2016: Trump, Brexit and the Impact of AI on the Course of Legal Service Reform
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If 2015 was the year that returned technology, such as artificial intelligence (AI), to the front burner of popular discourse, 2016 is turning out to be a year that reminds us that disruption, even if it makes sense and is for the greater good, should not leave people behind.

First, let's consider the current path that reform in legal services, part of it driven by technology, has been following.

The last decade has seen numerous developments and changes in the way legal services are delivered and purchased. Consider a few examples:

• unbundling of legal services across both in-house and external counsel as well as across other service providers;
• modularization of methods respecting collecting, categorizing, structuring, reviewing and reporting from documents and data;
• legal project management as a discipline and the increasing presence of project management professionals;
• standardization and systematization of components and processes of these solutions (e.g., development of templates, input/output routines and even decision trees in the knowledge management function);
• "hard-wiring" legal advice and processes such as contracting into software.

The examples so far are best understood as tools to enhance legal services delivery and even legal practice. However, signs of disruption may lie ahead for the actual delivery of legal services as practitioners in the field embark on a gradual shift along a continuum between labor and capital (in the form of software). The basic technology of lawyers today (email, document processing, document management) has been supporting revenue or value generation, but the technology itself is not a revenue generator. This is beginning to change.

Automation of certain processes, considered elements of legal practice, starts to show law firms and legal departments alike the value of alternative solutions to undertake certain tasks, and thus opportunities to redeploy legal experts to focus on higher value activities. Also it is fair game for entrepreneurs as well as law-savvy clients to harness data concerning legal risks and odds to inform and enhance decision making and in many cases direct legal service activities toward better efficacy from the perspective of the client, whether preventive or outright value generating. This is further aided by digitization and structuring of data by expanded

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collection of data through the emerging internet of things and development of these informative data sets to train algorithms to accelerate this process.

Technology, fueled by progress in cognitive science, is now creating learning algorithms and taking the above process of automation of knowledge and solutions to the second order. Some may refer to this technology as AI.[2] Without attempting to define AI precisely, one can appreciate the role of AI in developing machines that can tackle both language comprehension and language generation as well as problem solving, through deductive and inductive reasoning. Researchers in the field hope to develop one day machines that can automate the process of automation itself and create self-teaching machines. For a more detailed discussion of these possibilities, please refer to an article by my business partner, Bill Novomisle, "*Musings on the Future of Artificial Intelligence and the Law, Part 1*".

While examples of AI in the law are only beginning to appear, it does seem that we have reached a tipping point for the technology. ROSS, billed as the world's first artificially intelligent lawyer (but really just a very sophisticated legal research engine) has been "hired" by two AmLaw 100 law firms. This is analogous to the news a few years ago that Google's AI algorithm for discerning street names and numbers was instrumental in the automation of street mapping. Both events brought audiences a "future is now" moment. These achievements cannot be compared with with the triumph of a program powered by Google's Deep Mind over the world champion of the extremely complex strategy game of Go in 2016, or similar toppling of champions in international chess (IBM's Deep Blue v. Kasparov) in 1997 and the Jeopardy game (IBM's Watson technology v. human Jeopardy champions) in 2011. However, by making available the Watson technology in R&D in projects in the legal space such as ROSS, it would not be far from ascertaining that IBM may have similar ambitions.

While we should pay attention to the cautionary views espoused by great (human!) minds like Stephen Hawking and Elon Musk, we must also acknowledge that AI is both actively implemented and rapidly developing in the world today. As such, our task is to determine what we as both humans and lawyers (at the risk of being viewed by some as an oxymoronic construction) can do to stay in the cockpit and navigate this new landscape in which we travel.

For those who are convinced by the evidence of this "Long March", what remains to be determined is the pace of this trend. Also in question is how these changes will

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[2] A precise definition of AI continues to be debated for reasons such as 1) AI's capabilities and our expectations change over time, 2) AI's potential to address subject matters that are beyond human comprehension, 3) great swaths of the domain of human thoughts and choices remain outside the grasp of humans themselves even with the help of today's technology.

be distributed across a spectrum of possibilities ranging between bespoke human solutions and standardized solutions, or systemized and packaged products. Furthermore, will these developments lead to more interactions between humans and machines, or will the impact of this technology take the form of successive floods of automation, leaving behind islands of bespoke human activities?

Trump and Brexit illustrate the challenges that arise when advances that benefit society overall do not distribute "evenly" the costs and benefits of those advances. Whether it is over free trade or immigration, we have heard the complaints and felt the anger of a population segment that has experienced a net adverse impact of their leader's policy choices. Applying this lesson to AI and legal services reform, the question becomes how to manage advances in productivity caused by AI against the ironic side-effect of making humans appear less productive. This means figuring out:

- how to share the benefits of automation
- how to equip people who are displaced by such advances
- how to find newer ways for people to work with newer machines
- how to identify market and societal needs for capabilities that remain uniquely human and direct entrepreneurial energies toward training and connecting workers into such needs.

