably surpassed traditional litigation to become the primary mode of resolving cross-border disputes, and this has meant that disputes are increasingly heard in jurisdictions other than where the parties are located.³³ Further, with the rise of treaty arbitration, the modern commercial litigator will often need a working knowledge of public international law to be able to competently protect the interests of her clients.³⁴

19. At the same time, judiciaries are collaborating to meet the challenge of providing a sound and stable adjudicative framework that can support transnational commerce. In recent years, we have seen the emergence of international commercial courts which offer a specialist bench for the resolution of complex commercial disputes, often with limited, if any, restrictions on rights of audience. To facilitate multi-jurisdictional proceedings, such courts also do increasingly engage in court-to-court communications and even conduct joint hearings.³⁵ What follows from all this is that familiarity with domestic laws and the processes of the local courthouse will no longer be sufficient.

20. But the impact of globalisation extends beyond the practice of commercial law. Lawyers in almost every field are growing accustomed to recognising international elements in their work. Take family law, for example. What some practitioners might consider to be a quintessentially jurisdiction-

bound practice is no longer that. Transnational marriages are now commonplace and the breakdown of transnational families can lead to difficult issues such as those relating to child relocation and abduction.³⁶

B. Technology

21. I turn next to technology. I have already described how it bears upon the practice of law through the medium of globalisation but, on its own, it is having as profound, if not even more fundamental, an impact on the law. We can sense this from the fact that even before some of us have come to grips with email, Powerpoint, and research databases, we are already talking about data analytics, cloud computing, blockchain, predictive technology, and artificial intelligence (“AI”). What this tells us is that the changes are not only dramatic, they are also taking place ever more quickly.

22. But how are these technological developments changing legal practice? To answer that, I think it is important to start by recalling the traditional legal service delivery model, which envisages that:

(a) law firms will provide a *bespoke end-to-end service* for their clients on *any* professional engagement;

(b) such services will typically be performed by *teams of lawyers* who rely only peripherally on paralegals and other non-legal staff for administrative support; and

(c) lawyers will usually charge for their services on a *time-cost basis*.

23. In short, under the traditional model, law firms get to dictate to their clients exactly *what*, by *whom* and *how* legal services will be delivered. But each of these three aspects of the traditional model is challenged by technology.

24. First, technology enables legal work to be commoditised through automation. This has had a dramatic effect on how legal services are consumed. As one report states, the discerning clients of today are showing “a growing willingness ... to disaggregate or unbundle the services they seek” so that discrete tasks which might previously have been performed by “over-qualified” lawyers are turned over to cheaper technologically-enabled solutions.³⁷ In other words, it has become a “buyer’s” market.³⁸

25. This has led to the rise of three trends:

(a) First, law firms are increasingly outsourcing work that they might previously have performed themselves. This often includes routine tasks such as document review or contract management which the legal process outsourcing or “LPO” industry can perform more quickly and cost-efficiently with the help of technology. Quislex, for example, is a leading LPO provider that maintains a dedicated

“Legal Technology Group” whose sole function is to utilise technological tools to maximise value for their clients.³⁹

(b) Second, legal work is increasingly being “insourced” by discerning corporate clients. A report issued by Thomson Reuters earlier this year revealed that the top two priorities of corporate law departments in America are controlling the costs of outside counsel and using technology to simplify their own work processes.⁴⁰ Driven by these priorities, many corporate law departments already adopt what the report has called “breakthrough” technologies such as contract and project management systems, and it is simply a matter of time before they begin to embrace even more “transformational” technologies such as tools with algorithmic and predictive functions.⁴¹ To provide one particularly stark example, JPMorgan revealed last year that it was using AI to cut down the time spent annually on a range of laborious tasks, including legal work, from more than 300,000 *hours* to a mere matter of *seconds*.⁴² This is staggering and it illustrates the kind of revolutionary impact that technology can have on the way we work.

(c) Third, we are seeing the emergence of a new breed of non-lawyer legal service providers. They may take different forms but it is their close identification with technology that has enabled them to establish a strong foothold in the legal marketplace despite *not* being

managed by actual lawyers. The DoNotPay chatbot is one example. It is an automated service provider that started off by walking lay people through the process of appealing against their parking fines. Following its huge popularity, and considerable success, it is now being developed to deal with more complex legal processes like marriages, divorces and bankruptcies.⁴³ Joshua Browder was only 18 when he created DoNotPay and, at the time, he was studying not law but economics and computer science. In an interview he gave to the Guardian newspaper last year, he said that “[m]any lawyers are charging hundreds of pounds for copying and pasting documents – and the public knows it.”⁴⁴ This may be galling but it has a kernel of truth. And it is what has spurred other like-minded technopreneurs, who have brought services like LegalZoom and Rocket Lawyer to the market, to use technology to automate many routine legal services.

26. I turn to the second aspect, which concerns the traditional staffing model of law firms. Law firms have traditionally assumed a “pyramid” structure in which a small group of senior partners sit atop a broad base of junior lawyers. But law firms can no longer rely on legal expertise alone. The ubiquity and centrality of technology means that it has become embedded in almost every facet of our legal system and familiarity with it will be paramount. Linklaters, for example, uses AI to check dozens of regulatory registers for

client names in a matter of hours; this is a task that used to be done by a large team of junior lawyers and took so much longer.⁴⁵ And even higher-value, more deliberative work that is traditionally the preserve of senior lawyers will not be left untouched. Computers can now predict a client's chances of winning a case,⁴⁶ and AI can carry out legal research and assess the quality of legal arguments.⁴⁷ Even courts and adjudicators will not be spared as algorithms that assist judges in the decision-making process⁴⁸ and online dispute resolution platforms become commonplace.⁴⁹

27. The upshot is that law firms will need professionals with specialised technological expertise, and not *just* lawyers. As noted in a Boston Consulting Group report, technological skills will soon become “the coin of the realm”.⁵⁰ Law firms can therefore no longer expect to operate sustainably on a “pyramid” structure and will have to move towards new models in which less reliance is placed on junior associates and more on a wider trunk of mid-level professionals comprising lawyers, legal technologists, project managers, and technology managers with interdisciplinary skills.⁵¹

28. The emergence of a host of alternative legal service providers or “ALSPs” gives credence to this. In broad terms, ALSPs are entities that seek to deliver legal services in a manner that differs from the traditional law firm. They usually do so by using technology to unbundle legal work and relying on flexible and multidisciplinary teams that are able to integrate business,

technology and the law.⁵² To provide just one example, Axiom, a leading ALSP, hires more than 2,000 lawyers, process engineers, data analysts and technologists. Axiom was able to draw on the synergies within this diverse pool of talent to launch a new “state-of-the-art technology solution” earlier this year that uses AI to speed up the contract review process for corporate legal departments.⁵³

