I. Introduction

1 Many will recall the book written by Thomas Friedman about ten years ago in which he argued that the world is becoming flat.\footnote{Thomas L Friedman, \textit{The World is Flat: The Globalized World in the Twenty-first Century} (Farrar, Straus and Giroux, 2005).} While it would be premature to say the “flatteners” he identified have run their course, their impact is certainly more pronounced now than they have ever been. Individuals and corporations can access the world “farther, faster, deeper and cheaper than ever” before.\footnote{Thomas L Friedman, “A Manifesto for the Fast World” \textit{The New York Times} (28 March 1999) \texttt{<https://www.nytimes.com/books/99/04/25/reviews/friedman-mag.html>} (accessed 22 January 2016).} Transnational economic activity has reached unprecedented levels and cross-border disputes have acquired hitherto unseen levels of complexity.

2 Throughout history, those who have failed to adjust to new paradigms have faced existential threats. We should not expect lawyers and law students to be spared from this. In the context of the legal landscape, I want to advance three
trends in today’s increasingly flat world that necessitate rethinking and retooling on our part if we are to remain relevant.

3 Briefly, the three trends are these:

(a) First, the flattened world is characterised by extensive transnational trade; and arbitration has grown in importance to become, arguably, the primary purveyor of justice in the resolution of disputes that stem from this. There are costs and consequences associated with privatised justice that we should be aware of. Related to that, public international law has now permeated so many areas of private law that it has become important and even necessary to have a working knowledge of public international law.

(b) Second, the world has been flattened in large part owing to the force of technology. Recent technological advances have either already caused, or will very imminently cause, seismic shifts in the way the legal profession is arranged and functions. Lawyers will need to stay abreast of these technological changes to competently resolve increasingly complex and document intensive commercial disputes.

(c) Third, as the world flattens, we have seen a gradual convergence in substantive and procedural aspects of the law. This is an emerging
trend, but I consider that convergence is inexorable, and within limits, it should be actively encouraged.

4 Allow me to examine each of these three trends in greater detail and to explore their implications for us as judges, lawyers, educators and law students.

II. The privatisation of justice and the growing importance of public international law

5 I begin with the privatisation of justice and the growing importance of public international law.

(a) The privatisation of justice

6 Arbitration grew in prominence in the aftermath of World War II. At that time, international arbitration was different from litigation and was promoted as such. It was seen as “almost a kind of non-law”.\(^3\) Arbitrators were chosen not so much for their legal competence as for their personal integrity and their understanding of commercial realities and technical matters. Arbitral decisions were based on “equity and practical needs instead of formal legal rules” and the system of precedent was not strictly adhered to. Proceedings were characterised by maximum flexibility and

awards were fulfilled “as a matter of honour”. Put simply, arbitration provided
“adequate decisions for the individual case”.4

7 From about the 1970s arbitration underwent a sea change and witnessed at
least two significant developments. First, proceedings became “judicialised”. This
term has been used as a short-hand to refer, among other things, to:

(a) the introduction of litigation-style procedure to regulate arbitral
    proceedings;

(b) the tendency towards a more adversarial process; and

(c) greater reliance on traditional legal argumentation and on precedents in
    reaching decisions.

8 Arbitrators today function in many ways much like judges except that they are
privately appointed and bound to the parties in respect of their fees in a way that a
judge would not be. Accompanying this has been a shift towards the view of the
arbitor as a legal entrepreneur in the business of providing adjudicative services.5

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4 Ralf Michaels, “Roles and Role Perceptions of International Arbitrators” in International Arbitration and Global
5 Ralf Michaels, “Roles and Role Perceptions of International Arbitrators” in International Arbitration and Global
The injection of entrepreneurship has opened the market for arbitrators, which used to be dominated by a “small, closed group of self-regulating artisans”, to more “open and competitive business”.

This gives rise to certain costs that might be associated with privatised justice.

(1) Arbitrators as privately contracted service providers

Society generally holds its collective commitment to justice in high regard. Bracton, writing in the 13th century, said “the King should do justice…lest the King and the justices fall into the judgment of the living God because of an injustice.” Simply put, all adjudicators must themselves adhere to these strictures.

One way we try to ensure this where national judges are concerned is by granting them tenure. This divests the judge of a financial interest in his judicial output. But this fundamental guarantor of justice and independence is absent in arbitration. Arbitrators offer a service and inevitably have a keen interest in being appointed to hear more cases. This creates two potential problems that can result in compromising the quality of justice they dispense.

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12 The first concerns the issue of repeat arbitrators. Arbitrators are privately contracted service providers. As with every other service provider they depend on repeat business. How can concerns be dispelled that arbitrators might become biased towards particular parties whether “out of the possibility of future financial gain, a sense of business loyalty, or simply an emotional attachment”? To be fair, many arbitrators uphold the highest standards of integrity and discharge their duties to the parties without regard to the possibility of future appointments. But, as the industry becomes more open, the prospect of arbitrators deciding cases based on financial motivations becomes more real.

