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I. Envisioning the AI-Enabled Legal Team of the Future

A. Abstract

Artificial intelligence (AI) can be found again in the front row of technology investment and development. Perhaps better standing for "augmented intelligence," AI tools that employ machine learning, natural language processing and expert systems, among others, with the power to handle big data, are earning a place at the legal team's table.

Now we must bring to the table the people with the necessary skills and understanding to incorporate AI in legal practice. They need to participate in the organization and delivery of legal services from the beginning of engagements and become active members of project teams. There emerged from the ALT conference a vision of a less hierarchical team, with a broader set of skills and a greater degree of client involvement than the traditional phalanx of rainmaker partner, engagement partner, associate and support staff.

B. Introducing AI

A discussion of artificial intelligence should start with a common understanding of the real tools and capabilities covered by AI. The presenters offered this breakdown:

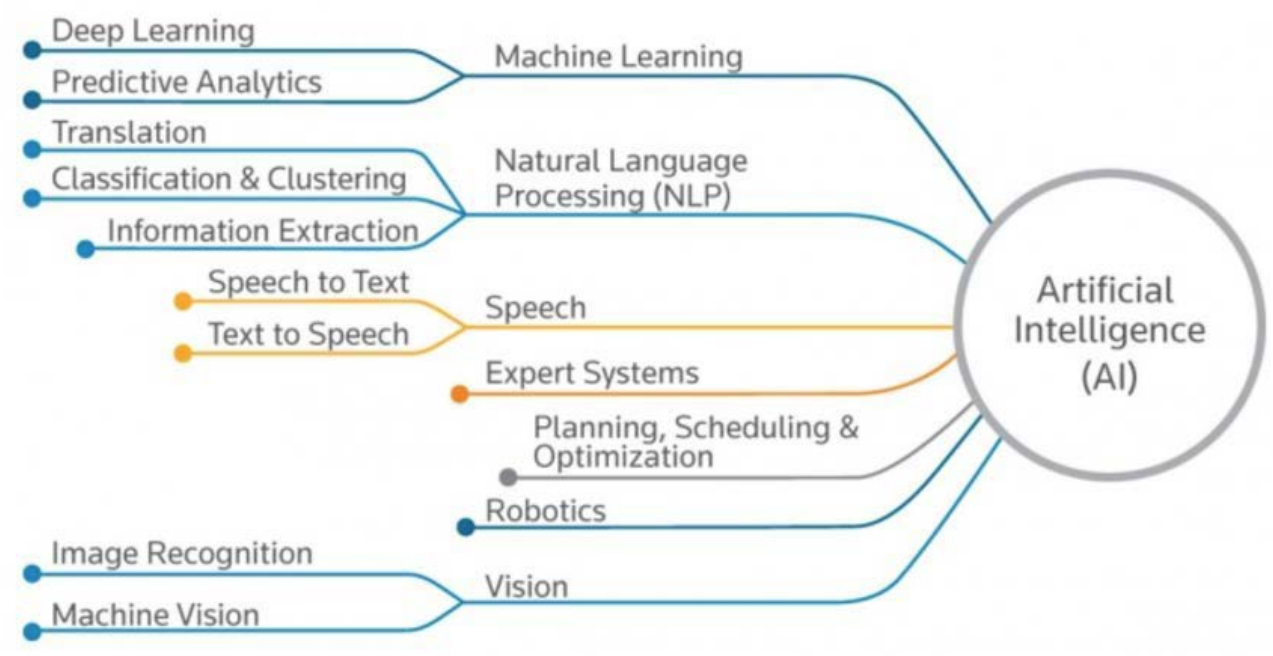

Figure 1. Michael Mills co-founder and chief strategy officer, Neota Logic, "Artificial Intelligence in Law – The State of Play in 2015," Legal IT Insider, added November 3, 2015.

C. Insights about Employing AI in Law Practice

1. Insights from the ALT Session

The experience of lawyers in the last 10 to 15 years or so with e-discovery is expected to become a model for other practice areas as AI-augmented practice tools become available for other practice specialties. E-discovery lawyers have been forced to understand and employ predictive coding tools to cope with the volume of content presented by e-discovery, the cost-prohibitive character of review without AI/machine learning and the results of studies that showed that predictive coding could have a higher accuracy than human coding, at least for initial review and selection.