29. Finally, I come to the third aspect: the traditional remuneration model. It is becoming increasingly difficult for law firms to record the performance of routine work by junior lawyers in units of time and to pass this on to the client on a billable hour basis. Today, many corporate legal departments impose “blunt rules” to save costs for their clients. One example is a ban on first and second year lawyers working on particular matters because of the assumption that they are not worth the cost.⁵⁴ We are thus seeing the “death of the traditional billable hour” pricing model and the emergence of new alternative fee arrangements such as fixed-price or cost-plus models.⁵⁵

C. Commercialisation

30. I turn then to the third of the trends I have mentioned, namely the commercialisation of the law. Fears that the practice of law is turning into little more than a business have long been around.⁵⁶ But as early as 25 years ago, Rayman Solomon, former dean of the law school at Rutgers-Camden, suggested that “[w]hat is unique about the present is that concern over

commercialism has become a crisis”.⁵⁷

31. Since then, the pace at which the trend of commercialisation has affected legal practice has surely accelerated. The strain of market pressure on law firms has become so palpable that many have ended up “mirroring the behaviours of market-listed shareholder value-driven firms” in order to survive.⁵⁸ A report released this year on the state of the American legal market observed that overall growth in the demand for law firm services has been “essentially flat to negative in every year” since the Global Financial Crisis.⁵⁹ The supply side looks equally challenging. I mentioned the rise of ALSPs and counted within their number are the Big Four accounting firms which reportedly spend more on technology and training each year than the revenue of any law firm.⁶⁰ And they are taking significant strides that will see them compete for large segments of the legal services pie.

32. Just a few months ago, for example, Ernst & Young announced that it had agreed to acquire Riverview Law, a well-known ALSP based in the United Kingdom, to “underline [its] position as a leading disruptor of legal services”.⁶¹ And some months before that, it was reported that the Swiss branch of PricewaterhouseCoopers is building its own proprietary technology to eventually outsource “entire legal departments” to corporations.⁶²

33. This is the new legal economy, and many law firms will not survive. According to an industry expert in the UK, a third of the top 300 law firms there

will disappear by 2022.⁶³ The result of this mounting market pressure on law firms is that the focus on short-term profits and the bottom line will continue to intensify,⁶⁴ with negative repercussions that can be expected to cascade into every aspect of law firm practice. Lawyers will find that their worth is measured by the length of their timesheets; that there are fewer opportunities for proper and sustained mentoring; and that difficult ethical challenges will arise in a culture that prioritises profit over service. Eventually, a large number will grow disillusioned and leave the profession exhausted, unhappy, and quite possibly in poor health.⁶⁵

34. “Money”, according to one law review article, seems to be “at the root of virtually everything that lawyers don’t like about their profession”; yet there is a growing sense that it is “not just incidental to ... practice, but at its core”.⁶⁶ This is deeply troubling. After all, lawyers are not first and foremost businesspeople. Instead, we are *professionals* who, in the words of Roscoe Pound, are devoted to the pursuit of “a learned art as a common calling in the spirit of public service”.⁶⁷ But the confluence of forces that confront us must cause us to think about the very nature of our identity. The preamble to the ABA’s Model Rules of Professional Conduct describes the lawyer as a “public citizen” with a “special responsibility for the quality of justice”.⁶⁸ Is this still true today, and should it continue to be? If we think so, we need to urgently re-centre the profession towards its core values of excellence, honour, and public service.

D. An urgent challenge

35. These three forces of globalisation, technology, and commercialisation have transformed the face of legal practice. If we take a moment to consider the overall vista, what greets us is something unfamiliar. In this radically altered landscape, law schools cannot continue leading their students down the same corridors using the old handrails. I said at the start that the case for reform was urgent; and I suggest that in some jurisdictions at least, we are no longer at the point where the wave has yet to break - instead, we are already engulfed by it.

36. I return here to my opening remarks where I laid down the case for legal education to be responsive to the realities of legal practice. In the light of the trends that I have been discussing, it is imperative that law schools assess whether they are adequately preparing their students with the right skills and values required for modern practice. A failure on their part to do so will have serious implications not only for the future of the law students whom they teach, but also for society as a whole.

IV. New beginnings

37. I hope that it is sufficiently clear that we *need* to reform our current model of legal education. But this gives rise to two more questions: Where are we trying to get to? And how will we get there? Those are far more difficult questions. In the 1970s, two design theorists, Horst Rittel and Melvin Webber,

coined the expression “wicked problems” to describe conundrums that cannot readily be resolved by conventional straight-line thinking or single-actor one-shot solutions. Wicked problems arise from numerous causes, involve many interrelated and moving parts, engage multiple and diverse interests, have no right or wrong answers, and abide by a “no stopping rule” in the sense that one can never truly be said to have tamed the problem.⁶⁹ As Professor Judith Wegner, formerly the dean of the University of North Carolina School of Law, has argued, the reform of legal education is very much a “wicked” problem;⁷⁰ it is complex, dynamic, and lends itself to no easy solutions.

38. It would therefore be not only ambitious, but quixotic, for me to prescribe a detailed roadmap for how we should reform our legal education models. What I hope to do instead is to suggest a sense of how we might *begin*. In my view, there are three things that will be essential on our quest.

A. A unity of purpose

39. The first is a sense of unity among all of us who may be concerned in some way with the education of our law students and have a stake in charting its future direction. If legal education is about to be caught in a perfect storm, a Herculean effort will be required to steer us to safe harbour and law schools simply *cannot* do this alone. They will need the help of the law firms, senior lawyers, courts, regulators, funders and policymakers. The problem of legal education is one which affects all of us in the law, and nothing less than a

concerted effort will do. Our new burdens call for many bearers.

40. I want to explain this by highlighting some of the deep *structural* and *policy* issues that the three trends I have been discussing are causing us to confront in almost every area of the law, whether it be in terms of its content, craft, consumption, credibility or even character. These are complex questions that bear upon the superstructure of our legal system and therefore society as a whole. While law schools are integral to their resolution and must strive to bridge the gulf between what and how we teach our students and what will be expected of them when they enter the practicing profession, I reiterate that law schools cannot possibly be expected to answer these questions on their own.

