IRON MOUNTAIN®

AI EVOLUTION IN AN INFORMATION GOVERNANCE WORLD

2018 LAW FIRM INFORMATION GOVERNANCE SYMPOSIUM

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INTRODUCTION

Believe it or not, the term "Artificial Intelligence" has been around since the 1950s. At that time, John McCarthy invited a group of researchers from a variety of disciplines to a workshop called the Dartmouth Summer Research Project. During the workshop, artificial intelligence was born and coined as AI. Over the years, the concept of AI has matured and a number of definitions have been penned. For example, the Merriam-Webster dictionary defines AI "as the branch of computer science dealing with the simulation of intelligent behavior in computers," as well as "the capability of a machine to imitate intelligent human behavior". Since there are many terms used to define AI, it is important to understand the context in which any particular application is using the term.

Why use AI? The benefits of AI for law firms are endless, including better client service through document automation, prediction technology, legal research and analytics, intellectual property analysis, security risk mitigation and data visualization. The increasing competition in the legal market has prompted firms to explore and invest in innovation in order to differentiate and streamline their services. Yet, firms tend to take measured approaches to change. Adoption of AI will likely take place over time, rather than with rapid-pace Silicon Valley style disruption, as clients continue to ask for efficiencies and cost reductions in both substantive, advice-driven and administrative areas.

AI will eventually impact the practice of law for the everyday attorney. Will technology replace or enhance the services attorneys provide to clients? Is there an opportunity for attorneys to provide new and improved services to clients? Naturally, the answer is that "it depends." However, we do know that AI has begun to disrupt the legal community, with many firms already starting to take advantage of cutting edge technology, and this will continue well into the future. As firms embark on an AI adventure into unchartered waters, they should understand the Information Governance (IG) risks, benefits, and obligations that may follow. We begin that journey with our readers by exploring these issues and offering recommendations.

PREPARING TO USE AI TOOLS

PREPARING FOR AI – ASSESS RESOURCES, PROCESSES, AND TECHNOLOGY

Before using AI tools, internal stakeholders should collaborate to establish the business purpose and value added so that the time spent, financial commitment and resources dedicated are all worth the investment. More specifically, AI initiatives should facilitate faster delivery of legal services, enhance the quality of the firm's products or services, increase the firm's ability to deliver products or services efficiently (and thus at a lower price point) and enhance skills or knowledge. Kicking off an AI project mainly to tell clients that the firm is using AI technology is not sufficient or beneficial. Before an AI project begins firms need to: pick the correct people to lead initiatives (internal or external), who have the requisite technological prowess and expertise, ensure they have sufficient funds to contribute to AI endeavors, structure processes and workflows, and identify novel and appropriate solutions to truly leverage the power of AI tools.

RESOURCES - PEOPLE AND FUNDS

Many firms are starting to develop innovation teams, led by a Chief Innovation Officer. These individuals are tasked with the responsibility of driving automation and disruption within their firm. Many Chief Innovation Officers are hiring data scientists and lawyers with an aptitude for technology. Progressive law schools are revamping their programs to train and develop technologically savvy lawyers, who are filling roles commonly known as Practice Innovation Attorneys. These teams work alongside practicing attorneys to identify opportunities and use cases suitable for automation and technological advancements. Having a dedicated innovation team, familiar with AI tools, could also help firms leverage past experiences and lessons learned from previous projects.

Once you assemble a team, consider how to market your AI goals. Would your firm be responsive to initiatives couched as a research and development (R&D) effort? Has firm leadership set the tone at the top to embrace projects that require fine-tuning, but produce valuable and profitable results? Generally, firms are evolving to more closely resemble corporations that earmark money in their budgets to R&D. At some firms, this appears in the Information Technology (IT) budget and in others, it is seen as an investment in product development. Either way, having money earmarked in the budget allows firms to invest in resources.

PROCESSES

AI has the potential to improve the firm's current processes. Workflow tools and automation have been prevalent for many years. At a minimum, some firms use a workflow engine to manage the new business intake process, including clearing conflicts. What makes AI different from a traditional workflow system is the use of machine-learning and natural language processing abilities.

Firstly, machine learning technologies "read" the information contained in documents (or within a form or database) and make decisions about what to do next based on previously acquired knowledge. Machine learning could be used to improve an intake process by reading a recently filed complaint filed and then extracting the parties and other relevant information necessary to start the process.

Secondly, natural language processing comprehends sentiment and can decipher the tone and intent of communications, including email messages. Imagine using natural language processing to read through a collection of emails that were used to clear prior conflict hits. This could save significant amounts of time and produce more consistent standards for clearing future hits.

TECHNOLOGY

Among all the new AI technology offerings, determine which tool or tools your firm may wish to purchase depending on your goals (e.g., clause extraction, unsupervised learning, or data visualization).

Do some internal research. Make sure the firm understands how legal services are currently being performed within each unique practice group, then pinpoint opportunities for innovation and excellence. Be thoughtful when coming up with a creative solution that might distinguish the firm's delivery of legal services in comparison to peers, providing a competitive advantage.

WHAT RISKS SHOULD FIRMS FIRST ASSESS BEFORE USING AI TOOLS?

While AI seems to have nearly unlimited potential to benefit firms and Information Governance teams, firms should seek to understand any potential risks in order to make choices that best suit the firm and their clients. Information Governance professionals, who manage inter-disciplinary projects, are well suited to lead such endeavors and educate different populations from attorneys to technology and security staff.

INFORMATION MANAGEMENT BEFORE AI USE

The amount of data that firms store is growing exponentially, which could create an opportunity to draw valuable insights from data analytics. Though, not all data is suitable for analysis. Authentic, accurate, and quality data is essential and necessary to substantiate results. Because as AI systems "learn," their conclusions might not produce desired results otherwise. If an AI tool learns from a data set with poor hygiene, the end results will be poor. It's the common "garbage in, garbage out" scenario.

Many firms are deploying large-scale efforts (some going so far as to form a specialized team led by a Chief Data Officer) to clean up their data sets to obtain better results. This begs the question, can AI be utilized in the first instance to assist with the data clean-up effort? The answer is yes, along with enough manual intervention to properly build a clean data set that AI tools can train against and learn from. Once the investment in this effort is complete, the tools can apply the same logic to the remainder of the sample set.

In the past, some firms have tackled projects by performing large-scale, manual clean-up efforts, which infringed on billable attorney time. By utilizing AI, the same tasks can be performed quicker, easier and with more consistent and accurate results.

CLOUD VS. ON-PREMISE SOLUTIONS - WHERE TO STORE CLIENT INFORMATION

While most law firms have traditionally adopted client server applications and managed them behind their own firewall, we are seeing a strong trend toward using AI tools in cloud hosted environments. Some firms do not have IT resources with experience managing and maintaining these new technologies, making a hosted environment preferable. While many AI providers offer Software as a Service (SaaS) cloud-based services, law firm clients may request on-premises solutions as a condition for safeguarding and controlling their information. As appropriate, some items firms may want to consider are:

> outside counsel guidelines (OCGs) regarding cloud storage of client data

> limited ability to aggregate on-premises data into cloud AI applications

> ability to enforce ethical wall restrictions

Some clients prefer to provide informed consent before their information is stored in the cloud. Members of the innovation team should be aware of client preferences and requirements, using this to determine when to have conversations with the client. For additional information on Information Governance concerns with cloud solutions, including cybersecurity concerns, review the Law Firm Information Governance Symposium (LFIGS) white paper, Governance in the Cloud. For more information regarding managing client requirements, see the LFIGS Practical Solutions to Implementing Client Information Governance Requirements report.

