

New Technologies and the Disruption of Legal Education

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My topic is The Role of New Technologies on the Disruption of Legal Education. New technologies are emerging around the world and they are disrupting legal practice in important ways. The phrase “disrupting”, some of you may be familiar with, is often used in connection with the phrase that famous Business School professor at Harvard, Clayton Christensen more realized by calling “disruptive innovation”, as examples of innovative products, innovative systems that disrupt the existing market.

So this does mean that robots will replace lawyers, as the popular notion suggests? Like others, I think that this has been widely exaggerated. There's no question that the development of new technologies including machine learning, artificial intelligence, blockchain, and many other examples have disrupted legal practice in important clustered ways. In Richard Susskind's influential book, *Tomorrow's Lawyers*, he writes “Individually, these existing and emerging systems will challenge and change the way in which certain legal services are delivered. Collectively, they will transform the entire legal landscape.” In my presentation, I want to talk about some ways which law schools are adapting to these changes and should be adapted to these changes. And take cognizance of the fact that this is an international conference, talking about not solely by reference to the system which I'm familiar with, the United States, but how these respective new technologies will impact law schools around the globe.

I should begin by saying there is no such thing called global legal education. There are many varied schemes of legal education in different countries throughout the world. I think we can all agree that whatever our system and whatever our particular configuration of educational programme, and our main objective and all of our world's law schools is to train the new generation of lawyers to practice in the 21st Century. Now twenty years into this new century, we all have a commitment

to educating and training lawyers who will be at representation and advocacy. And of course also responsible for making sure and maintaining their ethical duties and obligations at the highest level.

First, I want to put aside the debate about the configuration of educational programmes. We all know that legal education in most countries throughout the world is undergraduate, as it is in your system. So that your LLB or equivalent is required the foundational education for lawyers. We in the United States, and in a few other countries, have legal education at the postgraduate level. But rather than emphasize the difference in the educational models, let us agree on this: They come to the same point, and that is the responsibility of educating lawyers for 21st Century legal practice. And this is deeply tied to the issues of new technologies and their impact on legal practice.

The conversation about new technology and disruptive technologies has to be understood in the context of the changing dynamics of how different establish the credentials for legal education and for becoming a lawyer. There's a classic debate that, to be sure not unique to the United States, about whether to what extent law schools are responsible for producing so-called "practice ready lawyers." Should we be emphasizing practical skills or foundational and fundamental legal knowledge, through close to attention to doctrine and principles? Legal education throughout the world struggles with this question and therefore with how best to articulate the main objectives of legal education.

One important trend in global education is the increasing appreciation for the multidisciplinary nature of legal knowledge and thus legal education. In the United States, we often emphasize the so-called "law and" movement, whether it is law and economics, law and philosophy, law and history, etc. has become rather routine even though we often disagree about what should follow in. What we agree on is that law is not a silo, that is, it is not field that can be separated inexorably from other fields of knowledge. So our programme and process of legal education. Legal knowledge throughout the world is increasingly interdisciplinary in focus and law schools like yours, like HKU, law schools like mine, Northwestern, and so many law schools around the world, are developing curriculum and adapting programmes in light of this multidisciplinary trend and impact.

Let me now turn to technologies more specifically. What are some of these disruptive technologies? Most, if not all, of the significant disruptive technologies that are impacting legal practice and legal education emerge from the availability and the pertinence of “big data,” data that simply was not readily available and usable in years past. Nor were various heuristics and algorithms developed very recently to do something, devices that enable us to use effectively big data. So just to take an example, we have had for many decades data about judicial outcomes, about lawyers’ performance of cases, about the content of legal briefs and such. However, there weren’t the technological mechanisms, nor even the incentives to aggregate and use data that would assist lawyers, clients, legal researchers, students, and others. That has changed enormously, and now the availability of fast and exponentially increasing computing power has enabled us to use statistics, and our fingertips on our cell phones, in our laptops, has enabled us to use artificial intelligence and predictive analytics in modern times and in modern ways.

There is basic legal technology that’s been around for a while and has become a rather ordinary part of how we use information in law schools and in legal practice, for example, word processing, Excel, Cloud computing, etc. But it is really the advanced technology that’s the potential game changer. Advancements in machine learning and artificial intelligence more generally can disrupt legal practice in meaningful ways. Indeed, some of this disruption is already taking place, and law schools across the globe are steadily expanding students’ exposure to these technologies and their use (and misuse).