41. I begin with the *content* of the law. Modern technology is shaping every aspect of daily life and we can expect to see the emergence of new areas of law and substantive legal principles in response to this fact. For example, there are already live discussions about how tortious liability will be apportioned where the tortfeasor is a machine.⁷¹ We need look no further than driver-less cars as an illustration of this very real possibility. And the issue potentially becomes even thornier when we consider that some machines are already capable of self-learning and acting in ways that were not pre-determined by their human creators. In like manner, principles of contract law will have to be brought up to date to deal with blockchain-enabled smart

contracts.⁷² These contracts are already gaining popularity because their ability to self-execute under pre-determined circumstances saves transaction costs for businesses.⁷³ And to drive home just how radically the law has already changed because of technology, it bears mention that Bitcoin and Ethereum—two forms of cryptocurrency that rely on blockchain technology—are already the subject of ongoing litigation in the Singapore International Commercial Court.⁷⁴

42. Beyond triggering the development of new legal principles, technology may also potentially alter *how* the common law develops in the future. The proliferation of online dispute resolution technologies will allow a vast swathe of less complex disputes to be resolved in an entirely automated manner, more cheaply, quickly, and conveniently than can be done in the court. Indeed, it is already the means by which approximately 60 million eBay disputes are resolved each year.⁷⁵ However, every diverted case is a lost opportunity for the development of the law. Cases are grist for the mill of the common law, and without them, the law may ossify.⁷⁶ This is no fanciful concern. A similar warning was sounded by Lord Thomas of Cwmgiedd, former Lord Chief Justice of England and Wales, who worried about the stultification of the development of the common law in the face of the rise of arbitration, which has caused a significant decrease in the caseload of the courts.⁷⁷

43. Second, I turn to the *craft* of a lawyer. Litigation lawyers typically

develop their courtroom craft and oral advocacy skills on a diet of low-value claims in their fledgling years. But that well will run dry with the arrival of online dispute resolution technologies that will remove the need for legal representation, or even recourse to the courts, for low value claims. And this is a problem that goes beyond court-craft. With tasks like contract review, contract drafting, discovery and a host of others along the legal supply chain liable to being farmed out of law firms, how will young lawyers cut their teeth and thereby acquire the range of skills and the development of judgment that we have for so long closely identified as being essential for a lawyer?

44. Third, the new means of *consumption* of legal services will give rise to important regulatory questions. This is particularly true for automated *non-lawyer* legal service providers. Such service providers typically avoid legal challenges by being careful not to stray into the realm of providing legal advice. They therefore confine themselves mainly to the provision of generic legal information, the performance of legal research, or the generation of standard template forms. The DoNotPay chatbot which I mentioned earlier is one such example, as are a host of other mobile “apps” that help users navigate routine legal processes. But as one study has noted, “[a]t what point does the technological assistance move from information to advice”?⁷⁸ This is a very difficult line to draw. By law, legal practice is still the exclusive preserve of lawyers, in exchange for which lawyers have accepted strict regulations on qualifications and discipline. But this compact is coming under increasing

strain.⁷⁹ And if further liberalisation is contemplated, there are difficult questions that we will have to grapple with. Are we content, for example, to let automated service providers generate legal advice through some unknown “black box” algorithm? Or should we seek to impose “explainability standards” on these machines before allowing them to be used?

45. This leads me to my fourth point, which has to do with the *credibility* of the law. Concerns of this nature are perhaps most stark in the context of the criminal justice system where some courts now rely on machine-generated reports on such matters as the risk of recidivism in sentencing offenders. But the opacity of these machines—how they reason, what factors they consider and how they weigh them—can be a source of great unease, and fairly so. The New York Times asks the question at the back of all our minds: “Why are we allowing a computer program, into which no one in the criminal justice system has any insight, to play a role in sending a man to prison?” And concerns deepen further when we pause to reflect on the fact that many of these computer systems, whose algorithms are based on the historical data we provide them, may simply be “parroting back to us our own biases”.⁸⁰ Researchers with IBM have noted that many AI systems are being developed with data containing “implicit racial, gender, or ideological biases”,⁸¹ and an unchecked use of such systems and algorithms in decision-making processes runs the grave and real risk of perpetuating injustice. If we do not ourselves have the capacity to understand the inner logic of these algorithms, how can

we even begin to make sense of the potential dangers they present? More fundamentally, how do we as a profession uphold the rule of law when we are unable to fathom how certain decisions have been arrived at? There are few things more insidious to our societies than a system of justice that determines the rights of its members not merely mechanistically, but without transparency.

46. Finally, the *character* of our profession is also undergoing profound change. I make two points here.

(a) First, globalisation and technology will make it more difficult for us to hold on to the professional values that are already being eroded by the market. Globalisation facilitates not only the movement of businesses but of services. The lawyers of today are freer, than at any other time in history, to offer their services across national borders.⁸² This will exacerbate the difficulties of regulation that I have already touched on; but in addition, it will make the task of cultivating a common set of ethics and values more difficult. As a growing pool of foreign and non-legal actors make serious inroads into the legal services sector of a jurisdiction, do we expect them to identify with the values and ideals of the legal profession as these are applied and upheld in that jurisdiction? If so, how will we secure this? Unless we are able to, there is a plausible danger that our profession might soon

be one where the notion of shared values and a common calling ceases to exist.

(b) Second, technology and the commercialisation of legal practice have led to the very role and identity of a lawyer being contested. Clients are beginning to view lawyers less as trusted advisors and more as *ad hoc* resources who can be dispensed with when cheaper alternatives present themselves.⁸³ As one commentator has suggested, “[c]onsumers now decide what’s legal and when a lawyer is required”.⁸⁴ This raises fundamental questions as to whether we have been reduced to mere service providers. Are we less of an honourable profession because of that? Have we ceased to be “architects and regulators of social relations” and become just another unit of labour?⁸⁵

47. Clearly, there are no easy answers to these questions. And in the attempt to respond to them, we will need broad-based participation and dialogue. Isolated solutions offered by pockets of innovators provide us, at best, with glimpses of a potential solution; or partial answers to a wider problem. We urgently need collaboration among all the stakeholders to fashion durable, coordinated, and effective responses to the entirety of the problem.

B. *The power of imagination*

48. The second thing that we need on our journey is a real sense of imagination. This has, unfortunately, been lacking. Reforms undertaken in our law schools have tended to be piecemeal and modest and achieved little more than “results on the margins”.⁸⁶ Professor Benjamin Spencer, the Justice Thurgood Marshall Distinguished Professor of Law at the University of Virginia School of Law, has made this observation:⁸⁷

“... [L]aw school, as it exists today, is an artifact of its past, with a structure and tradition that is rooted in history more so than being founded on rational design. As a result, although many innovations characterize the modern approach to law school, these adjustments tend to be more superstructure than substitute, supplementing traditional law school education rather than supplanting it.”

49. One can see examples of this abound in law schools around the world:

(a) For example, in confronting the challenge of globalisation, what many law schools have done is to bolt on courses in international and comparative law to their curricula. But there is usually no more than a smattering of such courses which tend, moreover, to be offered only on an elective basis.⁸⁸ This practice has been criticised for creating only “the façade of incorporating international law or foreign law without truly internationalising the curriculum”.⁸⁹

(b) As for the challenge of technology, a recent Thomson Reuters survey found a “significant disconnect” between the number of law schools that are “already incorporating” technology into their curricula and the number that are merely “inclined” to do so. And by far the most commonly cited reason for why these law schools might do so is because they wish to “expose students to the same tools practicing attorneys use”.⁹⁰ But teaching students how to use a particular platform just to familiarise them with it is merely to “reiterate the knowledge-based learning that law schools have often relied on”.⁹¹ More than just teaching students how to become literate in technology, law schools need to equip students with the skills that will enable them to streamline delivery processes and design solutions to legal problems; or, as I said recently, to reinvent and not just turn the wheel of justice.⁹² Unfortunately, the sense is that “many law schools are not yet convinced that this kind of practical non-theoretical education is their responsibility”.⁹³

(c) And finally, on the subject of professional values, while many law schools require their students to take a mandatory course in professional ethics, this is often limited only to a simple instruction of the ABA’s Model Rules, because that is all that is needed for accreditation.⁹⁴ This kind of rules-based teaching is hardly capable

of engaging, in the words of the Carnegie Report, “the moral imagination” of students as they enter professional practice.⁹⁵

50. Present efforts evidently fall far short of what is required. As I said at the beginning of my address, an attitude of conservatism underwhelms at a time of great change. I agree with Professor Spencer that what law schools need now is a “fundamental rethinking” of how and what they teach as opposed to “accretive reform”;⁹⁶ that they need to look *forward* and think imaginatively about their own “rational design” rather than constantly *backward* to find assurance in their old models.