13 Second, arbitrators may end up taking on more cases than they can reasonably handle. This inevitably delays the arbitral process. Additionally, owing to time constraints, this can result in a hands-off approach to managing the case that tends to be characterised by the issuance of a templated Procedural Order which schedules the matter for hearing based on a set of standard directions. When the


9 David W Rivkin & Samantha J Rowe, “The Role of the Tribunal in Controlling Arbitral Costs” (2015) 81(2) Arbitration 116 at p 125. I made this same point in my closing remarks at the Singapore International Arbitration Forum 2013 in the following terms:

About 16 years or so ago I appeared in an international arbitration that was held before a prominent continental lawyer. I remember watching with admiration as he distributed a draft Procedural Order that had evidently been saved on his computer. The standard form of PO 1 has evolved since then and it seems clear from much of what was said today that in many respects, this is now passé. It is less the content of the PO than it is the danger that it has become the default for structuring every arbitration where the arbitrators are themselves very busy and so seem more concerned with lighting the fuse so that they can come back to it a year or two later when it is time to get to the business end of resolving the matter.
parties eventually come to the hearing, they have no idea of what might concern the tribunal and so prepare with more or less equal emphasis on each and every point.

14 An overcommitted arbitrator may also end up improperly delegating tasks to arbitral assistants. The challenge against the largest arbitral award in history, the Yukos Award, alleged, among other things, that the tribunal did not personally fulfil its mandate because the arbitral assistant played a disproportionate role in analysing the evidence and legal arguments and in drafting the award. This has added fuel to an on-going debate on the permissible limits to which arbitral tribunals may rely on assistants and the nature of the duties that may properly be delegated to them.10

15 From the parties’ perspective, these shortcomings result in delays, inflation of costs and errors of fact and/or law all of which can affect the quality of justice.

(2) Matters that involve important questions of public interest are put outside the reach of constitutional actors

16 I move to the second societal cost of privatised justice. Briefly put, it causes matters that involve important questions of public interest to be placed outside the reach of traditional constitutional actors.

17 This stems in part from the fact that the domain of commercial arbitration has expanded over time. At one stage, commercial arbitration was generally concerned only with claims arising directly out of a contract. Over time, more and more claims based on statutes have become arbitrable.\textsuperscript{11} Often, the statutes in question regulate economic activity involving matters of significant public interest. For example, courts across a number of jurisdictions have considered anti-trust, intellectual property, consumer and securities disputes arbitrable.\textsuperscript{12} One commentator has suggested that by virtue of this, courts are ceding part of their role as “guardian[s] of public policy”\textsuperscript{13}.

18 The concern can be illustrated by reference to some controversial, sharply split decisions of the US Supreme Court in recent years which, it has been said, have “vastly expand[ed] the power of companies to impose and control arbitration procedures while tying the hands of state legislatures and courts”.\textsuperscript{14}

19 There are also other consequences that flow from the expanding scope of arbitration. First, arbitration can encroach upon the ability of States to implement uniform, centrally-decided, socio-economic policies on politically significant matters


such as employee, consumer and environmental protection. Arbitral tribunals which dispense private justice in these areas in relation to individual cases, displace the role that courts have traditionally played in deciding such matters for the whole polity. This has implications on how non-parties would otherwise adjust their behaviour in the shadow of the law.

Further, privately contracted arbitrators may reach problematic decisions on the sorts of issues I have mentioned because of the financial overtones affecting their relations with one of the parties. I reiterate that there are a great many respected arbitrators of the highest integrity, but as arbitration becomes an open industry, the potential for failure will rise. The New York Times recently ran an extensive two-part series. Although it has to be said that the reporters relied heavily on anecdotal evidence entirely in an American setting, nonetheless it highlights the seamy underbelly of the arbitration of contract claims in such areas as employee and consumer protection.\textsuperscript{15} The article reports that more than three dozen arbitrators who were interviewed described how they felt beholden to the companies that appointed them. One particularly egregious example concerned a sex discrimination claim brought by a doctor against a medical group that had dismissed her. The article enumerates various procedural lapses and instances of apparent or actual bias on the part of the arbitrator including the fact that the award which went against

the claimant contained passages pulled, verbatim, from the medical group’s legal briefs. The recount of the claimant’s experience ends with the following statement:

“It took away my faith in a fair and honourable legal system,” said [the claimant] who is still paying off $200,000 in legal costs seven years later.

The point on legal costs tucked away at the end of that sentence might give rise to separate concerns about the efficiency of arbitration.

(3) **Loss of the public goods that adjudication in national courts produces**

21 The third cost of privatised justice is that it results in society losing some of the public good that come out of adjudication in the national courts.

22 I refer here to the precedents and legal rules that common law courts generate.16 These establish “norms of behaviour” for the whole community.17 Common law is based on the doctrine of precedent and is made up of, among other things, judge made law that binds other courts in subsequent cases. In contrast, arbitral tribunals settle disputes between private parties. Their concern is not to establish norms of behaviour for the community or to progressively develop the law, as common law courts do. Indeed, many awards are not published because of the significant party interest in confidentiality which is an important factor that draws

parties to arbitration in the first place. Hence, the privatisation of justice tends to dry up the rich, behaviour-moulding stream that emanates from the common law courts.

23 I must however caution against a knee-jerk reaction, whether judicial or legislative, to narrow the scope of arbitration indiscriminately. In my view arbitration must and indeed will continue to play an important role, alongside litigation before national courts, in resolving transnational disputes. The system of arbitration could use some adjustments and improvements, not wholesale abandonment. But such reforms must come from within the industry. At the same time, national courts must recognise that they too have an important role to play in the resolution of transnational commercial disputes. I will shortly point to a number of ways in which this is already being recognised and acted upon.