MULTIPLE CLIENTS USING THE SAME AI TOOL

Most AI tools sift through or learn from significant amounts of data. Imagine, for example, a tool that provides best-in-class contractual provisions. A firm may pull samples from their document management system. In doing so, the firm should consider whether the information used in a tool is subject to any security requirements (such as ethical walls or privacy regulations), depending on the tool's functionality and the specific use of information. As discussed in the ethical rules section of this paper, some tools may examine a document, learn from it, and function without accessing it again, thus alleviating any concerns.

A more amorphous issue may involve restrictions on using information for purposes unrelated to the original engagement. Imagine an AI system that sifts through documents and suggests potential legal risks. This could be a relevant business development opportunity and a proactive service to clients, but each firm should first determine whether existing agreements or Client Information Governance Requirements (CIGRs) impact how they use certain tools.

RETENTION ISSUES

The firm needs to choose an AI tool that provides a feasible way to handle disposition. Considerations include, but are not limited to, privacy legislation (General Data Protection Regulation (GDPR), HIPAA, etc), OCGs, court ordered destruction, and internal retention policies. Generally, tools do not need to retain original documentation in order to provide results in the future. You should consider whether applying disposition to content aggregated in your AI system will affect the outcomes of your queries.

DATA SECURITY

Understand what ongoing information, if any, may be stored in an AI tool to assess what security parameters should be in place. Your firm most likely has security assessments, non-disclosure agreements, and various third-party agreements in place. Data security has been covered by numerous authoritative sources outside of LFIGS, and we would encourage the reader to examine those detailed treatments. For treatment of the standards, consider consulting the NIST SP 800 series of white papers, or the ISO-27000 series. For law firm specific information, check out the International Legal Technology Association's LegalSec Initiative.

DATA PRIVACY

In an ever-changing landscape of privacy regulation (consider GDPR, HIPAA, and others), clients are coordinating with law firms to ensure compliance, review firm policies and procedures, and adding contractual

obligations. Examine whether the tools you plan to use follow acceptable lawful reason and can tailor analysis to specific use cases while respecting privacy concerns. Determine whether information destruction, portability, resilience, and revision is easy to manage in the tools you seek to use.

SUPERVISION OR MANAGEMENT OF TOOLS GENERATING ALGORITHMS

AI models are based on theory, assumptions and choices of sample data to include – this may generate errors that could lead to inaccurate result sets when viewed against the design objective and intended business uses. Highly sophisticated AI algorithms could produce unexpected or unintended results, which is why attorney and technologist supervision remains essential. Users of an AI system need to understand the limitations of the system and how conclusions are made in order to explain results to firm leadership or regulators. As AI systems are continually learning, the algorithms become more complex and may or may not introduce unintentional bias.

Consider algorithms used to extract certain kinds of information from documents (e.g., perhaps the dates pulled for the lease initiation and termination dates are inaccurate). Depending on the application, unintended results could lead to missed due diligence documents, incorrect document sets, or the exclusion of documents from e-discovery production. From an IG perspective, a poor implementation or unintended results might lead to:

> classification errors due to bad algorithms built into data classifications systems/dark data solutions

> false positive or negative results (due to bad data inputs, unintentional bias, and/or incorrect algorithms)

> risk of incomplete results due to security restriction on input data

> risk of missing information in collections for litigation holds

> risk of missing information for lateral transfers because of documents not correctly identified

However, when results are tested and AI tools are supervised by the appropriate resource, this risk can be mitigated.

WILL TECHNOLOGY AND AI TOOLS REPLACE EMPLOYEES, SIMPLY ENHANCE THEIR PERFORMANCE, OR BOTH? WHAT ARE THE BENEFITS?

As AI expansion continues, and the adoption of AI tools proliferates at law firms (particularly to enhance the delivery of legal services directly to clients), the opportunity to deploy these technologies to internal operations increases. Mirroring their deployment in the client delivery space, AI tools can replace tedious and time-consuming tasks, perform acts that would have been difficult to conceive and execute, and supplement and turbo-charge existing programs in partnership with existing staff. Implicit in this scope is the opportunity to continue the "smart sizing" of law firm administrative staff, both to reduce headcount and to create employment opportunities (e.g. analysts). We now look at some key operational areas where AI tools can enhance service delivery.

FINANCE AND PRICING

Law firms have used business intelligence tools for years to report and predict financial trends related to billing realization, client and partner profitability, and annual revenue. In the past, reported data would be analyzed and then summarized (typically in Microsoft Excel spreadsheets) for further manual analysis by partners and senior management. Firms can now leverage stores of existing data with AI tools to aid in a range of billing and pricing functions such as:

> identifying discrepancies in e-billing narratives

> ability to find personal identify information or similar information that needs to be secured

> pricing alternative fee arrangements (AFAs) based on historical billing and receivables

> supporting legal matter management budgets and forecasting

> providing analytic breakdowns of time entries to prioritize or adjust fee earner work

> reviewing invoices against OCGs to reduce write downs and write offs[1]

Client demand for accurate billing forecasts and budgeting from their law firms will only continue. AI is critically important in managing AFAs to meet client requirements and strengthen and secure client relationships. Using AI is a positive way to foster relationships and potentially gain a competitive advantage over alternate professional service firms who have also started exploring AI to better serve clients.

1 Ironmountain.com, Practical Solutions To Implementing Client Information Governance Requirements, (2018).

DATA AND KNOWLEDGE MANAGEMENT

Data management is the first, critical step in leveraging valuable information using AI technology. Your organization's IG culture should include campaigns that educate all users about proper data classification and security to ensure information is accessible when needed, but also so it is defensibly disposed of, in accordance with the firm's records retention and disposition policies.[2]

This means that IG professionals should be part of the AI conversation to ensure that information is managed in a way that can be successfully leveraged for AI. When leveraging data across firm business units and jurisdictions, assess whether local data privacy and other requirements may apply.

With a smaller information footprint, it is easier to find the information needed, derive business value to achieve lower cost, and in turn reduce risk. There are a lot of AI tools on the market that can help to secure Personally Identifiable Information (PII)/personal data and firm data. The same tools can be used to identify dark data so data can be properly classified as either client or firm confidential, or information that can be shared across all of the firm's business units. [3]

While clients are asking for more specific data retention requirements, they also benefit from the availability and integrity of the firm's, other client's, and their own financial data. In the age of the Health Insurance Portability and Accountability Act (HIPAA) and GDPR, where there are stringent disposition requirements for PII/personal data or Protected Health Information (PHI), deploying sophisticated, innovative tools may no longer be an operational efficiency option, but more of a possible compliance necessity.

HUMAN RESOURCES AND HIRING

Large companies use AI to increase effectiveness throughout their hiring processes. Predictive analysis can screen, with a high level of accuracy, whether a prospective applicant can succeed at the company. Using AI, companies can employ multiple approaches to match candidate backgrounds against collected data to:

> Identify whether a prospective employee will remain with the company based on specific patterns in the resume.

> Suggest interview questions based on the candidate's background.

> Reduce turnover or ensure strong performance based on specific words used by the candidate during the application process.

> Provide insight on how a pool of candidates compare to each other.

> Reduce resume review and reference checking by 80%.

> Match candidate profiles to support diversity and inclusion requirements and eliminate implicit bias that can be introduced by human review.

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2 Ironmountain.com, Defensible Disposition Report, (last visited Feb 2018) http://www.ironmountain.com/resources/whitepapers/d/defensible-disposition-report.

3 Ironmountain.com, Dark Data Task Force Report, (last visited Feb 2018) http://www.ironmountain.com/resources/whitepapers/d/dark-data-task-force-report-identification-and-remediation-of-dark-data-in-law-firms

Most of the software available today requires Human Resources managers and data scientists to supervise, at least initially, algorithms designed to generate the required results, while managing potential issues around in the possible, unapproved use of PII/personal data. While law firms may not have the same volume of resumes as a large company, selecting high performers, and reducing turnover, are critical to any employer.