51. Let me provide an example of what I mean. Four years ago, Professor Daniel Martin Katz wrote an essay in which he hypothesised what the law school of the future could look like. He came up with what he termed the “MIT School of Law”.⁹⁷ Unlike most law schools which operate as liberal arts colleges, he said that this hypothetical school would be an institution dedicated to offering a “polytechnic legal education” – one that was centred at the intersection of law, technology, design and delivery. Professor Katz then went on to flesh out several innovative features of his hypothetical law school. For example, in designing a “blended” curriculum from scratch, he pictured that it would include seven compulsory “intensity tracks” such as “Law, Technology and Policy” and “Law and Entrepreneurship”, with each track comprising three intensive courses to deepen a student’s learning in each of

those areas. This hypothetical school would also seek to leverage on Massive Open Online Course platforms to provide as many as 50 free, optional, and intensive courses “taught at strategic points within the logic of the overall curriculum”.⁹⁸ And these courses would be available not only to students interested in expanding their skills, but also to alumni. It was also envisaged that this school would have an admissions process that properly valued a candidate’s prior training in subjects like computer science, engineering and applied mathematics.⁹⁹

52. *That* is an illustration of what it means to work off a blank slate; and to think imaginatively about how we can secure the future of legal education. It goes beyond just thinking about how we can tweak the existing curriculum to entertaining novel ideas about how we can radically redesign not only the *content* of what is taught, but also the modalities of instruction, and the entire structure and design of law schools as a whole. I am not saying that this is the paradigm to which all law schools should aspire; only that it illustrates a whole other way of thinking about the issue. I should add that, two years ago, Professor Katz launched the Law Lab at the Chicago Kent College of Law which promises to teach students not only about the foundational skills of lawyering, but also about the technological advancements and efficient business processes that are shaping the practice of law.¹⁰⁰

53. It is my hope that we in Singapore might indeed come to work off a

fresh canvass to paint the future of our legal education. The relatively small size of our community might allow us to approach these issues in a more integrated way. For instance, to help us understand the true extent of the technological challenge, one could envision the establishment of a task force comprising not only members of the academia, but also external stakeholders and subject-matter professionals to study the potential impact of technology on legal practice and society, and to design a curriculum with sufficient emphasis on cross-disciplinary skills and expertise. Given the dynamic nature of the changes and their consequences, it would also pay for us to think carefully about creating frameworks and conditions that will allow for the regular and systematic review of our legal education model so that it is consistently maintained at a high level of functioning. This might include requiring law schools to undergo periodic curriculum reviews and serious external audits to ensure that stasis and complacency do not set in.

C. *The courage to change*

54. This brings me to my final point. Ideas, no matter how bold, are only as powerful as the will to translate them into action, and that is why we will need the courage to change.

55. A few years ago, Professor James Moliterno, the Vincent Bradford Professor of Law at the Washington and Lee University School of Law, observed that “[t]he profession seems to repeat the same question in

response to every crisis: How can we stay even more the same than we already are?”¹⁰¹ He did not mean this facetiously, nor was he exaggerating. A survey done just last year reported that 94% of law firms recognised the need to make changes to improve practice efficiency, but only 49% of them *actually took* significant steps towards that objective.¹⁰²

56. The precedent-based nature of a lawyer’s training is often offered as a reason for his conservatism.¹⁰³ Another reason is that change on the scale that is required causes too much disruption and is therefore shunned by many who fear its costs and do not see its benefits.¹⁰⁴ But perhaps the real root of the problem has to do with path dependency and vested interests. Senior partners in the law firms may be best positioned to institute new practices and promote new work cultures, but the reality is that many of them have no incentive to endanger their own entrenched work habits or to undertake substantial investment costs in the relatively short time before retirement.¹⁰⁵ Law schools are not exempt from this criticism. Many professors have been said to show a “visceral, negative response” to changes that push them toward “new and unfamiliar subjects and teaching methods”.¹⁰⁶ And the tenure system, which is justified by the need to assure academic independence, can on the other hand fossilize the state of the faculty for decades. At a time of profound and rapid change, this can be especially worrisome if the professors are not actively engaged with the practicing profession. The simple truth is that none of us likes to be nudged out of our comfort zones.

57. Whatever the reasons for the inertia, it is imperative that we overcome them. This is not the time for burying our heads in the sand. The changes which confront us are enormous and require all of us to pull together in the same direction; to put the needs of the next generation first; and to move decisively in their cause. That will require courage: courage to act against our own conservative instincts; courage to invest ourselves fully in a particular course even when its outcome may seem uncertain; and courage to venture beyond what is familiar and safe, to grasp the mantle of the possible and seize the promise of change. This can seem a daunting prospect, but I suggest to you that there is much more to fear if we do nothing at all. Obsolescence and irrelevance await our students, and the gradual disintegration of what we know and understand of our great profession awaits our societies if we do not muster the wherewithal to change what we know we must.

V. Conclusion

58. More than half a century ago, when delivering his inaugural address as the founding dean of the law school at the then University of Malaya, Professor Sheridan said that “[t]he aim of a university school of law is not the ease and comfort of its lecturers and students: its aim is their education”.¹⁰⁷ This statement was meant to galvanise a nascent teaching body then, but I echo it today in the hope that it will similarly galvanise a wider consensus among those of us who are in a position to effect the necessary changes to meet these profound challenges, even as we are reminded of one

fundamental truth, which is that this is all ultimately not about us but about *them* – the students in our law schools today, and the countless generations of others to come.

59. In this, we must remember that law schools are the recipients of a dual entrustment. They have been *entrusted* by students with their personal and professional development; and they have been *entrusted* by society, which relies on a well-functioning legal profession, with the formation of a new generation of competent and public-spirited lawyers. The rule of law can only find meaning through a robust legal profession that is well-equipped to serve society, and there are few tasks more noble than equipping young lawyers with these skills. To this end, law schools must change and adapt, for to fail to do so would be to do a disservice not just to their students, but to the profession and society as a whole.

60. Two years ago, a commission appointed by the ABA released its Report on the Future of Legal Services in the United States which opened with this quote from former US Attorney-General Robert F Kennedy:¹⁰⁸

“Just because we cannot see clearly the end of the road, that is no reason for not setting out on the essential journey. On the contrary, great change dominates the world, and unless we move with change we will become its victims.”