(b) The growing importance of public international law

24 Before I leave the topic of arbitration, I should touch on a separate but related topic – the growing importance of public international law.

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25 As a law student at the National University of Singapore more than 30 years ago, I remember finding public international law a very interesting subject. I was enthralled by the fact that the discussion extended to such basic questions as just what is international law, and even whether it was properly to be considered as law at all or whether, in truth, it was really an aspect of the study of international relations and more closely tied to the realm of politics rather than of law. It was intellectually very challenging but I remember thinking it would be a luxury to even imagine specialising in international law since it didn’t seem to impact greatly on the real issues of life.

26 Things have changed dramatically in the last three decades. Public international law can no longer be considered remote and it would simply be unthinkable today to spend time pondering whether this was even law or not. Things have progressed to such a degree that to be an effective practitioner of private commercial law, it has become important and even necessary to have a working knowledge of public international law.

27 Historically, the line between public international law and private law was clearly drawn. Public international law is that which governs the relationship between sovereign States. It emanates from the free will of state actors. While this may be expressed in conventions or usages, the quest to find an applicable rule of international law remained a search for that exercise of free will – an acceptance to be bound by norms that regulate relations between co-equal sovereigns. In contrast,
private law is the law that regulates the relationship between private subjects and between the State and its citizens. It is seldom in any direct sense the result of an exercise of free will in the same way.

28 But the line between public international law and private law has become increasingly blurred over the last three decades. The classical understanding of public international law as something created solely by and for sovereigns is much too simplistic today. The international legal system has reduced the role of States in terms of their once almost exclusive ability and capacity to produce or generate international legal norms; as well as in terms of the enforcement of international law. What has happened concurrently is the opening up of space for the participation of private actors in the domain of international law. This has even affected the academic discourse, with one scholar saying that as with other public services – schools, prisons, energy utilities, transportation and communications – “privatization has come to international law”.20

29 I suggest there are at least two important ways of thinking about the privatisation of public international law. The first is in terms of process. Norm-generation in the international law domain has to a significant degree been devolved from States to a select few private individuals. This trend is most evident in the context of investor-state arbitration – a topic to which I will turn shortly. The second

way of thinking about this privatisation is in terms of its reach – international law increasingly reaches inside the State so that it affects the State’s relationship with those within its borders. This goes beyond international law’s familiar territory of governing the relationship among States.

(1) Investor-state arbitration

30 Picking up the first point, one of the key features of today’s arbitral landscape is the proliferation of investment treaty arbitration. In the last decade alone, investor-state arbitration has evolved into a robust system of adjudication to resolve disputes arising out of a web of more than 3,000 bilateral investment treaties, regional free trade agreements and multilateral agreements. As at 31 December 2015, the International Centre for the Settlement of Investment Disputes (ICSID) had registered 549 cases since the first case registered in 1972. Of these, 218 cases (or nearly 40%) were registered in just the last five years.21 These are cases brought against States by private actors; simply put, never before have we seen so many actions being brought against sovereign States by private parties who are seeking to enforce against States, their treaty obligations under international law.

31 The provision in investment treaties of an avenue for private investors to pursue claims directly against a sovereign State for damages arising from breach of that State’s obligations under a treaty has marked a paradigm shift in international law.

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21 The ICSID Caseload – Statistics (Issue 2016-1)
law. A private investor is no longer at the mercy of inter-governmental politics in initiating claims resolution; consequently the initiation of such claims is not liable to be held hostage by wider foreign relations considerations that might affect the States in question.

32 We see in this growing phenomenon, norms of international law being generated by a small band of arbitrators in a way and to a degree that is unprecedented. And by affording a direct remedy to private claimants enabling them to sue a state, we are also seeing the growing reach of international law.

33 But there are converse aspects to this; investor-state arbitration can impede the ability of States to regulate activities that might in some way affect the interests of investors. Chief Justice Robert French of Australia has observed that these arbitral tribunals may even be a “cut above the courts”. This is because disgruntled investors can, and in fact have, successfully used the arbitral process to challenge even the decisions of apex courts by characterising them as acts of the host State that are in breach of its treaty obligations.22 The spectre of constitutional office-holders’ decisions being overridden or held illegal by private arbitrators might give us pause for thought.23


23 See my discussion of the Saipem case and this point more generally at paras 5 to 15 of Sundaresh Menon, “International Investment Arbitration in Asia: The Road Ahead” Keynote address at the 4th Annual Singapore (cont’d on next page)
In addition, decisions of arbitral tribunals constituted under investment treaty cases do not possess any formal precedential value. While it has become common practice for private investors, governments and arbitral tribunals to turn to past arbitral decisions for guidance on how to interpret similar provisions in other investment treaties, the difficulty is that the ad hoc and dispersed regime underpinning investor-state arbitration is ill-suited to developing a proper system of jurisprudence to govern and guide the development of international investment law.

What does the proliferation of investor-state arbitration mean for our legal community? The immediate implication is that dispute settlement under investment treaties has become an additional weapon in the arsenal of remedies available to those seeking to protect their clients’ commercial interests from being adversely affected by governmental action. It has therefore become much more important for lawyers (and, consequently, law students) to understand how to utilise the rights available under the existing investment treaty network to advance their client’s business interests. The market for legal services in the context of investor-state arbitration has expanded significantly with the proliferation of investor-state arbitrations; but to pursue this opportunity, an understanding of commercial law alone simply will not suffice.