Future generations will likely see our times as the tipping point in the transition from the Industrial Age to the Information Age. Transitions rarely transpire without some pain. The post-2008 economic recovery created its share of jobs, but automation seems to be replacing overseas factories as the source of dampening general wage increases. However, backlashes are inevitable, and incumbents will always focus the cause of their complaints on immigrants, foreign substitutes, or in the case of the legal profession, inadequacies of any solutions in the legal space other than the status quo. See the article by Steven Liew, *"'Software is eating the world.'… And the law is still just playing catch-up*". Particularly where professional associations represent entrenched interests, a sense of being left behind and offended by mere suggestions of more efficient and efficacious delivery of services and solutions is being expressed. Unless these entrenched interests are encouraged to join the journey, expect to see ring fencing through even more protective rules, this time against the march of technology, ironically in the name of the interest of the society.

Until society and businesses, which are ultimately the beneficiaries and customers of legal services, appreciate and recognize the necessity and benefits of the changes, the leaders who will take the legal service industry into the 21st Century should heed the principal lessons from Trump/Brexit.

1. No amount of rationale for the greater good can ameliorate the discontent of people who feel left behind. Some of this discontent may take the form of anger to

bring down the ship even if it includes harming one's own interest (cutting one's nose to spite one's face).
2. A leadership that is disconnected from a significant part of the polity, even in the course of pursuing something that they may even genuinely believe as the greater good, will fail.

Enough ink has been spilled over the latest epic struggles in capitalist democracies on both sides of the Atlantic. The Trump and the Sanders campaigns in different ways have been associated with the voices of different segments of the disenfranchised, and the voice of Brexit, muddled as it might have been, remains a shot heard around the world, with reverberations to follow. The point of this article is not to contribute to the flood of ink yet to wash ashore, but to convey a message. Before we direct our fire at people who embody these voices or parlay their fortunes on the back of this surge of angry sentiment, a reminder of the root cause is useful.

Whether it is globalization, monetary policies (translation: the great debt cycle), substitution by software and automation (and soon "smarter" versions connected to the physical world) or a combination of these and other factors, changes cannot leave large numbers of displaced people behind. Kicking or screaming, we have only one direction to travel: forward, and in the same boat.

A detailed discussion of the principles of affecting change in the current legal profession can be found in my previous article, "*The legal profession's Kodak moment? – Part 2*". In essence, these principles call for a balance between a dynamic search for the industry's reason for existence and working with existing players in the market (and even some unsuspecting law students and new lawyers) as we chart the course of legal service enterprises. However, the case of the legal services market differs from socio-economic politics in that it is a market rather than a democracy, and the voice of the customer, increasingly sophisticated, is the driver.

The changes that we are imagining and anticipating will transpire in one form or another, or perhaps more accurately in a succession of experiments and enterprises many of which will expire or fail. But the truth remains that if we do not participate in shaping change, others will drive that, with or without us.

Those who will lead this transformation must to the maximum extent possible engage the participation and involvement those whose places in the industry will be impacted. To do otherwise is to court backlash from entrenched interests. Engagement should not be confused with accommodations or dilutions. Effective engagement will only make the changes more robust and sustainable, and therefore more strategic.

Here are some examples of ways to leverage the current strengths of the legal profession to build the strongest and most engaged future possible.

- Engaging retiring and new lawyers to work with business consultants, process designers and software writers to develop pipelines of products to make delivery of certain legal services more efficient, and at the same time provide off-ramps for spotted issues to be escalated to a practitioner, thereby enlarging the pie rather than purely "cannibalizing" existing practice.
- Devising structures that enable a symbiosis between providers of capital (currently in the form of software and systems) and labor (artisanal lawyers) so that a transitional generation of lawyers can participate in the fruits of this capital which they will help create and maintain while providing advice as a result of clients usage of these systems; in return, the lawyers will pay the owners of these systems a usage fee.
- Encouraging and creating platforms to collect, aggregate and analyze data from clients for the purpose of helping clients on approaches to specific risks involving or centered on legal issues; teaming current lawyers with experts with needed skills outside the legal field to understand client's broader and deeper purposes and devise the data analytics called for by the general and specific cases.
- Finding ways to develop data-driven approaches to traditional and alternative solutions to legal risks and help bring transparencies to clients in the efficacies of various options - with a view to bring lawyers into the same team to solve the overall problem rather than only on aspects that are perceived to "legal" problems.

These are merely a few suggestions for engaging the full spectrum of legal technologists and practitioners together to shape the new AI-enhanced future to create the most robust and sustainable future possible. What would you suggest to transform this Kodak Moment into our shining moment?