61. This is a time for all of us who are concerned with the state of legal education to move together in unison, to think imaginatively about the

redesign of our law schools and ultimately of the frameworks that organise our profession, and to act courageously upon those ideas. What we have here is a real opportunity to leave a lasting legacy; the chance to safeguard the futures of those who come after us and to set fair the profession as a whole. Let us grasp it fully while we may still call it ours.

62. Thank you all very much.

¹ See E Thomas Sullivan, “2012 James P White Lecture on Legal Education: The Transformation of the Legal Profession and Legal Education” (2013) 46(1) *Indiana Law Review* 145 at p 148.

² See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 1974.

³ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 2015.

⁴ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 2004.

⁵ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 2005.

⁶ See Michele R Pistone and John J Hoeffner, “No Path But One: Law School Survival in an Age of Disruptive Technology” (2013) 59 *The Wayne Law Review* 193 at p 225.

⁷ Almost 50 years ago, it was observed that the socio-economic environment in Singapore had gone through “such striking changes that completely *new burdens* have been thrust upon legal institutions and, indeed, legal education itself” [emphasis added]: see Molly Cheang, “Legal Education and its Role in the Future of Singapore” (1973) 4 *Lawasia* 53 at p 57. The same observation can be made today though the identity of the “burdens” have changed.

⁸ See, generally, Tommy Koh, “Legal Education in Singapore” (1968) *Me Judice* 21.

⁹ Some aspects of the professional training regime, for example, the requirements for obtaining professional qualification and the length of vocational training, are pending change based on recommendations made by the Committee for the Professional Training of Lawyers. The committee was appointed by the Chief Justice in August 2016 to undertake a root-and-branch review of the professional training regime in Singapore and submitted its final report in March 2018. The committee’s report is accessible at <https://www.supremecourt.gov.sg/docs/default-source/default-document-library/report-of-the-committee-for-the-professional-training-of-lawyers.pdf>.

¹⁰ I had the occasion to speak about Singapore’s precarious position at the time of her independence when delivering my address at the American Law Institute’s 93rd Annual Meeting in May 2016: see Sundaresh Menon, “The Rule of Law: The Path to Exceptionalism” (2016) 28 *SAC LJ* 413, especially at paras 17–19.

¹¹ “Legal architects” was the role which Singapore’s founding Prime Minister, the late Mr Lee Kuan Yew, envisaged that our lawyers would play in the nation-building project: see his speech delivered to the University of Singapore Law Society Annual Dinner at Rosee d’Or on 18 January 1962. The speech is accessible at <http://www.nas.gov.sg/archivesonline/data/pdfdoc/lky19620118.pdf>.

¹² See SM Thio, “The Role of the Law Schools in the Developing Nations” (1969) 2(11) *Malaya Law Review* 250 at p 253.

¹³ See Alexander FH Loke, “Legal Education in Singapore”, ch 7 in Kevin YL Tan ed, *Essays in Singapore Legal History* (Marshall Cavendish, 2005) at p 181.

¹⁴ See Alexander FH Loke, “Legal Education in Singapore”, ch 7 in Kevin YL Tan ed, *Essays in Singapore Legal History* (Marshall Cavendish, 2005) at p 180. For example, where the author notes that subjects like “Malayan Legal History” and “Outline of the History and Development of Civil Procedure to the Present Day” were compulsory.

¹⁵ See Alexander FH Loke, “Legal Education in Singapore”, ch 7 in Kevin YL Tan ed, *Essays in Singapore Legal History* (Marshall Cavendish, 2005) at p 181, where the author notes that the law school “could not afford the luxury of giving one entire year to a liberal education in law”:

¹⁶ See Alexander FH Loke, “Legal Education in Singapore”, ch 7 in Kevin YL Tan ed, *Essays in Singapore Legal History* (Marshall Cavendish, 2005) at pp 182–183.

¹⁷ See S Jayakumar and Chin Tet Yung, *Report on the Development of the Faculty of Law* (Singapore: National University of Singapore, 1981) at paras 8(c) and (e)(i)–(ii).

¹⁸ See Simon Chesterman, “The Globalisation of Legal Education” (2008) *Singapore Journal of Legal Studies* 58 at p 64, where the author notes by way of example that the law school at NUS collaborated with the New York University School of Law to jointly offer a dual degree programme which entailed a level of cross-border collaboration and immersion beyond the traditional exchange programmes.

¹⁹ See the opening remarks of my predecessor, Chief Justice Chan Sek Keong, delivered at the SMU Law School Briefing and Reception (2 March 2007), accessible at <https://www.supremecourt.gov.sg/news/speeches/smu-law-school-briefing-and-reception---opening-remarks-of-chief-justice-chan-sek-keong>.

²⁰ See the article in *The Straits Times*, “UniSIM Law School to open in January” (17 February 2016), accessible at <https://www.straitstimes.com/singapore/education/unisim-law-school-to-open-in-january>.

²¹ See LA Sheridan “Legal Education in Malaya” (1957–1958) 4 *Journal of the Society of Public Teachers of Law* 19.

²² See the article in *The Economist*, “When did globalisation start?” (23 September 2013), accessible at <https://www.economist.com/free-exchange/2013/09/23/when-did-globalisation-start>.

²³ See speech delivered by Sundaresh Menon at the Opening Lecture for the DIFC Courts Lecture Series 2015, “International Commercial Courts: Towards a Transnational System of Dispute Resolution” (22 January 2015) at para 2, accessible at <https://www.supremecourt.gov.sg/docs/default-source/default-document-library/media-room/opening-lecture---difc-lecture-series-2015.pdf>.

²⁴ See M Sornarajah, *The International Law on Foreign Investment* (Cambridge University Press, 3rd Ed, 2010) at p 34.

²⁵ See M Sornarajah, *The International Law on Foreign Investment* (Cambridge University Press, 3rd Ed, 2010) at p 35.

²⁶ See, generally, the report by McKinsey Global Institute, “Digital globalization, The new era of global flows” (March 2016), accessible at <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>.

²⁷ See the report by McKinsey Global Institute, “Digital globalization, The new era of global flows” (March 2016) at “In Brief”, accessible at <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>.

²⁸ See the report by McKinsey Global Institute, “Digital Globalization: The New Era of Global Flows” (March 2016) at p 6, accessible at <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>.

²⁹ See the report by McKinsey Global Institute, “Digital Globalization: The New Era of Global Flows” (March 2016) at pp 7 and 47, accessible at <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>.

³⁰ See the article in the *Singapore Law Gazette* “The New European General Data Protection Regulation” (May 2018), accessible at <https://lawgazette.com.sg/feature/the-new-european-general-data-protection-regulation/>.

³¹ See the speech delivered by Justice Steven Chong at the launch of the Singapore GC Report, “The Modern In-House Lawyer: A Call to Action” (18 April 2018), at paras 11–12, accessible at <https://www.supremecourt.gov.sg/Data/Editor/Documents/J%20Steven%20Chong%20Speeches/SCCA-Launch%20of%20GC%20Report.pdf>.