TECHNOLOGY OPERATIONS

	DOCUMENT ASSEMBLY	CONTRACT REVIEW/ DUE DILIGENCE	DATA EXTRACTION	LEGAL RESEARCH
DESCRIPTION	Computer-assisted drafting based on form/ template documents. Logic is written that instructs the program how to draft based on facts provided by the user (think TurboTax).	Tech supports a workflow that was previously manual: excerpting contract provisions in a report. Product is taught how to excerpt contract provisions.	Similar to contract review/due diligence products, but with the ability to structure the extracted data, not merely excerpt it.	Certain AI products have been trained to provide support for legal research.
BENEFITS	Reduces drafting time; reduces the labor cost associated with drafting; reduces the risk of human error/ inconsistency; results in better drafting.	Reduces contract review time; increases accuracy of due diligence reports.	Could be used to structure many kinds of information within a law firm (documents, matters, clients, etc.). Could reduce law firm overhead and provide otherwise unavailable data for the benefit of the firm and its clients.	Reduce the time spent on legal research.
CLIENT-FACING USE CASES	1. Client-facing interviews support internal/ external collaboration 2. Client-facing document drafting tools enable clients to draft without incurring attorney fees (or in custom-built solution for the client)	Not applicable.	Deal databases and market terms surveys.	Not applicable.

	DOCUMENT ASSEMBLY	CONTRACT REVIEW/ DUE DILIGENCE	DATA EXTRACTION	LEGAL RESEARCH
FRAMEWORK FOR ANALYSIS	1. Internal implementation should be considered if humans regularly make mechanical edits to form documents. The higher the volume of edits, the greater the ROI. 2. External implementation should be considered if there are documents that clients are not willing to pay for. The drafting revenue is already lost; external implementations are marketing platforms.	If there is price pressure on due diligence work, these tools should be considered.	If the firm has an interest in understanding its business and its clients based on structured data, these tools should be considered.	Law Firm SRZ reviewed Ross and found it would not add value at this time. CARA should be considered by any firm that has a litigation practice.
MARKET LEADERS/ PARTICIPANTS	For a comprehensive list of sources relevant to the industry, please consult the International Legal Technology Association (ILTA) website.			
IMPLEMENTATION DIFFICULTY	High	Depends on product and scope of implementation.	Depends on product and scope of implementation.	Low
MARKET PENETRATION	Document assembly is a well-established technology. 1. Wilson Sonsini – Term Sheet Generator 2. Goodwin Procter LLP – Founder's Workbench 3. Simmons & Simmons – Auto Draft (custom) 4. Allen & Overy – MarginMatrix™ (codifies the laws in various jurisdictions and automates the drafting of tailored documents based on an automated legal analysis.)	Growing (1) DLA Piper (2) Freshfields Bruckus Deringer	Limited	Limited (1) Ross: Baker Hostetler; Dentons; Latham & Watkins; Von Briesen & Roper; Womble Carlyle Sandridge & Rice (2) CARA: Limited

IMPACT ON REVENUE OF THE FIRM

ENHANCING BUSINESS DEVELOPMENT AND MARKETING

There is a large quantity of internal and external information that business development (BD) and marketing teams can leverage with AI to find prospective clients, better understand industry needs and behaviors, and have meaningful exchanges with clients. Using social semantics and available data, AI can replace tasks manually done by staff, including:

> Collecting data to respond to requests for proposals.

> Generating email communications based on real-time, intelligent data.

> Using existing data to mine firm expertise based on individual lawyer and practice experience, and current and past client results.

> Identifying strong client prospects using social media, media reports as well as court and government filings.

Law firms looking to use AI may focus on driving client acquisition more than increasing efficiencies, although both goals provide measurable benefits. This is evident from recent Request for Proposals (RFPs), Outside Counsel Guidelines and client pitches where AI tools in general are mentioned either by clients or firms. Generally, corporate legal departments (aka Directors of Legal Operations) might have to manage hundreds of outside counsel law firms, and hoping to simplify and streamline these engagements, have started to establish key relationships with only a few panel firms. The RFP process to determine the best fit has gotten very robust, with tight deadlines and key questions, focusing on legal expertise, pricing, innovation, and operations.

For example, a client was able to narrow their outside counsel firms from 700 to 7 by going through this process and eventually assigning each firm a different geographic and business segment. One of the key points in determining these seven firms was the use of technology. The client expects the selected law firms to use technology in a particular way, and to collaborate and share technology with each other.

With respect to innovation or AI, these inquiries are general and it is not clear whether the client is looking for something specific. It is clear, however, that clients are looking for forward-thinking firms and well-reasoned answers to these inquiries.

AI tools might drive client acquisition, as an indicator of the firm's work and its capabilities in innovation, saving the client money, and the impact on the representation. Some clients might already have their own projects that resemble AI applications and seek firms engaged in similar thinking as well. Similarly, when firms started to implement Lean Six Sigma and other project management approaches to legal work, clients already familiar with these approaches ask for it from their outside counsel. Some clients are asking their outside counsel to assign a certified Project Management Professional (PMP) to their engagement. As a result, firms are starting to bring these PMPs and other IT personnel to pitches to validate this resource and win business.

Without a doubt, corporate legal departments have continued to focus on client value and keeping legal spend down, but are exploring to see how innovative technological solutions can help achieve that goal. For example, an RFP might have an inquiry stating:

"Client X's legal group is very focused on how new processes and technologies might be used to provide efficiencies in the way legal services are provided. Various internal projects are currently underway that use predictive analytics, algorithms and machine learning. Outside Counsel will be expected to explain what technologies they will use, or plan to use, and how this positively impacts on the delivery of service for Client X."

At the very least, firms that have a plan to pilot and implement AI tools will have an advantage over competitors and increase their chances of acquiring work.

INCREASING PROFITABILITY BY INCREASING EFFICIENCIES, AND UNDERSTANDING EACH TOOL'S TRUE FUNCTIONALITY AND VALUE ADD

To successfully obtain new client work, it is imperative that firms have plans and have tried AI applications to lower clients' legal spend. Within the practice of law, applications seem to have targeted e-discovery review and contract provision analysis by making repetitive processes more efficient. The type of work that machines might replace or enhance are typically junior-level analysis of documents. The current state of applications might not be able to accurately perform bespoke legal work. Firms, however, have been successful in using AI tools to make the review and analysis of the junior level work more efficient. This type of work is typically where attorneys are most comfortable conceding the work, and clients are most comfortable from a conceptual basis. While clients and practitioners still might be uncomfortable with the idea of machines taking over some work, it seems that both sides are in agreement that it is a bottom-up approach to identify appropriate use cases.

Overall, clients are interested in driving the legal market to explore AI options, intrigued by the benefits that technology can provide in order to reinforce and cross-check legal advice, and create many different types of substantive and administrative efficiencies. The 2017 Altman Weil Survey, "Law Firms in Transition," offers a window into this new and evolving landscape, finding that approximately 95% of firms believe efficiency and competitive pricing trends will continue indefinitely, and nearly 85% of firms believe that the need for support staff will trend downward, and technology will replace employees.

Evaluating and categorizing the value that various AI options offer, practitioners should take themselves back to the first year of law school and think about the IRAC methodology. First-year law students are taught to (1) Issue spot, (2) apply the Rule of law,

(3) Analyze the relevant facts, and 4) Conclude based on the facts and the rule. In concept, there is no fundamentally large difference between that and what we are asking AI to do. We are asking algorithms to chunk out natural language based on facts. We are asking analytical software to float to the top relevant points based on directive learning or iteration.