Is there a broader range of lawyers ready to employ AI tools? If they are not ready – able to procure, deploy and employ tools today – are they open to consideration? The ALT participants discussed a generational gap or distinction in this readiness. As a rough generalization, senior lawyers (age 50+) are much less open to learning something new. They remain skeptical and hope to continue to practice as they have for the remainder of their career. At the young end – again as a generalization – lawyers entering and recently entered into practice have little or no patience for spending the first two years of their career devoted to document reviews. Combining a strong desire to perform higher-level legal work sooner and a much higher facility with technology than their seniors, new lawyers welcome the use of AI technologies and see no reason not to employ it. Now, though, those entering lawyers do not have the power to control the acquisition and employment of new tools, although they can willingly adopt them if given the opportunity.

Can skills and the enthusiasm for technology of the millennial generation be harnessed by legal technologists? The time, energy and thought focus for many of the legal technologists are the senior partners who often remain reluctant to embrace new technology. The senior lawyers retain decision-making power and especially the power of the purse.

The legal design thinking presented at ALT offers a contrasting approach. For example, Margaret Hagen prompted a conversation in which, at least for the purposes of discussion, constraints should be ignored. Participants were asked what they would do if there were no constraints – such as those of costs, of acceptance and of willingness to change. While it is important and necessary to bring back the constraints before approving a large-scale plan, the temporary removal of constraints in the discussion allows consideration of possibilities and issues not blocked by the actual or perceived reluctance of senior lawyers.

One should look for the bridge generation – the 40ish entrepreneurial partners – such as the West Coast lawyers working with high-tech clients. It could take 15 to 20 years of such lawyers incorporating the tools now maturing in their practice before we can see the full effects. "If you are going to represent Tesla and you are not thinking about robotics and AI, [the clients] are going to think you have two heads," said interviewee Sally Gonzalez.

The presenters cited a draft study entitled "Can Robots Be Lawyers? Computers, Lawyers and the Practice of Law" by Dana Remus, professor of law at University of North Carolina School of Law, and Frank Levy, professor emeritus, Department of Urban Studies and Planning, Massachusetts Institute of Technology.[1]

There is a consensus – supported by the Can Robots Be Lawyers? study – that AI tools are more likely to replace younger associates and paralegals than senior lawyers. If senior lawyers embrace the tools and achieve that business/practice model, what will become of the succession pyramid in law practice development and long-term financial success? How will the partner of the future emerge? Does that lead back to a more one-on-one mentoring model, with the fewer associates relieved of the level of drudgery of the explosion of document review/due diligence types of tasks in favor of more wisdom/experience/judgment tasks? Will law practices adopt it?

How can a firm pay for the costs of AI? If AI can replace some number of new associates performing tasks that are susceptible to augmented intelligence assistance, the salaries of those associates become an available resource. In a practice model where revenues are based on billed time alone, this replacement loses revenue. In a practice where the revenues are

[1] This paper is supposed to be published in the Georgetown Journal of Legal Ethics, but there is no indication yet that has occurred.

based on an alternative fee structure tied to performance of a task or outcome achieved, the reduced cost of associate labor can be a real gain.

2. Insights from "Can Robots Be Lawyers?"

The overall judgment of the "Can Robots Be Lawyers?" study is that "artificial intelligence" – in the broadest sense – could have a measurable impact on demand for lawyers' time, with the impact concentrated on a few areas of practice where it is strongest, but that the impact is smaller than popular accounts – or product and services advertising – would suggest. Even in these relatively strongly affected areas, the role of the automated tools and procedures is best understood as an augmentation of the unaided skills of lawyers, not a full replacement for them.

The paper reviews several practice areas for level of impact of automation and for the proportion of billable time spent by partners and associates in these categories of work. The automation impact levels reflect the authors' judgment of the impacts. The billable time assignments are based on time invoiced between 2012 and early 2015, gathered by Sky Analytics and categorized by the American Bar Association Uniform Task-Based Management System. The tier 1 firms in the chart in Figure 7 are those with 1,000 lawyers or more.