³² See the speech delivered by Justice Steven Chong at the 2015 British Maritime Law Association dinner, “The Singapore International Commercial Court: A New Opening in a Forked Path” (21 October 2015) at paragraph 15, accessible at <https://www.supremecourt.gov.sg/Data/Editor/Documents/J%20Steven%20Chong%20Speeches/SCCA-Launch%20of%20GC%20Report.pdf>.

[0Speeches/The%20SICC%20-%20A%20New%20Opening%20in%20a%20Forked%20Parth%20-%20London%20\(21.10.15\).pdf.](#)

³³ See the speech delivered by Attorney-General Sundaresh Menon at the 2012 ICCA Congress, “International Arbitration: The Coming of a New Age for Asia (and Elsewhere)” (2012) at paragraph 31, accessible at https://www.arbitration-icca.org/media/0/13398435632250/ags_opening_speech_icca_congress_2012.pdf.

³⁴ See the speech delivered by Chief Justice Sundaresh Menon at the lecture jointly organised by the International Council of Jurists and the University of Mumbai, “The impact of Public International Law in the Commercial Sphere and its Significance to Asia” (19 April 2013), accessible at: [https://www.supremecourt.gov.sg/docs/default-source/default-document-library/media-room/the-impact-of-public-international-law-in-the-commercial-sphere-and-its-significance-to-asia-\(final\).pdf](https://www.supremecourt.gov.sg/docs/default-source/default-document-library/media-room/the-impact-of-public-international-law-in-the-commercial-sphere-and-its-significance-to-asia-(final).pdf).

³⁵ See, generally, the speech delivered by Justice Kannan Ramesh at the Conference on the Rise of International Commercial Courts, “International Commercial Courts: Unicorns on a Journey of a Thousand Miles” (13 May 2018), accessible at https://www.sicc.gov.sg/docs/default-source/modules-document/news-and-article/international-commercial-courts-unicorns_23108490-e290-422f-9da8-1e0d1e59ace5.pdf.

See, generally, also Firew Tiba, “The Emergence of Hybrid International Commercial Courts and the Future of Cross Border Commercial Dispute Resolution in Asia” (2016) 14(1) LUCILR 31.

³⁶ See Debbie Ong, *International Issues in Family Law in Singapore* (Academy Publishing, 2015) at para 1.2.

³⁷ See the report jointly prepared by the Centre for the Study of the Legal Profession at the Georgetown University Law Centre and Thomson Reuters Legal Executive Institute, “2017 Report on the State of the Legal Market” (12 January 2017) at p 10, accessible at <https://www.thomsonreuters.com/en/press-releases/2017/january/2017-report-on-the-state-of-the-legal-market.html>.

³⁸ See the report jointly prepared by the Centre for the Study of the Legal Profession at the Georgetown University Law Centre and Thomson Reuters Legal Executive Institute, “2017 Report on the State of the Legal Market” (12 January 2017) at p 2, accessible at <https://www.thomsonreuters.com/en/press-releases/2017/january/2017-report-on-the-state-of-the-legal-market.html>.

³⁹ See the “Technology” page on Quislex’s official website, accessible at <https://www.quislex.com/why/technology/>.

⁴⁰ See the report by Thomson Reuters and Acritas, “2018 State of Corporate Law Departments: Innovation, Data and Collaboration Drive Optimal Results” (2 February 2018) at p 8, accessible at <http://www.legalexecutiveinstitute.com/wp-content/uploads/2018/02/2018-State-of-Corporate-Law-Departments-Report.pdf>.

⁴¹ See the report by Thomson Reuters and Acritas, “2018 State of Corporate Law Departments: Innovation, Data and Collaboration Drive Optimal Results” (2 February 2018) at pp 8 and 13, accessible at <http://www.legalexecutiveinstitute.com/wp-content/uploads/2018/02/2018-State-of-Corporate-Law-Departments-Report.pdf>.

⁴² See the article in Bloomberg, “JP Morgan software does in seconds what took lawyers 360,000 hours” (28 February 2017), accessible at <https://www.bloomberg.com/news/articles/2017-02-28/jpmorgan-marshals-an-army-of-developers-to-automate-high-finance>.

⁴³ See the article in TechCrunch, “DoNotPay launches 1,000 new bots to help with your legal problems”, accessible at <https://techcrunch.com/2017/07/12/donotpay-launches-1000-new-bots-to-help-you-with-your-legal-problems/>.

⁴⁴ See article in The Guardian, “Will robotlawyers price humans out of the game?” (27 March 2017), accessible at <https://www.theguardian.com/law/2017/mar/27/donotpay-founder-too-many-students-still-have-the-establishment-mindset>.

⁴⁵ See the article in the Financial Times, “Artificial intelligence closes in on the work of junior lawyers” (4 May 2017), accessible at <https://www.ft.com/content/f809870c-26a1-11e7-8691-d5f7e0cd0a16>.

⁴⁶ See the report jointly prepared by Boston Consulting Group and the Bucerius Law School, “How Legal Technology Will Change the Business of Law” (January 2016) at p 5, accessible at http://www.bucerius-education.de/fileadmin/content/pdf/studies_publications/Legal_Tech_Report_2016.pdf.

⁴⁷ See the press release by Baker McKenzie (8 May 2016), accessible at <https://www.bakermckenzie.com/en/newsroom/2018/05/litigate-ai-litigation-platform>.

⁴⁸ See the article by The New York Times, “When an Algorithm Helps Send you to Prison” (26 October 2017), accessible at <https://www.nytimes.com/2017/10/26/opinion/algorithm-compas-sentencing-bias.html>.

⁴⁹ See Colin Rule, “Technology and the Future of Dispute Resolution” (2015) 21(2) Dispute Resolution Magazine 4.

⁵⁰ See the report jointly prepared by Boston Consulting Group and the Bucerius Law School, “How Legal Technology Will Change the Business of Law” (January 2016) at p 11, accessible at http://www.bucerius-education.de/fileadmin/content/pdf/studies_publications/Legal_Tech_Report_2016.pdf.

⁵¹ For example, some have predicted that law firms of the future will resemble more of a “rocket” structure: see the report jointly prepared by Boston Consulting Group and the Bucerius Law School, “How Legal Technology Will Change the Business of Law” (January 2016) at p 11, accessible at http://www.bucerius-education.de/fileadmin/content/pdf/studies_publications/Legal_Tech_Report_2016.pdf. Others have predicted a “diamond” structure: see the article in Legal Futures, “Legal Futures Conference: ‘Third of top 300 law firms will disappear by 2022’ (22 November 2017), accessible at <https://www.legalfutures.co.uk/latest-news/legal-futures-conference-third-top-300-law-firms-will-disappear-2022>. See also Mitch Kowalski, “2020 Vision” in the July-August 2009 edition of the Canadian Bar Association *National* magazine at p 20, accessible at http://kowalski.ca/wp-content/uploads/2016/04/2020_vision.pdf

⁵² See the report by Thomson Reuters, “Alternative Legal Service Providers: Understanding the Growth and Benefits of These New Legal Providers” (2017), accessible at https://static.legalsolutions.thomsonreuters.com/static/pdf/alternative-legal-service-providers_long.pdf.