In the e-discovery space, practitioners have long used machine learning capabilities with technology assisted review (TAR). An early pioneer making this technology practical was Recommind and its Axcellrate platform, but virtually all e-discovery platforms can have an element of TAR included. The true capability of this application is simply pushing relevant documents up to the top of the review pile based on a set of identified documents. In our IRAC framework, this technology gets us only to the I – issue spotting, and only with regard to documents. Although this seems like a very narrow use case, it is very helpful in light of the vast amounts of documents in an e-discovery review project.

And, as the amount of data requiring analysis has skyrocketed, the legal world must find alternative solutions for ease of use. Leveraging TAR, expert lawyers now train or utilize

e-discovery software, after entering certain parameters to determine if a document is responsive to a discovery request. Over time, software can learn what to do based on prior training, apply that knowledge to many different, large data sets, and produce results in a fraction of the time. The software also accomplishes this with better accuracy than most human reviewers.

Decreasing attorney frustration and increasing attorney time for other work are among the additional advantages of using these sorts

of technological advancements. Litigation attorneys report that document review is among the most frustrating part of their job; innovative tools may be key to retaining talent who might otherwise become disillusioned with monotonous, but necessary reviews. Document review solutions for corporate due diligence work are also gaining traction for corporate attorneys. AI software such as Kira, NeoLogic and others can be used to find and propose revisions to relevant clauses across many documents, such as all the termination clauses in leases. In the end, these solutions are attractive because they perform the work more quickly, less expensively, and often more accurately than a traditional team of attorneys.

A platform such as Kira or Contrax Suite can look for certain provisions right out of the box and can also be customized to look for less common provisions. Although such platforms are essentially also simplifying document review, the focus is much more on built-in machine learning capabilities. The interface of these types of platforms are driven by the provisions learned and applying algorithms to new documents. In our IRAC framework, this still only gets us to I – issue spotting, but the issue is more focused in the context of a certain provision.

Ross is an example that might help with the R and A in IRAC, rule and analysis. With Ross a user can ask the platform an intuitive question and the machine will produce answers from published and unpublished case law. This will make it easier to apply the correct rule and might make analysis more efficient. Ross also offers a service to create a legal memorandum based on the query, but this last step is offered as a professional service and a human creates the memo.

In addition, some firms have begun using the RAVN platform to highlight legislative and rule changes and notify attorneys when these occur. The tool can be trained to identify documents in its repository

that need to be updated to reflect the change in the law. Last year, when iManage announced its acquisition of RAVN, there was a lot of excitement within the legal community. RAVN is renowned for being able to classify unstructured data. Leveraging this tool against the massive collection of unstructured data contained in the document management system will afford firms the opportunity to automate data classification tasks and find golden nuggets of information that were previously buried in literally millions of documents.

RAVN can be useful in two additional ways: (1) driving information governance efforts by looking for metadata to ensure that retention periods are applied, and (2) auto-classifying email messages and tagging them with client matter numbers, after recognizing that the message has been read.

With all of these examples, it is clear that none of them provide an all-around solution throughout the legal analysis framework. However, each of them can offer value by making a specific step more efficient, particularly if the work is repetitious.

With any AI tool, a lot of the success hinges on initial work done to teach the machine and to promote its uses and benefits to practitioners. There can be a significant time and effort requirement from subject matter experts to train the machine and to provide ongoing feedback. This time requirement needs to be clearly communicated to the stakeholders and offset by the potential benefits and time savings the tool can offer. The firm as a whole needs to take a stance on how to implement AI and other technological tools and to what extent it is willing to change its culture.

As discussed above, this change can be client-driven, but it can also come from the lawyers and staff themselves. Young attorneys might even already be exposed to AI tools in law school. There are many

programs that have a technology-focused track or courses where law students get to experiment with technology, applied to the practice of law.

ENHANCING INFORMATION GOVERNANCE GOALS USING CHATBOTS: A QUICK STUDY IN INCREASING PROFITABILITY AND EFFICIENCY

At the most basic level, chatbots are robots that have conversations with humans to collect data and perform simple tasks. More advanced chatbots take advantage of natural language processing and AI to understand conversational phrasing and intent. Each time a chatbot has a conversation with humans, the chatbot learns and improves its responses to similar conversations in the future.

Forbes recently published "How Chatbots are Going to Change Communications." In the July 24, 2017 article, Forbes interviewed Hristo Borisov, the Director of Product Management at Progress. He explained the differences between functional programming, which follows a traditional decision-tree paradigm, and declarative programming, which is used by chatbots:

> *"In declarative programming, you describe what information you want to be extracted from a conversation instead of describing how by creating complex decision trees. This way, a developer relies on cognitive flow algorithms that feel natural to the user and can handle scenarios that occur in natural conversation such as changing your intent at any point of the conversation. We have discovered that it's 16 times faster and twice as cheap to follow this approach."*

Firms are able to interact with their clients using chatbots, and administrative professionals are likely to deploy chatbots to support attorneys. Imagine a bot that can interview all custodians of records when a legal hold needs to be put in place. Not only could the bot conduct the interview, but it also has potential to crawl the data repository, locate and secure records at rest or move records to another designated, preferred repository. The possibilities are endless and the benefits abound. The vision is that chatbots will provide a vehicle to demonstrate objective and measurable compliance to the client, the court and others.

ALTERNATIVE REVENUE STREAMS

AI tools can create entirely new revenue streams for firms that are willing to expand into new areas of business. There is legal work that is currently assigned to in-house corporate legal departments. It might not be sophisticated work for outside counsel to handle, but AI and machine learning would offer an opportunity to tap into this revenue stream where traditional legal work and billing would otherwise be too expensive. If the firm can resell, design and implement an AI tool specific to the client, it essentially productizes the legal work to assist the corporate legal department's attorneys with what they might classify as their easier work, and save them time and money (assuming firms can do this better, faster, and cheaper than in-house teams using similar technology).

Firms are starting to team up with AI providers to pivot their competencies to implement useful tools that can make an immediate impact on the efficiencies of corporate legal operations. If a client hires a firm to consult and implement legal-specific AI tools, many of the pain points regarding time, effort, and expertise will be resolved. For the firm, it provides another revenue stream to pivot its competency more toward data science and selling that as a service and product.

Analogous efforts to productize legal work include legal reasoning systems. Firms have used software, such as Neota Logic to create TurboTax like systems to address common issues, such as FMLA determinations and data breach notifications. These systems are not exactly considered AI under our definition, nonetheless, they give the user some guidance or a document based on the criteria that are entered. Typically, these systems are offered to the client per subscription or completely free as a value add. Another example of alternative revenue streams, are data analytics groups that crunch numbers for labor and employment cases to analyze payroll data for gender-based pay discrimination suits.

To develop the AI tools expertise, firms need to start building those applications and workflows internally first. Thereafter, the firm can package a use case that is scalable and sell it to clients. Alternatively, the client might have some specific use case already in mind. In that situation, the team would need to purposefully design a solution for a specific client, which will likely require business process analysis of the processes in the legal department. While the reselling of the tool generates one revenue stream, consultancy services and ongoing maintenance provide an equal opportunity to expand the business. If there is enough of a demand for AI tools, it would behoove the firm to create a group that becomes experts on practical applications. Often, we see these groups borne out of the Knowledge Management or Practice Innovation teams. For smaller firms, we might see the library taking this responsibility.

Currently, much of the process is unchartered territory and the job descriptions that are being created span a great deal of responsibilities. Until the process has matured a bit, we will likely see broader generalist roles first and more specialized roles develop as firms work through the issues. We have seen similar groups form and mature, such as e-discovery specialty practice groups.