Investor-state arbitration is a fundamentally different creature from international commercial arbitration. Commercial arbitration involves obligations arising from a freely negotiated contract between two private entities. On the other hand, investor-state arbitration involves obligations that originate from an international treaty that would have been negotiated between the host State and the home State of the investor.

It is thus evident that a good grasp of public international law, including for instance the treaty interpretation rules under the Vienna Convention on the Law of Treaties, is a necessary pre-requisite for any law student aspiring to practise in this area.

(2) International trade law

Let me develop the second point I made earlier concerning the reach of international law into the domestic sphere and here I will focus on the area of international trade law. Governments increasingly recognise the need in today’s globalised world for engagement on the international plane to unify standards and practices and to lower barriers to commerce. This is necessary in order to facilitate the global cross-border trade in and movement of goods and services. The result of this engagement has been a substantial network of trade agreements that sit alongside the regime of the World Trade Organisation (WTO), which seeks to regulate trade relations between States.
39 This is an area where the growing reach of international law inside the State is plain to see. Private actors such as major trading corporations are able today to secure rights from this system of trade obligations and rights that operate on the international plane, albeit indirectly. Unlike investor-state arbitration, private parties do not have direct access to the dispute settlement system under the WTO, which is characterised by compulsory jurisdiction, strict time frames, and is based on a two-tiered framework consisting of panels at first instance, and an Appellate Body in the final instance.

40 Although the WTO dispute settlement system accepts only disputes between States, as a matter of practice, private companies have successfully petitioned their own governments to take recourse against non-compliant States by challenging the legality of their measures under the WTO agreements. As a result, many WTO disputes actually reflect the corporate rivalries of private actors.

41 For example, the “Case of Japan – Measures Affecting Consumer Photogenic Film and Paper”, was brought before the WTO dispute settlement panel as a result of the lobbying efforts of trade rivals, Kodak and Fuji. The dispute concerned allegedly restrictive regulatory practices that were adopted by Japan and aimed at foreign suppliers in the Japanese film market. Commonly referred to as the “Kodak-Fuji” dispute, one scholar suggests that Kodak and Fuji were the real parties in interest, since it was they who stood to gain or lose economically from the ultimate
resolution of the dispute before the WTO dispute settlement body. At the heart of the case was the issue of competition and greater market access in a domestic setting. In determining such issues at the international level, the WTO, in effect, was making decisions that went to the very heart of the domestic affairs of each State.

III. Developments in information technology will change the way the legal profession is arranged and functions

I now leave the topic of privatised justice and public international law and move to the second trend I identified earlier.

The term “exponential growth” is so frequently used imprecisely that its real meaning is lost on many. Richard and Daniel Susskind suggest the following thought experiment in their latest book to help us truly appreciate what it actually means. They tell us to start by imagining an ordinary sheet of paper of unremarkable weight. Then, imagine repeatedly folding this sheet in half. In their words:

After four folds, it will be as thick as a credit card. … If it could be folded eleven times, it would be as tall as a can of Diet Coke. After ten more folds… it would be taller than Big Ben. After a further ten folds, it would reach into outer space. After twelve more folds, it would reach the moon. And, if [we] could fold this single piece of paper 100 times, it would create a wad over 8 billion light years in thickness.

This seems incredible at first blush; but it follows from the fact that each new iteration is equal to and so doubles all that has been achieved until and including the previous iteration. In 1965, Gordon Moore, the co-founder of Intel, predicted that the processing power of computers would grow at such an exponential rate with processing power doubling every two years or so. Amazingly, his prediction has come to pass and is still holding strong. If Moore’s Law continues unabated, by 2020, an average desktop computer will have roughly the same processing power as a human brain; and by 2050 “one thousand dollars of computing will exceed the processing power of all human brains on Earth”! All this growth has brought about systems and machines that are increasingly capable of performing tasks that were once thought of as the exclusive preserve of humans. Richard and Daniel Susskind predict that “[j]obs will disappear, ways of life will be ended and hard-earned qualifications will be rendered defunct” as a result of these machines.

One task that machines of this sort will be able to perform is particularly relevant for our purposes. They can “delve into our reserves of past experience”, “grasp patterns and glean insights inaccessible to the human mind”, if only

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because of the sheer volume of materials involved, and then make accurate
predictions in a way that mimics human intelligence. Researchers have used various
terms such as “machine learning, neural networks, big data, cognitive systems, or
genetic algorithms” to refer to this capability.\(^\text{30}\) By whatever name, it represents a
breakthrough in Artificial Intelligence (“AI”).

46 Early efforts to enable machines to behave in an apparently intelligent fashion
primarily used what is known as the “symbolic systems approach” to AI. This
required programmers to mine the knowledge of human experts and then “hardwire
their knowledge and experience into a system”.\(^\text{31}\) The alternate approach to AI,
known as “neural networking” did not take off until recently. This only requires the
programmer to present sufficient examples to the computer of how a decision is
made without having to spell out the problem-solving process. To put it another way,
rather than telling the computer how to solve the problem, it involves the
programmer showing the computer what he has been doing. This required too much
memory and data processing capacity for early generation computers to handle but
that is no longer a constraint thanks to the exponential growth in processing power

\(^{30}\) Jerry Kaplan, *Humans Need Not Apply: A Guide to Wealth and Work in the Age of Artificial Intelligence* (Yale
University Press, 2015) at p 5.