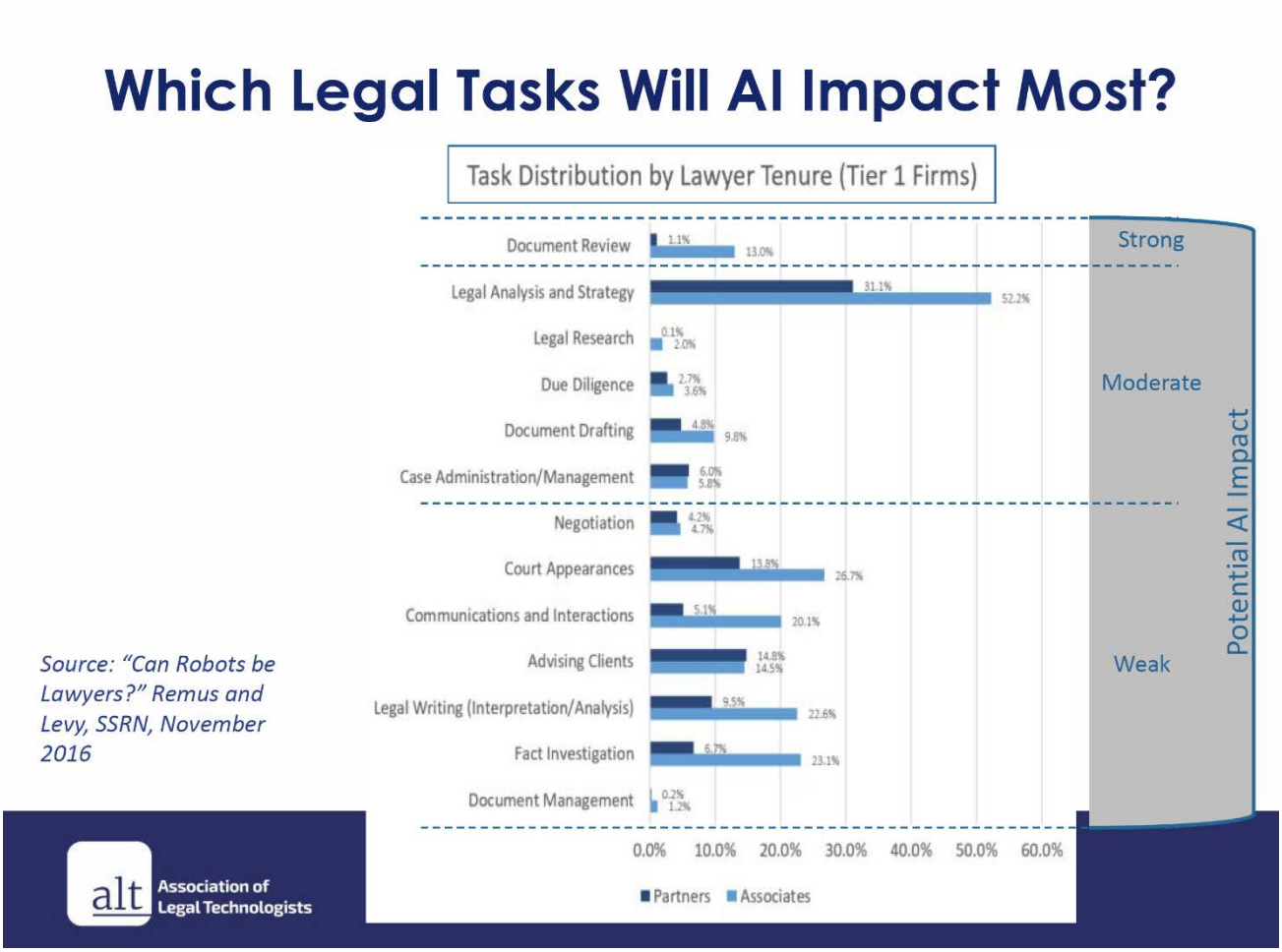

Figure 2. Impact of AI on legal tasks.

The strongest impact described in the study is for **document review**. It is the only area of practice for which the authors describe the impact as strong. Predictive coding using machine-learning algorithms has been shown by studies that have been accepted by some courts as achieving higher rates of recall and precision in document review than human lawyers.

With those results, a meaningful portion of the tasks performed by human lawyers in document review may be replaced by the predictive coding review. That hardly turns document review into a robot-only process. Human lawyers must classify sample sets of documents, evaluate the case to select a predictive coding technology and protocol and prepare to defend the results if necessary.

Finally, predictive coding procedures report ambiguous results, as well as ones for which the probability of meeting the coding rule is clearly high or low. These require human resolution.

The authors conclude that several practice categories will experience a "moderate" employment effect. **Due diligence** includes document review as a significant part of its activity. Where it relates to document review in discovery, the issues to be addressed are likely to be structured by those critical to the resolution of the dispute. The purpose of the predictive coding is not to dispose of the issue, but to find documents that may be responsive to it. In due diligence, the objectives may include structured elements – such as finding contractual obligations that can be specified in advance – and unstructured ones – searching for unexpected or surprising information. The latter resists automation – the analysis of these issues involves an array of associations, evaluation of context and prior experience. So far, these capabilities have not become a programmed repertoire.