So what do we need to talk about artificial intelligence? Machine intelligence is in contrast to the natural intelligence (NI) displayed by humans and other animals. In terms of application to what most lawyers do, it’s really machine learning, natural language processing and expert systems, either in tandem, in combination or separately, that are impacting and even disrupting the modern practice of law. Most of the use of artificial intelligence now in legal practice is what has been described as rules based systems. The basic idea is human being sets the parameter and the conditions and the rules to follow, and it is lawyers who are more familiar with setting the rules and follow. Consider the example of TurboTax. This has become a common method by which individuals in many countries, certainly very much of the United States, to do their taxes. This

software begins with the center parameters that are set by what our tax lawyers require. So that is not something generated by machine learning, it is generated by human intelligence. But what TurboTax does is enable us to a sort of decision tree, using basic machine learning-generated algorithms to develop conclusions drawn from legal rules.

To bring this back to the practice of law, there are already machine learning applications to legal practice in discovery, in due diligence, in research, in litigation. In the United States, many courts have permitted the use of algorithms to generate predictive analytics to allow millions of litigation to sample across these voluminous documents, and save hundreds if not thousands of man hours from discovery, in order to engage in, what is after all, the machine learning generated series of algorithms. Certainly compliance in the law has been affecting in variety ways. And the frontier, the real interesting frontier, has to be one legal prediction. There has been a rising throughout the world in recent years, new kinds of companies that have developed models or litigation finance to enable the significant investment in litigation, because the ability of individuals and companies to use machine learning and AI to make legal predictions in writing.

Not all countries and not all systems have been thrilled with these development. It was just last summer that the country of France issued a remarkable law significantly limited the criminal penalty on individuals who would use data analytics and predictive analytics to predict decisions by judges in actual cases. So this is controversial to be sure, but nonetheless, we know that the achievement in AI can and does have an impact on legal practice, and we expect only more impact to come. So there is of course a lot of debate about the use of machine learning, hardly a day goes by when there's not an article features a headline like this, "Lawyers could be the next profession to be replaced by computers", or another one on The New York Times, "Armies of expensive lawyers, replaced by cheaper software". So you can imagine the temperature goes up when the topic of automation and machine learning is introduced, particularly those who lack the nuance of understanding exactly where technology can be disrupted, and where it really is sparking in disruptive in any significant way. I like this quotation, "Relationship with AI needs to be seen like switching to autopilot for certain low-level tasks. This is quite different than submitting to new robot overlords." So in class I say, "Choose what you think of the robots, if you think that robots are going to be impacting lawyers, is this your model?" "What do you think is going to happen

when the robot overloads and is kind of taking over legal practice, or is there a sweeter, nicer and friendlier model of robots?" I suppose it really depends on many factors not limited to technology.

What does all this mean for law school" Wherever we are in the world, we look to develop in our students' modern skills for a modern world. We use in these tasks multidisciplinary knowledge, therefore educating our future lawyers to be creative problem solvers. We want our students to develop an entrepreneurial mindset, which enables them to lead not simply to follow on the past. And certainly we want to give our students a public service orientation, so they see themselves as acting for the public interest. And, last but not least, we want our students to graduate with meaningful competency in technology and its use. These are, at the minimum, the imperatives of modern legal education. We want to develop the learning infrastructure that enables our students to obtain new frontiers of knowledge and engage in synthetic learning. And we want to have technology education through what Professor Deborah Rhode at the Stanford Law School has called, the "pervasive method". She was talking here about professional responsibilities and legal ethics, but I think the same metaphor can be applied to technology education. I should say what that means is, it's not enough to simply say we're going to expect our students to take one or two courses in law and technology before they graduate. But technology should infuse the curriculum throughout our programmes, so that you really understand what it means in the real world. And of course this is a conference I know about experiential education and you have many distinguished practitioners from around the world joining with you. I think As I come to the end of my remarks, I want to reinforce the point that it is not enough to talk about the theory of technology, or even some of the practical consequences. It is really about applied knowledge through simulations and examinations of the real world. And, although this is perhaps a different topic for a different set of remarks, we should also be looking to develop in our students global competencies, so that they can navigate an increasingly complex and interconnected world.

Thank you for giving me the opportunity to share with you some thoughts about new legal technologies and global legal education. I am honored to be part of this symposium and to be able to participate in these very interesting and valuable initiatives at the University of Hong Kong's outstanding law school.