\(^{31}\) Richard Susskind & Daniel Susskind, *The Future of the Professions: How Technology will Transform the Work of
and memory and also because the Internet provides “enormous troves of examples” for these systems to learn from.\(^\text{32}\)

47 Big Data techniques are already being used in the field of medicine, to provide diagnoses from symptoms; and in law, to analyse databases of decisions by judges and regulators to predict outcomes of cases.\(^\text{33}\) The Lexis Advance MedMal Navigator uses this technology to offer lawyers predictions on potential medical-malpractice cases so as to enable them to quickly determine whether a case is worth taking on. And Lex Machina does for patent lawyers what MedMal Navigator does for medical-malpractice attorneys. It “webcrawls” the internet for data from all known, reliable sources of patent law and uploads these into a master database and then predicts how a new patent will fare based on the data collated. Some of these systems can even take into account a number of variables such as the ruling history of the judge who will likely decide the case. Yet another product, Verdict & Settlement Analyzer, uses the same technology to trawl through case law to offer attorneys advice on whether a motion will be approved or denied. It also provides


advice to general counsel on whether a matter should be handled internally or by outside counsel.  

48 In the context of common law jurisdictions, Big Data techniques have been employed in technology assisted review (“TAR”) tools which offer common lawyers a new and more efficient manner of conducting electronic discovery, or e-discovery.  

49 Discovery is a common law pre-trial procedure that involves, among other things, document production by the parties. Technology has brought about an explosion in the volume of information that we produce and keep. When parties are drawn into litigation in a common law jurisdiction, they may well be required to give discovery of relevant electronically stored information (“ESI”) in their possession, custody or power. TAR refers to a computerised system of classifying documents in a collection as either meeting—or not meeting—certain criteria. In the context of e-discovery, TAR is typically used to identify documents that are “responsive to a [particular] request for production, or to identify documents that are subject to privilege or work-product protection”.


35 The literature on TAR commonly use the term “machine learning” when explaining the technology involved. As I mentioned at [36] above, this is simply another term which is used interchangeably with “Big Data”.


Lawyers have traditionally turned to keyword searches to identify relevant ESI. But such information does not lend itself easily to such keyword searches because, as Andrew Peck, a US Magistrate Judge and a leading judicial scholar on TAR puts it:

> Lawyers are used to doing keyword searches in “clean” databases, such as Westlaw and Lexis, which use full sentences, full words (not abbreviations), and largely the same words to describe the same concept. E-mail collections are not clean databases. People use different words to describe the same concept; even business e-mails are informal, rampant with misspellings, abbreviations and acronyms.  

TAR illustrates how modern technology has provided a solution for the common lawyer in the conduct of e-discovery.

Broadly speaking there are two approaches to TAR. The first employs “rule bases”. A rule base comprises a large set of rules, drafted by subject matter experts, that are used to classify documents as meeting—or not meeting—the relevant criteria. This has close affinity with the early approach to AI which I have spoken of. The second TAR method employs Big Data techniques. Under this method, a computer “learning algorithm” infers “from example documents, characteristics that indicate relevance or non-relevance”. It then extrapolates from what it has learnt to classify the complete collection. One variant of this is called “continuous active

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38 Andrew Peck, “Search, Forward: Will manual document review and keyword searches be replaced by computer-assisted coding?” Legaltech news (1 October 2011)

learning” (“CAL”). Under this method, “review and training continue in iterative cycles” resulting in the algorithm itself learning and being refined over time.\textsuperscript{40} Both TAR methods have been shown to be able to “equal or exceed the effectiveness of human review”\textsuperscript{41}. Additionally, it has been shown that CAL produces “substantially higher recall and higher precision”\textsuperscript{42} than several other information retrieval methods. TAR thus has the potential to reduce the man hours required to manually sort out documents, and will ultimately lower legal costs associated with discovery. Unsurprisingly, TAR has been gaining prominence in litigation and has received judicial endorsement in both the UK and the US.\textsuperscript{43}

52 Other AI-based problem-solving tools have also ventured into the legal field. For example, IBM’s Watson, famous for its participation in the the US TV quiz show Jeopardy!, has since evidently “gone to law school”. IBM’s Watson can understand complex questions spoken to it in natural language, look through a vast database of stored documents, draw conclusions and offer solutions in natural language.\textsuperscript{44}

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new service-provider called ROSS Intelligence builds on IBM’s Watson to help lawyers do legal research.\textsuperscript{45} Lawyers can ask ROSS legal questions in plain language and ROSS promises to “read[] through the \textit{entire body of law} and return a cited answer and topical readings from legislation, case law and secondary sources”.\textsuperscript{46} Dentons, the world’s largest law firm, has recently signed a deal with ROSS Intelligence.\textsuperscript{47}

\textbf{53} It therefore can no longer be thought outlandish to expect that litigation lawyers handling document-intensive, complex commercial disputes will soon use Big Data to sieve through mounds of paper, determine the relevant documents and then identify trends and insights that might not otherwise be obvious to their human assistants. And the case theories they run will increasingly be informed by insights gleaned from these services. Additionally, they will also have recourse to AI-based problem-solving tools to assist with legal research. It follows that law schools must stay abreast of developments if they are to continue to equip future lawyers to play an involved and effective role in managing complex commercial cases.