⁵³ See the article in BusinessWire, “Axiom launches contract intelligence platform to drive radical transparency in corporate transactions” (30 January 2018), accessible at <https://www.businesswire.com/news/home/20180130005467/en/Axiom-Launches-Contracts-Intelligence-Platform-Drive-Radical>.

⁵⁴ See Daniel Martin Katz, “The MIT School of Law? A Perspective on Legal Education in the 21st Century” (2014) 5 *University of Illinois Law Review* 1431 at p 1444.

⁵⁵ See the report jointly prepared by the Centre for the Study of the Legal Profession at the Georgetown University Law Centre and Thomson Reuters Legal Executive Institute, “2017 Report on the State of the Legal Market” (12 January 2017) at p 9, accessible at <https://www.thomsonreuters.com/en/press-releases/2017/january/2017-report-on-the-state-of-the-legal-market.html>.

⁵⁶ See the report by the American Bar Association Commission on Professionalism, “‘... In the Spirit of Public Service:’ A Blueprint for the Rekindling of Lawyer Professionalism” (1986) at p 55.

⁵⁷ See Rayman L Solomon, “Five Crises or One: The Concept of Legal Professionalism, 1925–1960” ch 4 in Robert L Nelson et al, eds, *Lawyers’ Ideals / Lawyers’ Practices: Transformations in the American Legal Profession* (Cornell University Press, 1992) at p 173. Or as Mary Ann Glendon, the Learned Hand Professor of Law at Harvard University, has written, our profession is now at the “edge of chaos”.

⁵⁸ See James R Faulconbridge and Daniel Muzio, “Financialisation by Proxy: The Case of Large City Law Firms”, ch 3 in Hilary Sommerlad *et al* eds, *The Futures of Legal Education and the Legal Profession* (Hart Publishing, 2015) at p 38.

⁵⁹ See the report jointly prepared by the Centre for the Study of the Legal Profession at the Georgetown University Law Centre and Thomson Reuters Legal Executive

Institute, “2018 Report on the State of the Legal Market” (10 January 2018) at p 14, accessible at <http://www.legalexecutiveinstitute.com/2018-legal-market-report/>.

⁶⁰ See the client advisory by Citibank, “The Legal Market in 2017, 2018 and Beyond”, Citi Private Bank and Hilderbrandt Consulting LLC (December 2017), accessible at <https://www.privatebank.citibank.com/home/fresh-insight/citi-hildebrandt-client-advisory.html>

⁶¹ See the press release by Ernst & Young, “EY expands global legal managed services offering with acquisition of Riverview Law” (7 August 2018), accessible at https://www.ey.com/en_gl/news/2018/08/ey-expands-global-legal-managed-services-offering-with-acquisition-of-riverview-law.

⁶² See the article in The American Lawyer, “As law firms stall, who will overtake them in the innovation race?” (January 2018), accessible at <https://www.law.com/americanlawyer/sites/americanlawyer/2018/01/30/as-law-firms-stall-who-will-overtake-them-in-the-innovation-race/>.

⁶³ See the article in Legal Futures, “Legal Futures Conference: ‘Third of top 300 law firms will disappear by 2022’” (22 November 2017), accessible at <https://www.legalfutures.co.uk/latest-news/legal-futures-conference-third-top-300-law-firms-will-disappear-2022>.

⁶⁴ See the paper by Ben W Heineman Jr, William F Lee and David B Wilkins, *Lawyers as Professionals and as Citizens: Key Roles and Responsibilities in the 21st Century* (Harvard Law School, Center on the Legal Profession) at p 38.

⁶⁵ See, generally, Patrick J Schiltz, “On Being a Happy, Healthy, and Ethical Member of an Unhappy, Unhealthy, and Unethical Profession” (1999) 52 *Vanderbilt Law Review* 871.

⁶⁶ See Patrick J Schiltz, “On Being a Happy, Healthy, and Ethical Member of an Unhappy, Unhealthy, and Unethical Profession” (1999) 52 *Vanderbilt Law Review* 871 at p 903.

⁶⁷ See Roscoe Pound, *The Lawyer from Antiquity to Modern Times: With Particular Reference to the Development of Bar Associations in the United States* (West Publishing Company, 1953) at pp 353–354.

⁶⁸ The first paragraph of the preamble to the ABA Model Rules of Professional Conduct reads: “A lawyer, as a member of the legal profession, is a representative of clients, an officer of the legal system and a public citizen having special responsibility for the quality of justice.” These rules are accessible at https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/model_rules_of_professional_conduct_preamble_scope.html.

⁶⁹ See Judith Welch Wegner, “Reframing Legal Education’s ‘Wicked Problems’” (2009) 61(4) *Rutgers Law Review* 867 at especially p 876.

⁷⁰ See, generally, Judith Welch Wegner, “Reframing Legal Education’s ‘Wicked Problems’” (2009) 61(4) *Rutgers Law Review* 867.

⁷¹ See, generally, David C Vladeck, “Machines Without Principals: Liability Rules and Artificial Intelligence” (2014) 89 *Wash L Rev* 117.

⁷² See the white paper by R3 and Norton Rose Fulbright, “Can smart contracts be legally binding contracts?” (November 2016), accessible at www.nortonrosefulbright.com/knowledge/publications/144559/can-smart-contracts-be-legally-binding-contracts.

⁷³ See the article in The Economist, “Not-so-clever contracts” (28 July 2016), accessible at <https://www.economist.com/business/2016/07/28/not-so-clever-contracts>.

⁷⁴ See the article in The Straits Times, “Singapore’s first bitcoin dispute to go to trial” (5 December 2017), accessible at <https://www.straitstimes.com/singapore/singapores-first-bitcoin-dispute-goes-to-trial>.

⁷⁵ See the speech delivered by Chief Justice Sundaresh Menon at the Keio Law School Symposium, “The Future is Now: Legal Trends in the Global Village” at paragraph 60, accessible at <https://www.supremecourt.gov.sg/Data/Editor/Documents/The%20>

[Future%20is%20Now%20-%20Legal%20Trends%20in%20the%20Global%20Village.pdf](#).

⁷⁶ See the report by the Council of Europe, “Access to justice and the Internet: potential and challenges” (10 November 2015), accessible at <http://assembly.coe.int/nw/xml/XRef/Xref-DocDetails-EN.asp?fileid=22245>.

⁷⁷ See the BAILII lecture delivered by the Lord Chief Justice Thomas of Cwmgiedd, “Developing commercial law through the courts: rebalancing the relationship between the courts and arbitration” (9 March 2016) at para 5, accessible at <https://www.judiciary.uk/wp-content/uploads/2016/03/lcj-speech-bailli-lecture-20160309.pdf>.