HOW CLOSE ARE FIRMS TO TAKING THE LEAP?

There is an uptick in interest in AI applications and how they might impact firms' revenue streams. However, it seems that while that might be the case, many firms' position maintains that they want to be cutting edge, but not an industry leader. They do not want to take big risks but appreciate that the firm needs to have a reputation that it is competent in AI software solutions.

LEGAL AND ETHICAL RULES IMPACTING THE USE OF AI AND MACHINE LEARNING AT LAW FIRMS

Technology and innovation are disrupting the way in which law firms and attorneys practice law and provide advice. In response, the legal community is figuring out how to navigate uncharted technological and ethical territory, similar to every other industry embracing advancements in and the application of AI tools. Reflecting upon the zeitgeist around AI use, The Berkman Klein Center for Internet and Society at Harvard University recently declared that "[t]he development, application, and capabilities of AI-based systems are evolving rapidly, leaving largely unanswered a broad range of important short- and long-term questions related to the social impact, governance, and ethical implementations of these technologies and practices."[4]

Until guidance around AI use is established, U.S. attorneys may wish to start the discussion by exploring and refining some potentially applicable American Bar Association (ABA) Model Rules of Professional Conduct (the Model Rule(s) or Rule(s)), adopted in each state's discretion. The Rules may be a good starting point to assess professional conduct when law firms use AI tools because the technology is so new, there are no concrete steps outlining possible considerations.

IG leaders should familiarize themselves with guidance as it becomes available to educate their colleagues about any possible appropriate measures surrounding the use of AI tools. The discussion in this section provides a foundation for topics that may be helpful to address. IG teams are best positioned to raise awareness because of their cross-departmental roles and initiatives, focusing on ethics, legal obligations, technology, risk mitigation and compliance and training.

DUTY OF TECHNOLOGY COMPETENCE – ATTORNEYS UNDERSTANDING TECHNOLOGY

The Duty of Competence, Model Rule 1.1, might provide guidance around AI use, and has been adopted in around half the states in the United States. Interestingly, Comment 8 to Rule 1.1 was amended in 2012 to add an ethical duty of technology competence when representing clients. Accordingly, "[t]o maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject."[5]

In the past, technological competence has generally been associated with understanding the use of keyword searches; metadata preservation; predictive coding; mobile, tablet, and other devices; document storage and security, including encryption and cloud services; email; billing software; and technological advances required for zealous advocacy.[6] Similarly, Steven M. Puiszis, a partner at Hinshaw & Culbertson LLP, broadly looks to "five realms of technological competence reasonably necessary for most engagements," which are data security, e-discovery, technology attorneys use to practice law (including email), technology clients use, and technology used to present information in the courtroom.[7] Based on these examples, attorneys could infer that the use of AI tools might fall under the rules around basic technological competence.

However, guidance lags behind the race to develop AI tools for attorneys and their clients. Hedda Litwin, the Cyberspace Law Chief Counsel for the National Association of Attorneys General, makes two important points around Comment 8: (1) "[n]o state has published a list of technologies that lawyers must master," and (2) attorneys do not need "to be tech experts," but should "make efforts to keep abreast of changing technologies and to obtain and use technology in an appropriate way." [8] Likewise, Ivy Grey, a Senior Attorney at Griffin Hamersky LLP, reiterates that even though Florida attorneys are the first to practice in a state requiring three hours of technology continuing legal education (CLE) as of January 2017, "[n]o state has published a list of technology programs that lawyers must learn or skills that lawyers must possess." [9] Florida attorneys will likely discover what kind of technology training satisfies technology CLE requirements, and pave the way for attorneys in other states, as similar requirements are adopted.

5 American Bar Association (ABA), Model Rule of Professional Conduct, Rule 1.1, Comment 8, (2016.

6 Georgetown.edu, Ethics, Technology, and Attorney Competence, (Last visited February 2, 2018) http://www.law.georgetown.edu/cle/materials/ediscovery/2014/frimorndocs/ethicsinediscoverybakerhostetler.pdf; Lawtechnologytoday.org, Exploring the Ethical Duty of Technology Competence, (Last visited February 2, 2018), http://www.lawtechnologytoday.org/2017/03/technology-competence-part-i/

7 Americanbar.org, A Lawyer's Duty of Technological Competence, (Last visited February 2, 2018), https://www.americanbar.org/content/dam/aba/events/professional_responsibility/2017%20Meetings/Conference/conference_materials/session4_information_governance/puiszis_lawyers_duty_technological_competence.authcheckdam.pdf

8 Hedda Litwin, The Ethical Duty of Technology Competence: What Does it Mean for You?, NAGTRI Journal, Volume 2, Number 4, November 2017, (Last visited February 2, 2018) http://www.naag.org/publications/nagtri-journal/volume-2-issue-4/the-ethical-duty-of-technology-competence-what-does-it-mean-for-you.php

9 Lawtechnologytoday.org, Exploring the Ethical Duty of Technology Competence, (Last visited February 2, 2018), http://www.lawtechnologytoday.org/2017/03/technology-competence-part-i/

Notably though, Ms. Grey recommends that attorneys have reasonable technology proficiency, "[s]ufficiently learn the necessary information," or "[a]ssociate or consult with technical consultants and competent counsel" before undertaking representation.[10] This advice is helpful in considering options. Without a doubt, many attorneys will still raise three questions: what constitutes reasonable technology proficiency, how can I learn the necessary information since I am not sure who to consult or where to start and what are the costs associated with consulting a technical resource. As to the third question, big firm attorneys may be able to employ this advice and consult internal, or hire external, resources, as appropriate, but solo practitioners and small firms may be hard pressed to add to the budget. Regardless of law firm size, more and more rules and costs have been passed on to attorneys, making the practice of law increasingly expensive and complex.

Further guidance is available through technology competence or cloud computing ethics opinions, many of which were developed in response to the use of SaaS, where attorneys utilize software via the internet, rather than an on-premise solution – behind a law firm's own firewall and on a law firm's servers. Those advisory opinions advocate for a reasonable care standard in addition to specific requirements.

For example, in California, attorneys should consider employing reasonable security precautions, developing or consulting someone with computer security competence, and reviewing security measures from time to time, mainly to avoid unauthorized disclosure or loss, and maintain confidentiality. [11] In New York, attorneys should review the cloud service's security from time to time, review any new rules on privilege and technological advancements, ensure technology protects against unauthorized disclosure, and check whether the vendor has had a breach in the past. [12]

In addition, in Massachusetts, attorneys should periodically review the vendor's terms of service and restrictions on data access and portability, client's instructions, and client's consent prior to storing or transferring data using the internet. [13] Lastly, states like Arizona and Wisconsin recommend that attorneys understand technological security measures, such as password protection, encryption, multi-factor authentication, firewalls, threat detection software and virtual private network (VPN) options. [14]

DUTY OF COMPETENCE AND DILIGENCE – ATTORNEYS USING TECHNOLOGY IN PRACTICE

In the digital age, an attorney's use of technology, in some situations, may help ensure that clients receive competent and diligent representation, and ultimately reduce both billable costs and human error. [15] For example, competently and diligently using databases to run search terms during client representation has become the norm, instead of having hundreds of employees read thousands of pages to locate key words, phrases, or custodians, or having employees use databases without sufficient skill or knowledge. [16] The ABA Commission on Ethics 20/20 lends credence to this position, even affirming in 2012 that "[l]awyers must understand technology in order to provide clients with the competent and cost-effective services that they expect and deserve." [17]

10 Lawtechnologytoday.org, Exploring the Ethical Duty of Technology Competence, (Last visited February 2, 2018), http://www.lawtechnologytoday.org/2017/03/technology-competence-part-i/