\textsuperscript{46} <http://www.rossintelligence.com/> (accessed 22 January 2016).
IV. Gradual convergence in law and judicial practice

The final trend I wish to explore is the move towards convergence in substantive areas of law and judicial practice. This is still an emerging trend but its presence is unmistakable. It may be traced in part to the widespread rise of arbitration which served in part to bring civil and common lawyers into direct contact with and so to learn from one another; and in part to the prevalence of connective technology which has helped to break down many barriers and promote the sharing of knowledge, information and materials. The IBA Rules on the Taking of Evidence is a prime example of an instrument that seeks to breach the gulf between the common and civil law approaches to evidence; and the document production rules of the Singapore International Commercial Court are modelled on this. There has also been growing recognition that the resolution of some types of disputes would benefit from judges playing a more involved role in the fact-gathering process—a traditional hallmark of the civil law tradition—rather than leaving fact-finding entirely to the cut and thrust of the adversarial process.48

The move towards convergence may also be attributed to other factors. Many areas of law, such as intellectual property and anti-trust, are founded upon well-established economic principles that hold true, to some degree at least, across many legal systems. This encourages courts and lawyers to consult decisions from other jurisdictions for inspiration as well as for guidance.

56 At the same time, there is a growing tendency for courts to develop links across borders. Examples of such interconnections include memoranda of understanding which the Supreme Court of Singapore has signed with the Supreme Court of New South Wales and with the New York State courts respectively under which we may refer questions of New South Wales or New York law to the Supreme Court of New South Wales or the New York State courts (as the case may be); periodic dialogues among the commercial judges of Hong Kong, New South Wales and Singapore where cutting-edge issues in commercial litigation are discussed;\(^{49}\) and a joint platform for judicial training and development that the judiciaries of ASEAN have established.\(^{50}\)

57 Law schools have also been increasingly availing their students of international exchange opportunities. For example, the Singapore Management University has partnered with a number of universities all over the world for direct law-to-law exchange including the Keio University Law School. Further, I see from the Keio University Law School website that students enrolled in the LL.M in Global Legal Practice programme to be launched next April will be permitted to complete half of their course credits at one of Keio’s overseas partner universities, which include


renowned schools such as Cornell, Georgetown, UCLA and the University of Washington in the United States, the University of British Columbia in Canada, the Paris Institute of Political Studies or “Sciences Po”, Yonsei in South Korea, Tsinghua in China, the National Taiwan University and the Singapore Management University. In my view, these are encouraging moves and we should look to develop and deepen these inter-jurisdictional connections.

Convergence should be encouraged for a number of reasons. First, convergence in substantive areas of law, to the extent it is possible, reduces the incentive for forum shopping. Second, greater legal consistency across jurisdictions will lower the costs for parties operating in multiple jurisdictions. This in turn encourages the cross border movement of capital. Third, judicial practices are often perfected through a long drawn-out process of experimentation and refinement. No one jurisdiction can possibly have a monopoly on all best practices simply because of the time that it takes to develop and perfect these. Therefore, it is only sensible that lawyers and law schools look beyond their own borders with a view to importing practices that have proven effective elsewhere. Lastly, such convergence should in time extend to developing a broader and more robust appreciation for and fidelity to the rule of law.

V. How to remain relevant in today’s increasingly flat world

59 Let me conclude this address by discussing three broad responses we have initiated in Singapore and offering some thoughts on how legal education would need to respond in order to remain relevant in the face of these trends which I have outlined.

(a) The legal community should leverage technology

60 Let me begin with technology which is something that I believe the legal community must embrace. In Singapore, we established a “Courts of the Future Taskforce” last year, consisting of judges, court administrators and technology experts, and its mandate was to study how we could leverage on technology innovatively. Allow me to share one vision of the courts of the future:

(a) First, some variant of the AI-based technology tools that are used to predict case outcomes could be incorporated to enable parties, especially litigants-in-person, to get an indication of how their disputes in relatively simple matters might be decided before the actual hearing of the matter. This could save both costs and precious judicial resources by promoting settlements.

(b) Second, online dispute resolution or “ODR” services where the process of formulating a solution to a dispute is entirely automated could be incorporated to handle less complex matters. This is already being used to resolve the approximately 60 million disputes that arise
amongst eBay users yearly. These services might not necessarily be entirely automated and could continue to involve a judicial officer in the backroom deciding cases based on paper submissions. But the parties’ attendance could be dispensed with as a general rule, hence significantly reducing costs.

(c) Third, online platforms could be created to allow those who have committed regulatory offences punishable by fines, to plead guilty online.

(d) Fourth, access to justice could be enhanced by creating portals that incorporate AI-based legal problem solving tools like ROSS. Users could ask questions about the law or legal proceedings or legal processes or even administrative matters such as scheduling hearings or conferences using natural language and the systems in turn could respond with easily digestible answers free of legalese.

(e) Fifth, judges could use Big Data to process and analyse materials in complex cases. The sheer volume of materials placed before judges in complex disputes is staggering. It will become increasingly challenging

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for judges to digest all these materials. Yet they will have to do precisely this to render quality decisions. Trial judges are bound to consider the totality of the evidence including contemporaneous objective documentary evidence in making factual findings. Indeed, the best decisions on the facts are those that assess which of the competing case theories provides the best fit for the known objective facts and the documentary evidence. Before too long, smart machines might be able to undertake a preliminary analysis of the material and provide a reasoned identification of the best few theories that the judge can then assess.