⁷⁸ See the discussion paper by the University of Melbourne, “Current State of Automated Legal Advice Tools” (April 2018) at p 16, accessible at https://networkedsociety.unimelb.edu.au/_data/assets/pdf_file/0020/2761013/2018-NSI-CurrentStateofALAT.pdf.

⁷⁹ See the discussion paper by the University of Melbourne, “Current State of Automated Legal Advice Tools” (April 2018) at p 31, accessible at https://networkedsociety.unimelb.edu.au/_data/assets/pdf_file/0020/2761013/2018-NSI-CurrentStateofALAT.pdf.

⁸⁰ See the article in The New York Times, “When an algorithm helps send you to prison” (26 October 2017), accessible at <https://www.nytimes.com/2017/10/26/opinion/algorithm-compas-sentencing-bias.html>.

⁸¹ See the IBM Research website, accessible at <https://www.research.ibm.com/5-in-5/ai-and-bias/>.

⁸² See the Patron’s Address delivered by Sundaresh Menon CJ at the Chartered Institute of Arbitrators London Centenary Conference (2 July 2015) at para 3, accessible at <https://www.supremecourt.gov.sg/docs/default-source/default-document-library/media-room/ciarb-centenary-conference-patron-address.pdf>.

⁸³ See the report jointly prepared by the Centre for the Study of the Legal Profession at the Georgetown University Law Centre and Thomson Reuters Legal Executive Institute, “2017 Report on the State of the Legal Market” (12 January 2017) at p 10, accessible at <https://www.thomsonreuters.com/en/press-releases/2017/january/2017-report-on-the-state-of-the-legal-market.html>.

⁸⁴ See the Forbes article by Mark Cohen, “What’s a ‘Law company’ and why are legal consumers embracing it?” (20 November 2017), accessible at <https://www.forbes.com/sites/markcohen1/2017/11/20/whats-a-law-company-and-why-are-legal-consumers-embracing-it/#9baf653155c7>.

⁸⁵ See Paul Redmond, “The Values Dimension of Legal Education: Educating for Justice and Service”, ch 7 in Christopher Gane and Robin Hui Huang eds, *Legal Education in the Global Context: Opportunities and Challenges* at p 101.

⁸⁶ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 2017.

⁸⁷ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at pp 1960–1961.

⁸⁸ See James Maxeiner, “Learning from Others: Sustaining the Internationalization and Globalization of US Law School Curriculums” (2008) 32 *Fordham International Law Journal* 32 at p 37.

⁸⁹ See Carmel O’Sullivan and Judith McNamara, “Creating a Global Law Graduate: The Need, Benefits and Practical Approaches to Internationalise the Curriculum” (2015) 8(2) *Journal of Learning Design* 53 at p 56.

⁹⁰ See the article in *Above the Law*, “Cognifying Legal Education” (2 May 2018), accessible at <https://abovethelaw.com/law2020/cognifying-legal-education/>.

⁹¹ See the blog article in Josef, “Law school and legal design: where to next?”, accessible at <https://joseflegal.com/blog/law-school-and-legal-design-where-to-next>.

⁹² See the Mass Call Address delivered by Chief Justice Sundaresh Menon, “Constancy and Change” (30 August 2018), accessible at <https://www.supremecourt.gov.sg/news/speeches/mass-call-2018---address-by-the-chief-justice>.

⁹³ See the article in Legal IT Today, “Winning the battle to teach legal technology and innovation at law schools” (17 March 2017), accessible at <http://burke-company.com/wp-content/uploads/2017/04/LegalITToday-Winning-the-battle-to-teach-legal-technology-and-innovation-at-law-schools.pdf>.

⁹⁴ See Sabrina C Narain, “A Failure to Instill Realistic Ethical Values in New Lawyers: The ABA and Law School’s Duty to Better Prepare Lawyers for Real Life Practice” (2014) 41(2) *Western State University Law Review* 411 at p 417.

⁹⁵ See Paul Redmond, “The Values Dimension of Legal Education: Educating for Justice and Service”, ch 7 in Christopher Gane and Robin Hui Huang eds, *Legal Education in the Global Context: Opportunities and Challenges* at p 104.

⁹⁶ See Benjamin A Spencer, “The Law School Critique in Historical Perspective” (2012) 69(4) *Washington and Lee Law Review* 1949 at p 1961.

⁹⁷ See Daniel Martin Katz, “The MIT School of Law? A Perspective on Legal Education in the 21st Century” (2014) 5 *University of Illinois Law Review* 1431.

⁹⁸ See Daniel Martin Katz, “The MIT School of Law? A Perspective on Legal Education in the 21st Century” (2014) 5 *University of Illinois Law Review* 1431 at p 1465.

⁹⁹ See Daniel Martin Katz, “The MIT School of Law? A Perspective on Legal Education in the 21st Century” (2014) 5 *University of Illinois Law Review* 1431 at p 1470.

¹⁰⁰ See the Law Lab website, accessible at <https://www.thelawlab.com/teaching>.

¹⁰¹ See James Moliterno, “The Future of Legal Education Reform” (2013) 40 *Pepperdine Law Review* 423.

¹⁰² See the survey by Altman Weil, “2017 Law Firms in Transition” (2017) at p iv of the Introduction, accessible at http://www.altmanweil.com/dir_docs/resource/90D6291D-AB28-4DFD-AC15-DBDEA6C31BE9_document.pdf.

¹⁰³ See, for example, the report by the International Bar Association Legal Policy and Research Unit, “‘Times are a-changin’’: disruptive innovation and the legal profession” (May 2016) at p 27.

¹⁰⁴ See, for example, the note by Singapore’s former Senior Minister of State for Law, Ms Indranee Rajah SC, “Tech Start for Lawyers” (16 May 2017), accessible at <https://www.mlaw.gov.sg/content/dam/minlaw/corp/News/Note%20to%20Legal%20Profession%20On%20Technology.pdf>.

¹⁰⁵ See the article in the Sigurdson Post, “The evolving legal service delivery model: A 2018 survival guide for BigLaw and Traditional Law firms – building a new business model” (14 January 2018), accessible at <http://www.sigurdsonpost.com/2018/01/14/the-evolving-legal-service-delivery-model-in-the-fourth-industrial-revolution-a-2018-survival-guide-for-biglaw-and-traditional-law-firms-building-the-new-law-firm-business-model/>.

¹⁰⁶ See William D Henderson, “A Blueprint for Change” (2013) 40 *Pepperdine Law Review* 461 at p 463.

¹⁰⁷ This quote is taken from the inaugural lecture given on 19 October 1956 in the Arts Lecture Theatre by Professor LA Sheridan, LLB, PhD, of Lincoln’s Inn, Barrister-at-Law, on his becoming the first Professor of Law at the University of Malaya.

¹⁰⁸ See ABA Commission on the Future of Legal Services 2016, “Report on the Future of Legal Services in the United States” at p 4, accessible at <http://abafuturesreport.com>.