11 Americanbar.org, Cloud Ethics Opinions Around the U.S., (Last visited February 2, 2018), https://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html

12 Americanbar.org, Cloud Ethics Opinions Around the U.S., (Last visited February 2, 2018), https://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html

13 Americanbar.org, Cloud Ethics Opinions Around the U.S., (Last visited February 2, 2018), https://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.html

14 Americanbar.org, Cloud Ethics Opinions Around the U.S., (Last visited February 2, 2018), https://www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/charts_fyis/cloud-ethics-chart.htmll

15 American Bar Association (ABA), Model Rule of Professional Conduct, Rule 1.3, (2016).

16 ABAjournal.com, Not competent in basic tech? You could be overbilling your clients—and be on shaky ethical ground, (Last visited February 2, 2018), http://www.abajournal.com/legalrebels/article/tech_competence_and_ethical_billing

17 Americanbar.org, ABA Commission on Ethics 20/20, (Last visited February 2, 2018), https://www.americanbar.org/content/dam/aba/administrative/ethics_2020/20120508_ethics_20_20_final_hod_introdution_and_overview_report.authcheckdam.pdf

Further recognizing that "[t]echnology is becoming fully integrated in the practice of law," the ABA hosts a TECHSHOW and started doing so as far back as 1986, "where lawyers, legal professionals, and technology all come together."[18] A handful of sessions at the TECHSHOW offer CLE credit regarding e-discovery, cyber-insurance, cloud computing, social media, web apps, managing email and more.[19] Other conferences, discussing how law and technology intersect, are sponsored by the International Legal Technology Association, World Technology Law Conference, and International Association of Privacy Professionals (e.g., addressing how GDPR relates to AI, and the nature of informed consent when using new tools).

Looking to the future and based on existing best practices, AI tools will likely become a fixture of competent and diligent representation as well. More specifically, due diligence and contract review tools such as Kira can reduce the amount of time spent reviewing contracts, ensure consistency during reviews and recommend changes that attorneys made to similar clauses in the past. Likewise, machine learning tools such as Ross help attorneys identify relevant case law quicker and easier. [20] In one case study, where attorneys were matched against an AI tool, attorneys achieved 66.3% accuracy while the tool had 86.6% accuracy in predicting whether a Financial Ombudsman would allow a payment protection insurance claim (although the parameters of the test likely impacted the results to some degree).[21] In another case study sponsored by the winner, LawGeex's AI competed against 20 U.S. attorneys with decades of experience to identify issues in five non-disclosure agreements (NDAs).[22] To complete their review, attorneys averaged 92 minutes with an 85% accuracy rating, while LawGeex's AI took 26 seconds with an average accuracy rating of 94%. [23]

As an aside, while tools may offer efficiencies for clients, law firms may need to make staffing and training adjustments, especially for junior attorneys, who may end up supervising the use of tools doing work they might have performed in years past.

AI tools can be used for law firm administration too, better managing (1) requirements in OCGs and standardizing law firm comments and responses, (2) pricing models for client work, (3) email filing and management, (4) onboarding processes and workflows, and (5) threat detection and management.[24] In particular, AI cybersecurity protection tools can assist with Rule 1.6, Confidentiality of Information, making reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, client information.[25]

As an example, iManage Threat Manager identifies anomalous usage based on an employee's typical profile; Splunk uses

18 Techshow.com, American Bar Association (ABA) TECHSHOW2018, General Information, (Last visited February 12, 2018), http://www.techshow.com/conference/

19 Techshow.com, American Bar Association (ABA) TECHSHOW2018, General Information, (Last visited February 12, 2018), http://www.techshow.com/conference/

20 Law.com, Q&A: Legal AI Pioneer ROSS Takes Stock After First Year, (Last visited February 2, 2018), https://www.law.com/americanlawyer/almID/1202761094358/

21 BBC.com, The Robot Lawyers Are Here – And They're Winning, (Last visited February 2, 2018), ttp://www.bbc.com/news/technology-41829534; and Law.com, Artificial Intelligence Beats Big Law Partners in Legal Matchup, (Last visited February 2, 2018), https://www.law.com/americanlawyer/sites/americanlawyer/2017/10/31/artificial-intelligence-beats-big-law-partners-in-legal-matchup/

22 Lawgeex.com, Comparing the Performance of Artificial Intelligence to Human Lawyers in the Review of Standard Business Contracts, (Last visited February 2018), https://www.lawgeex.com/AIvsLawyer.html

23 Lawgeex.com, Comparing the Performance of Artificial Intelligence to Human Lawyers in the Review of Standard Business Contracts, (Last visited February 2018), https://www.lawgeex.com/AIvsLawyer.html

24 Aboveandbeyondkm.com, Artificial Intelligence Use Cases for Law Firms, (Last visited 2018), http://aboveandbeyondkm.com/2016/10/artificial-intelligence-use-cases-law-firms-arkkm.html; and Neotalogic.com, AI & The Business of Law III: The Rise of Administrative Automation, (Last visited February 2018), https://www.neotalogic.com/2016/10/24/ai-business-law-iii-rise-administrative-automation/

25 American Bar Association (ABA), Model Rule of Professional Conduct, Rule 1.6, (2016).

predictive analytics to anticipate incidents, including insider threats; CyberArk uses algorithms and self-learning analytics engines to recognize unauthorized behavior; and MobileIron applies potential machine learning algorithms to protect enterprise mobility. Additionally, products such as Cognito by Vectra can sort through immense amounts of information, make decisions to prioritize the most likely threats, and alert the appropriate employee who can take further action. While firms may hire security analysts to comb through data and systems to prevent an incident and remediate or patch issues, these analysts can be expensive and cannot scan all systems at one time, making the proper tools extremely useful.

While these sorts of tools could potentially help firms with their Rule 1.6 confidentiality obligations, consider whether there are any privacy implications, since a baseline for user activity is necessary to monitor and detect unusual activity. One option is to review and revise your firm's Acceptable Use of Systems Policy to fully disclose how an employee's activity may be monitored to protect client and employee information. In today's society though, we balance the benefits of technological tools with privacy concerns in a myriad of ways, at law firms and everywhere else. In fact, monitoring activity could now be relevant even when going to the grocery store - mobile purchase applications like Amazon Go are used in conjunction with computer vision, machine learning algorithms and sensors to identify what items are selected and charges an individual's Amazon account.[26]

WHEN CONFLICTS OF INTEREST AND CONFIDENTIALITY MEET AI – COMMINGLING DATA TO BENEFIT CLIENTS

Clients regularly encourage and sometimes contractually obligate attorneys to use knowledge management databases, samples and precedent to reduce costs and increase efficiency, as a long-established good practice. As a result, referring to past work for multiple clients has also been long accepted and requested. In doing so, however, precedent files may contain confidential client information, and that information may not be scrubbed or subject to standard retention schedules, with the understanding that law firm employees sign confidentiality agreements, undergo background checks and endeavor to comply with ethical walls. Precedent files may also be held by individual attorneys in their own unofficial knowledge library. The question remains: how will the same facts be received when attorneys and law firms use AI tools containing client information to reduce costs and increase accuracy and efficiency (where the tools have been trained based on other clients' information)? Is this simply a new take on the same old issues?

Machine learning tools may pose much less of a concern than unredacted precedent files. In some instances, client information is added to the back-end knowledge library so that a machine learning tool can acquire knowledge, then the tool recommends additions or edits to future documents, and typically, client information is not visible to the attorney users, nor is the information stored in the tool thereafter. Instead, the tool uses an algorithm, recognizing the original provisions and other, similar provisions. Thus, this approach eliminates concerns about an attorney for Client A seeing the confidential information for Client B. Indeed, this would be more restrictive than some practices, where attorneys use other attorney's unredacted precedent files for one client to service other clients; one remaining question could be who owns the algorithm. Law firms who invest time, resources and information training AI tools should look into owning the algorithm as opposed to a vendor, even with a SaaS model.