61 The courts of the future will likely operate in ways that are dramatically different than today’s courts. Both judges and lawyers alike will have to recognise this reality and start thinking about how we might embrace technology so that it is developed and deployed for our benefit. This requires a change of mindset and a willingness to work with technology experts today so that we might be ready for tomorrow. Importantly, law schools will have to get on board so that our future lawyers too are ready for tomorrow.

(b) **Countries should create specialised commercial courts**

62 Second, I expect we will see greater use of specialised commercial courts with bespoke procedures for the resolution of international commercial disputes.
Arbitration first grew in prominence because the parties that were engaged in transnational disputes were doubtful that they would receive hearings that were conducted fairly and expeditiously in local courts before sophisticated judges. In a sense, users migrated to arbitration because of the actual or perceived shortcomings of national courts, and some of these persist.

I believe that dedicated commercial courts can address many of the problems associated with litigation in national courts and, as it happens, also some of those associated with arbitration. Models of such courts already exist in the London Commercial Court, the Delaware Court of Chancery, the Commercial Court of the Supreme Court of Victoria and the Dubai International Financial Centre (“DIFC”) Courts, just to name a few. Although of a more recent vintage, the Singapore International Commercial Court (“SICC”) stands in this group.

Adjudication in such purpose-built national courts would not only meet the demand for reliable and sophisticated justice, but it could also bring about benefits over arbitration:

(a) First, disputes are decided by judges who are not appointed by the parties and have no financial interest in the number of cases they hear or how long they are engaged.

(b) Second, these judges are supported by the administrative apparatus of the court to monitor, manage and move cases along expeditiously.
Third, judges may exercise coercive powers to join third parties to proceedings even though such parties might not have consented or submitted to the court’s jurisdiction.\(^53\) This is particularly important given the typical multi-party contracting arrangements we frequently see in transnational cases.

Fourth, the availability of appeals means that errors of fact and/or law can be corrected. These usually occur at first instance because the issues in dispute have not been sufficiently distilled and crystallised. Issues tend to be distilled and sharpened as a case progresses through the appellate structure. The possibility of appeals can be a particular advantage if appeals are disposed of expeditiously.

Fifth, the availability of appeals may paradoxically also work to keep costs down by countering the impulse that parties demonstrate towards front-loading in arbitral proceedings.

Lastly, adjudication in national courts can result in published judgments that are not only determinative of the dispute between the parties but will also be instructive for members of the wider business community.

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\(^53\) For the SICC, see O 110 r 9 of the Rules of Court (Cap 322, R 5, 2014 Rev Ed). For the DIFC Courts, see rule 20.7 of the Rules of the DIFC Courts.
The SICC promises its users some benefits beyond these and I mention just a few of them here.

First, with an emphasis on flexibility, parties may by consent agree that evidential rules other than those in Singapore’s Evidence Act\textsuperscript{54} shall be applicable.\textsuperscript{55} Parties can also apply to have their cases heard \textit{in camera}. The court will consider any agreement between the parties and whether the case has a “substantial connection” to Singapore in deciding whether that should be allowed.\textsuperscript{56} Additionally, SICC cases are subject to simplified discovery rules as I have mentioned. There is no process of “general discovery” in the SICC.

Second, the SICC is international not just in its jurisdiction, but in its outlook and make-up as well. It is staffed not only by our own judges but also by jurists from several leading Commonwealth and civil law jurisdictions.\textsuperscript{57} Additionally, foreign lawyers enjoy liberal rights of audience before the SICC. The involvement of counsel in the proceedings also makes it possible for the court to decide questions of foreign

\textsuperscript{54} (Cap 97, 1997 Rev Ed).
\textsuperscript{55} O 110, r 23(1) of the Rules of Court (Cap 322, R 5, 2014 Rev Ed).
\textsuperscript{56} O 110, r 30(1) and (2) read with O 110, r 1(2)(f) (Cap 322, R 5, 2014 Rev Ed).
law on the basis of legal submissions instead of by adducing expert evidence to prove foreign law.\(^{58}\)

69 Third, given the vast amount of commercial experience that the judges on the SICC panel have, they are able to identify key issues early on in the proceedings, propose practical solutions and monitor the cases in the SICC through case management conferences. This leads ultimately to more expeditious and cost-effective proceedings. This is reflected in our first two SICC cases, which came on for trial in November last year and February this year respectively. The trials for both cases finished ahead of schedule as a result of the judges’ active and effective management.

\(\textbf{(c) We should encourage convergence}\)

70 Allow me to move to the third broad response, namely convergence. I have already mentioned the emergence of formal platforms for judges from multiple jurisdictions to interact.

71 But Judges cannot be expected to shoulder the work of bringing about convergence on their own. Practitioners, academics and business people must play their part if meaningful and effective convergence is to occur. We launched the Asian Business Law Institute ("ABLI") in Singapore in January to facilitate precisely

The ABLI is a permanent research institute which, at its heart, is concerned with stimulating convergence in the region. It aspires to do for Asia what other institutes such as the UNCITRAL, the European Legal Institute and American Law Institute ("ALI") and have done elsewhere.