Document drafting is another category with moderate effect, according to this study. Forms have already been practice tools. For some situations, it is possible to program the logic of the form fully, so long as a human inputs key information. This has displaced some lawyer work.

Legal research is also scored moderate.

Legal writing is scored as subject to weak impact. Highly structured writing, such as summarizing a baseball game, can be automated by a set of rules. Persuasive or analytical arguments are not candidates for rules-based automation.

D. Teamwork

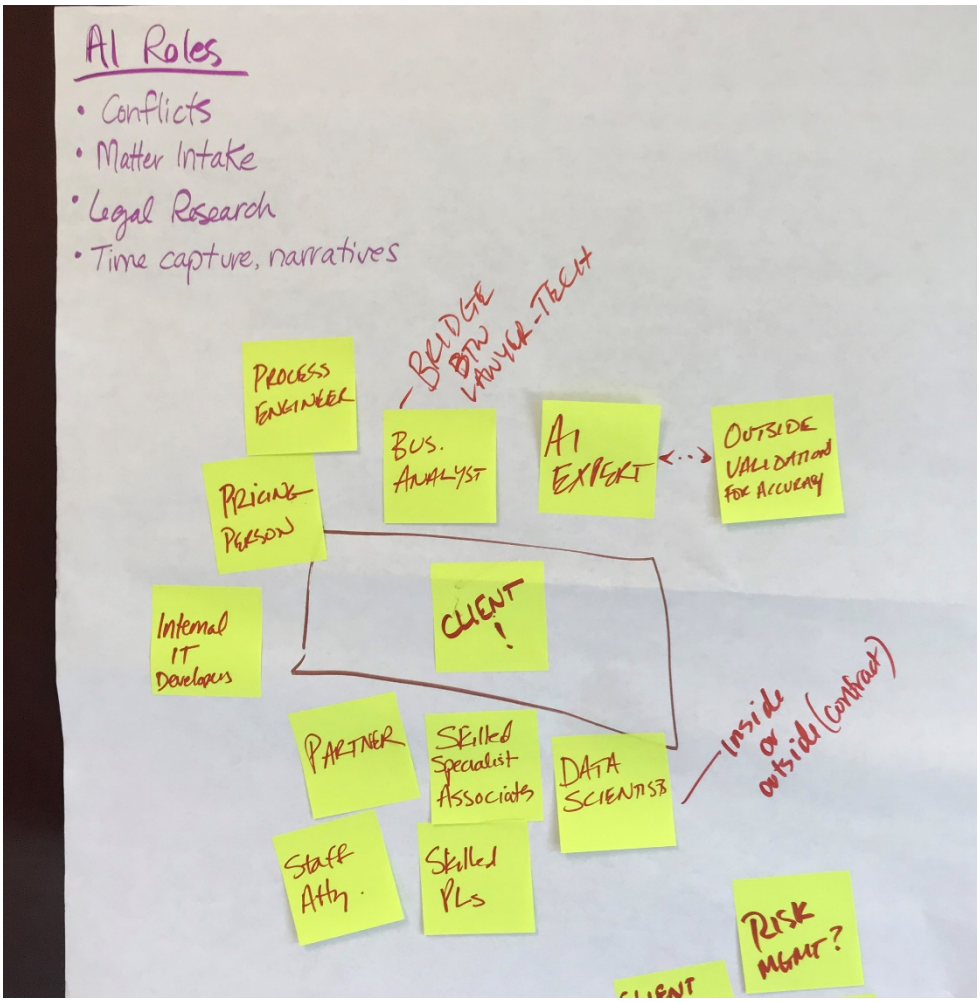

Figure 3. AI-augmented staffing.

Figure 3 captures an important part of the discussion about the practice team that can fully augment the work of lawyers through AI, machine learning and associated tools. The discussion employed the methods and style of legal design thinking. The group at the table shared and posted their thoughts and suggestions for the players in this mode.

The team illustrated is broader and flatter than traditional legal practice. The hierarchy of rainmaker partner, engagement partner, associates, paralegals and support staff gives way to a much more varied group.

Participants and the session leaders reported an aha moment when they placed the client at the center of the table. The idea that the client should be an early participant in the planning and execution of AI augmentation for the engagement struck the participants as a key insight. “Instead of having legal service done to them, it is done with them,” noted Sally Gonzalez.