Where AI tools do contain client information, be prepared to handle various issues. For retention purposes, consider exploring options where older documents drop off or out of machine learning and other tools as new documents are entered, creating a rolling basis of resources in the knowledge library and avoiding running afoul of retention periods. For deletion purposes, also explore options where knowledge library documents are linked to client-matter numbers and can be purged from

26 Telegraph.co.uk, Inside Amazon's First Cashierless Supermarket - Which Uses Shelf Sensors to Tell What You've Bought, (Last visited January 22, 2018), http://www.telegraph.co.uk/news/2018/01/22/amazon-open-first-cashier-less-store-downtown-seattle/

the tool. For file release, return and preservation obligations, consider a policy where drafts and final documents in the tool are always kept in the document management system or network drive. For conflicts purposes, consider ways to filter client confidential information in a pseudo, inclusionary ethical wall fashion.

Clients and firms should also consider how to handle machine learning tools where the vendor retains ownership of the tool's acquired knowledge. In such cases, identify whether the vendor has one-time or continued access to client information. Retention and disposition parameters could be important with this scenario.

Moreover, it may be appropriate based on the circumstances to consider some or all of the possible questions raised below as a firm reviews the use of AI tools for their purposes:

> It is permissible to use an AI tool for client work, in general.

> It is possible to use AI tools for clients who want their information entirely segregated from other clients' information and the attorneys for those clients.

> It is possible to provide efficiencies and levels of accuracy to a client opting out of AI use.

> Client information may be used to test tools during upgrades, change management, etc.

> Different firms can share AI tools to serve clients, as discussed earlier.

> Each attorney should be aware of and trained to use AI tools to best serve the client's interests.

These proposed recommendations have been suggested with an eye toward the rules around conflicts of interest and confidentiality, as applicable. According to Rule 1.7(a) and 1.7(b)(4), an attorney cannot represent a client if that representation is directly adverse to another client, absent written, informed consent from both clients, which is why ethical walls and agreements with clients about the use of their information are both relevant. And pursuant to Rule 1.6(a), an attorney cannot reveal information relating to a client representation without informed consent or other permissible exceptions, which pertains to information sharing within and outside of a firm. Overall, these

issues could be properly sorted in a standard engagement letter, outside counsel guidelines, or waivers, upon the beginning or renewal of services, as applicable and appropriate.

DUTY TO AVOID CONFLICTS OF INTEREST – SELLING OR BILLING FOR AI TOOLS

AI tools are being used internally to service law firm clients, and AI tools have been making waves across the for-profit and pro bono sectors. Many large and small firms alike have started exploring the use of AI tools for client work, including DLA Piper, Linklaters, and Orrick. [27] Likewise, the big four accounting firms, who compete with law firms to provide legal services, have also started exploring AI tools; thus, their firm and its attorneys are also subject to the applicable rules of professional conduct adopted in their jurisdiction.[28] Going a step further, the law firm Horty Springer is selling an AI tool to clients and customers, using LegalSifter's AI software to review and analyze business associates agreements based on privacy rules.[29]

Not to be outmatched on the pro bono side of the house, Paladin uses AI to match clients with attorneys focused on

27 Thelawyer.com, Linklaters to deploy Nakhoda firmwide in innovation push, (Last visited February 2018), https://www.thelawyer.com/linklaters-deploy-nakhoda-firmwide-innovation-push/; Law.com, Artificial Intelligence Beats Big Law Partners in Legal Matchup, (Last visited February 2018), https://www.law.com/americanlawyer/sites/americanlawyer/2017/10/31/artificial-intelligence-beats-big-law-partners-in-legal-matchup/; and Law.com, Orrick Labs to Build Law Firm Technology In-House, (Last visited February 2018), https://www.law.com/legaltechnews/sites/legaltechnews/2017/11/20/orrick-labs-to-build-law-firm-technology-in-house/

28 Artificiallawyer.com, EY's AI Strategy And What It Means For Professional Services Firms, (Last visited February 2018), https://www.artificiallawyer.com/2017/11/15/eys-ai-strategy-and-what-it-means-for-professional-services-firms/

29 Legalsifter.com, LegalSifter and Horty Springer to Offer Combined Intelligence Solution to Clients Needing Faster Contract Review, (Last visited 2018), https://www.legalsifter.com/news-horty-springer

immigration, women's rights and civil rights. [30] Road to Status, highlighted by the Chicago Tribune in August 2017, has "used algorithms and artificial intelligence to set up the system to identify whether users have a straightforward path to the most common benefits for immigration cases.[31]

If during or for the provision of legal services, law firms or other organizations either sell or bill for the use of an AI tool, consider whether any rules of professional conduct apply, such as Rule 1.8. There, the ABA suggests that attorneys avoid business transactions with clients where they may have adverse interests, unless the client provides informed consent (e.g., selling AI software to a client without some possible disclosures about the scope and nature of the tool, and whether supplemental legal advice or supervision is appropriate). Since AI tools may be complex, the industry should consider what information clients need prior to providing consent, especially for unsophisticated clients, as opposed to sophisticated individuals or multinational corporations with vast resources, who can research and review such tools.

UNAUTHORIZED PRACTICE OF LAW AND SUPERVISION

There are three main topics to explore when examining the duties around the unauthorized practice of law and the supervision of technology and attorneys.

CAN AN AI TOOL VIOLATE THE PROFESSIONAL RULES OF CONDUCT PREVENTING THE UNAUTHORIZED PRACTICE OF LAW?

According to Rule 5.5, attorneys can only practice law in jurisdictions in which they are authorized to practice. The question is whether AI tools are subject to the same rule, since they are not attorneys but may potentially provide some level of legal advice or assistance, depending on the nature of the service. This paper posits that AI software is an appropriate tool for attorneys and staff to better serve their clients, with suitable supervision, as discussed in a separate section below.

While services that only provide basic templates for agreements and other legal documents are not as advanced as AI, they certainly provide a window into this space, and whether the unauthorized practice of law (UPL) has transpired. A primary example is LegalZoom. At its origins, several state bar associations sued LegalZoom for engaging in the unauthorized practice of law, and LegalZoom operates in all fifty states, Washington, DC, and abroad. [32] To date, while the courts have ruled that automated legal document preparation tools are not practicing law, LegalZoom has posted, or been required to post, a disclaimer on every page of its site.[33] Here are a few of LegalZoom's disclaimers:

> "The information contained on this site is not legal advice. Any information you submit through this site may not be protected by attorney-client privilege and may be provided to attorneys for the purpose of determining your need for legal services..."[34]

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30 Law.com, Three Startups Are Using AI in Law for Noble Purposes, (Last visited February 2018), https://www.law.com/legaltechnews/sites/legaltechnews/2018/02/12/three-startups-are-using-ai-in-law-for-noble-purposes/; and Joinpaladin.com, (Last visited February 2018), https://www.joinpaladin.com/index.html

31 Chicagotribune.com, Chicago Startup Creates Online Resource for Immigrants Seeking Low Cost Legal Services, (Last visited February 17, 2018), http://www.chicagotribune.com/hoy/ct-hoy-chicago-startup-creates-online-resource-for-immigrants-seeking-low-cost-legal-services-20170829-story.html

32 ABAjournal.com, Latest Legal Victory has LegalZoom poised for Growth, (Last visited February 20, 2018), http://www.abajournal.com/magazine/article/latest_legal_victory_has_legalzoom_poised_for_growth

33 T. Travis Medlock v. LegalZoom.com, Inc.,(Supreme Court of South Carolina, 2012); Legalzoom.com, Inc., v. North Carolina State Bar, (State of North Carolina Superior Court Division, 2011)

34 https://www.legalzoom.com/attorneys/ (Last visited February 2018)

> "Disclaimer: Communications between you and LegalZoom are protected by our Privacy Policy but not by the attorney-client privilege or as work product. LegalZoom provides access to independent attorneys and self-help services at your specific direction. We are not a law firm or a substitute for an attorney or law firm. We cannot provide any kind of advice, explanation, opinion, or recommendation about possible legal rights, remedies, defenses, options, selection of forms or strategies. Your access to the website is subject to our Terms of Use."[35]

If we therefore presume that LegalZoom is not engaging in the unauthorized practice of law, then perhaps AI tools will also be exempt from similar ethical requirements. Keep in mind that law firms leverage AI tools to supplement, expedite, or improve the accuracy of research, document reviews, tracking billable time, and proof reading. AI is used in a support capacity rather than the tool being the sole service provider, as is the case with LegalZoom.