This has been an especially timely step in the light of recent watershed events that position Asia on the precipice of an unprecedented degree of inter-connectivity. Among the key developments, at the turn of the year, we witnessed the formation of the ASEAN Economic Community ("AEC") which transforms the 10-member ASEAN grouping into a single market and production base. The AEC promises to be an important boost to the competitiveness and connectivity of ASEAN as a whole.

Second, China officially launched the Asian Infrastructure Investment Bank ("AIIB") in June 2015 to meet the need for infrastructure developments in Asia. The AIIB is an important component in China’s “One Belt, One Road” regional infrastructure plan which aims to expand rail, road and maritime transport links between China, central Asia, the Middle East and Europe. Lastly, representatives from a dozen countries in the Asia-Pacific rim concluded the Trans-Pacific Partnership ("TPP") trade deal in October 2015. The TPP promises to slash tariffs for some important

59 Sundaresh Menon, "Doing Business Across Asia: Legal Convergence In An Asian Century" (21 January 2016)
industries, but its particular promise lies in the elimination of non-tariff barriers, such as onerous customs procedures and buy-domestic rules for government agencies, and in the liberalisation of trade in services.  

73 The law has been described as the handmaiden of commerce. As economic integration continues, the law must progressively be harmonised lest it becomes, in the words of the late Lord Bingham, “an adversary, a fetter, or an irritant” to commerce.  

74 Looking ahead, I believe we will go beyond harmonisation in areas of law and judicial practice. Eventually, we could reach a stage where joint-hearings might be conducted involving different national courts. This will not be an entirely novel idea. The Guidelines for Court-to-Court Communication in Cross-border Cases promulgated by the ALI already contains a provision governing the conduct of joint hearings. The Guidelines state that in such joint hearings, each court may simultaneously hear the proceedings in the other court. The material placed before one court is made available to the other. Counsel appearing before one court, can with the foreign court's permission, appear there as well, and courts are permitted to

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communicate with each other in advance of and subsequent to the hearing with or without counsel being present. Joint hearings have already been conducted by Canadian and US courts in restructuring applications.\textsuperscript{65} And at the Fourth Global Forum on Intellectual Property held in Singapore in 2013, Chief Judge Randall Rader of the US Court of Appeals for the Federal Circuit spoke about an IP case in which identical results were reached in a patent dispute that was going on in the US, UK and Germany because the national judges discussed the ways in which they might reach a common result, subject to the limitations of their national laws.\textsuperscript{66} Developments of this sort exemplify the collective endeavour of the legal systems of the world to provide adjudicative services that are fit-for-purpose in the 21\textsuperscript{st} century.

\textbf{(d) The implications for legal education}

75 \textit{So what are the implications of all these changes for legal education?}

76 \textit{To put it simply, legal education too will have to respond to these legal trends that are a feature and a consequence of our flattening world. I mention just three possible responses here.}

\textsuperscript{65} \textit{Eg, in PSINet Ltd. et al, Court File No 01-CL-4155 ("PSINet case"); for more details on the PSINet case see Alex L MacFarlane & Lisa H Kerbel Caplan, “Harmonizing Cross-Border Restructuring” <http://www.mcmillan.ca/Files/AMacFarlane_LKerbelCaplan_HarmonizingCrossBorderRestructuring_0405FR.pdf> (accessed 22 January 2016).}

First, there should be greater emphasis on comparative law. This is necessary both in anticipation of the convergence of laws and also to equip future lawyers with the knowledge and skills sets to be “global practitioners” in today’s world where disputes are increasingly resolved through international arbitration and specialised international commercial courts.

Second, sufficient focus should be given to public international law. With the privatisation of public international law, the proliferation of investor-state arbitration and the remedies afforded to private actors through international trade law, the modern commercial lawyer cannot thrive without a working knowledge of public international law.

Third, technology will have to be taught, not as a discrete subject matter but as something which is part and parcel of a lawyer’s essential skills set; the practice of law today requires a good understanding of and ability to use technology.

VI. Conclusion

ROSS Intelligence, the “intelligent” legal problem solving service provider prominently displays the following quotation from President John F Kennedy on its website:

Change is the law of life and those who look only to the past or present are certain to miss the future.

I believe that the caution not to become transfixed with past or present ways of doing things is as much applicable to lawyers and law schools as it is to anyone
else. I think we must not “miss the future”; rather, we must choose instead to be equipped so that we might meet it successfully.

81 Keio University Law School’s establishment of the LL.M Program in Global Legal Practice, which aims to train students to be globally active legal professionals, is a timely step. I see from the tentative course outline available on the Law School’s website that the LL.M Program will offer courses such as “International Commercial Transactions”, “Cross-Border Litigation”, “International Commercial Arbitration”, “Legal Theory of Globalization”, and a variety of comparative law subjects, among others. These are clear responses to the trends which are emerging in today’s legal landscape.

82 The LL.M Program which will be taught in English is the first of its kind within a Japanese law school, and is consistent with Keio University Law School’s founding principles of “internationalism, multidisciplinarism and pioneerism”. I have no doubt that with Keio University Law School’s strong track record of internationalism, the LL.M Program will make a valuable contribution to the effort to successfully equip future lawyers so as to enable them to meet the challenges of the global village that we all belong to.

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It has been a great pleasure for me to deliver this address. Thank you. I wish you all the very best in your endeavours!