Several people at the table have new roles and skills. The presence of an AI expert – whether internal to the practice or engaged as an outside resource – is obvious enough if successful inclusion of AI tools and methods is to be measured. The business analyst and data scientists may be less obvious. In contemporary business, the most precious component may be information, often more than raw materials, completed goods bought and sold or money itself. Representing a business, investor or institution in transactions or disputes requires factual knowledge and understanding for which the disciplines and facility lie in the skills of the business analysts and data scientists. Their power and work today must be augmented by tools within the umbrella of AI law practices that have the reach of skills and fluency to compete effectively. Those without, ultimately, will be no more fully competent and competitive in representing their clients than an automobile mechanic who

lacks the equipment to communicate with and control the sensors and automation required for the maintenance and repair of a contemporary motor vehicle.

At another discussion table, not illustrated, one of the lawyers participating recommended that the team include a psychologist. He said that he thought the disruption of lawyers' work caused by AI is sufficient that lawyers will require help adjusting. Lawyers' reactions to these changes can be considered in light of studies of personality traits for which lawyers have atypical measures. Dr. Larry Richard, in a post entitled "The Essence of Leadership for Lawyers" (https://www.lawyerbrainblog.com/2016/12/the-essence-of-leadership-for-lawyers/), points out that lawyers score atypically high on a personality trait called "skepticism." They also score low in "resilience" – corresponding with sensitivity to criticism or rejection. Combined, these make difficult the adoption of new tools and procedures, especially those with significant implications for the ways lawyers work.

AI goes hand in hand with big data. Data scientists at the table give the law practice the capability to work with very large data sets. AI, applied to the data sets, may reveal relationships that would or could not be perceived without it. Those serve as hypotheses – perhaps better worded as "guesses" or "suggestions" – that need to be confirmed, validated by the work of the data scientists.

The flat organization at the table is a necessary part of obtaining the value of the data scientists and analysts in an engagement. They need exposure to and connection with the legal analysis that comes from the lawyers at the table in order for their analysis and validation to be meaningful. Similarly, lawyers need an early perspective on what the data may reveal or demonstrate. A flat organization enables early and essential feedback between lawyers and the broader spectrum of support resources. Together they create an informed narrative for the engagement, rooted in its facts. The augmentation of the skills of lawyers by the machine-learning and natural language processing of the tools called "artificial intelligence" creates a strengthened human resource, not a replacement of lawyers by autonomous drones.

When the client is put at the center of the chart, there is an opportunity, even a demand, for empathy with the client's needs and constraints that should support more successful lawyer/client relationships.

How can law firm rainmakers be brought into these discussions? A law firm needs to understand how it can incorporate AI tools in its mix of resources for client engagements and how the firm's lawyer and staff skills can enable it to have the most effective combination of traditional and AI-augmented resources. AI does not operate in a vacuum, nor does it produce results "out of the box." Machine-learning tools and programs need to be trained – their algorithms adjusted and tuned by the participation and judgment of the lawyers who work with them. Law practices with greater use of these tools will develop more thorough and rigorous AI training procedures and methods.

"You can't just bolt AI onto existing firms, existing practice structures," explained interviewee Jeff Brandt. If AI reduces the need for young associates to perform some of the work that has become common – such as contract and document review and other aspects of due diligence – how will law firms train and mentor their associates, and how will they provide a path to advancement – ultimately to fill the ranks of future firm leaders? Will the leading partners of 10 to 15 years from now be the ones who were best at training AI or at least those who best understood how to work with those who perform those tasks?

E. Actions and Opportunities

To put these concepts to work, we need to bring more of the interested and responsive parties to the discussion from both the worlds of lawyers and clients. Legal technologists in many law practices often serve as the engine room manager. The Captain Kirks of law practice can't just command "Scotty" in the IT engine room to bring the firm to warp speed. The teamwork required is much closer to the real world of space flight, in which the commander of the International Space Station has available and relies upon a large team at Mission Control. Their command of the information available to them, as well as ingenuity to solve unexpected issues, is essential to the success of the mission.

Reflecting on the ALT program, Sally Gonzalez commented that it was very successful at part of what it was intended to achieve – to work together, to network and build relationships and to have open dialogue. The structure of the conference –

a day and a half of meeting together, dining together and exchanging views openly together – was its most important achievement. She encouraged the participants to seek to replicate that atmosphere in their own organization and with the clients and others with whom they work. "Break down the boundaries."

F. Additional Resources

Leadership: https://www.mckinsey.com/business-functions/organization/our-insights/leading-with-inner-agility

https://www.mckinsey.com/business-functions/organization/our-insights/will-artificial-intelligence-make-you-a-better-leader

Essays of Larry Richards at http://www.lawyerbrain.com/

Paul R. Daugherty and H. James Wilson, *Human + Machine, Reimagining Work in the Age of AI*, Harvard Business Review Press, 2018.

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February 2018