Based on LegalZoom's disclaimers, certain AI vendors may need to inform customers about the limitations of the services offered and highlight that the tool is not a substitute for an attorney or law firm, which differs from how law firms use AI tools, in practice. This theory is borne out in a Texas statute, proclaiming that "the practice of law does not include the design, creation, publication, distribution, display or sale of computer software or similar products–as long as the products clearly and conspicuously state that they are not a substitute for the advice of counsel."[36] Law firms by their very nature provide legal advice and operate differently than LegalZoom's template services.

This is good news for attorneys and law firms and lends credence to the argument that tools should

likely be supervised by or used at the direction of a licensed attorney, to some extent. Wendy Wen Yun Chang, a partner at Hinshaw & Culbertson LLP and a member of the American Bar Association's Standing Committee on Ethics and Professional Responsibility, further supports this view: "Either they believe it's technically impossible for a computer ever to commit UPL, or they believe that as long as a lawyer's involved in the process at some level, the use of technology cannot be the unauthorized practice of law."[37] Melissa Maleske, a Senior Legal Industry Reporter for Law360, further comments that "[t]raining and education also tie back to the consumer protection perspective of the unauthorized practice of law and the supervisory role of attorneys. While AI may be good and getting better, it's fallible, and there's no substitute for a lawyer's judgment and knowledge."[38]

In line with that approach, Ms. Chang recommends that attorneys use their legal training to spot errors, test answers, ask different questions and adjust the data, based on the circumstances.[39] She also sees a need to regulate AI vendors and require quality standards. [40] Essentially, attorneys taking advantage of AI will use a tool to perform certain tasks, but the attorney would still (1) confirm the correct data sources were input, searched or used, (2) review and validate the output, (3) build the legal strategy, (4) convince the judge and jury, or a company they wish to work with, of their position and (5) ultimately achieve the desired result.

Consequently, current legal trends indicate that AI tools are unlikely to violate ethical rules around the unauthorized practice of law, but should be supervised by attorneys, trained staff or law firms. This is also consistent with current guidance in Rule 2.1, suggesting that even if attorneys use an AI

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35 https://www.legalzoom.com/attorneys/ (Last visited February 2018)

36 Law360.com, Artificial Intelligence Raises Ethical Concerns for Attorneys, (Last visited February 2018) https://www.law360.com/articles/897965/artificial-intelligence-raises-ethical-concerns-for-attys; and Texas Government Code, Section 81.101, 1987

37 Law360.com, Artificial Intelligence Raises Ethical Concerns for Attorneys, (Last visited February 2018) https://www.law360.com/articles/897965/artificial-intelligence-raises-ethical-concerns-for-atty

38 Law360.com, Artificial Intelligence Raises Ethical Concerns for Attorneys, (Last visited February 2018) https://www.law360.com/articles/897965/artificial-intelligence-raises-ethical-concerns-for-attys

39 Biglawbusiness.com, Time to Regulate AI in the Legal Profession Perspective, (Last visited February 2018) https://biglawbusiness.com/time-to-regulate-ai-in-the-legal-profession-perspective/

40 Biglawbusiness.com, Time to Regulate AI in the Legal Profession Perspective, (Last visited February 2018) https://biglawbusiness.com/time-to-regulate-ai-in-the-legal-profession-perspective/

tool, they must nevertheless "exercise independent professional judgment."

WHAT RULES OF SUPERVISION DO LAW FIRMS HAVE WHEN ITS ATTORNEYS USE AI TOOLS OR OUTSOURCE TECHNOLOGICAL PROCESSES?

Consistent with Rule 5.3, attorneys can "outsource legal and non-legal support services" so long as they (1) reasonably assure that vendors follow the rules of professional conduct and (2) understand they may be responsible for the vendors' violations.[41] There is a broad range of permissible outsourcing, such as maintaining a database (e.g., e-discovery efforts), using cloud or IT services to store or manage client information, hiring a legal research service, or even engaging attorneys to develop legal strategies.[42] When outsourcing services to another attorney, ethical opinions do recommend "conducting reference checks" and "investigating the [attorney's] background." [43]

Along the same lines, an attorney should be able to outsource tasks to someone operating an AI tool, or possibly an AI tool, with the proven capability to yield accurate results and comport with the rules of professional conduct.[44] In practice, the tool may need to have certain features, including encryption options, data disposal functionality, and validity checks and quality control.

Even so, while the legal community can agree that outsourcing tasks, using an AI tool, is acceptable, an attorney still remains responsible for supervising the operator and the tool, and thus should possess sufficient technology competence. [45] With these presumptions in place, the onus could ultimately be on all parties, working together, including the operator, the tool, and the attorney to maintain confidentiality, demonstrate competence and diligence, and avoid conflicts of interests.

WHAT OBLIGATIONS ARE PASSED ON TO JUNIOR AND SENIOR ATTORNEYS WHEN USING AI TOOLS?

On one hand, Rule 5.2(b) instructs junior attorneys to follow the rules of professional conduct even when acting at the direction of a senior attorney. Since law students are now learning about the use of technology and AI during law school, as discussed earlier, they may be more adept and tech-savvy than senior attorneys, and thus may be in a position to ensure both junior and senior attorneys adhere to ethical rules. Indeed, law students at Vanderbilt, Northwestern, Michigan State, and Chicago-Kent, among others, are part of programs focusing on innovation and technology in conjunction with the practice of law.[46]

On the other hand, Rule 5.1 indicates that the direct supervisory authority over another attorney must "make reasonable efforts" to ensure that the other attorney conforms to the rules too. With that in mind, Ronald Minkoff, a partner at Frankfurt Kurit Klein & Selz PC, conveys that "we assume that (junior lawyers) know what they're doing, so we tend to turn it over to them."[47] Mr. Minkoff goes on to advise that law firms should "do a much better

41 American Bar Association, Lawyer's Obligations When Outsourcing Legal and Nonlegal Support Services, August 5, 2008, available at https://c.ymcdn.com/sites/ncbp.org/resource/resmgr/2016_MM/2016_MM_Handouts/1B-Outsourcing-ABA_Opinion_0.pdf; and Center for Professional Responsibility, Rule 5.3, available at https://www.americanbar.org/groups/professional_responsibility/publications/model_rules_of_professional_conduct/rule_5_3_responsibilities_regarding_nonlawyer_assistant.html

42 American Bar Association, Lawyer's Obligations When Outsourcing Legal and Nonlegal Support Services, August 5, 2008, available at https://c.ymcdn.com/sites/ncbp.org/resource/resmgr/2016_MM/2016_MM_Handouts/1B-Outsourcing-ABA_Opinion_0.pdf

43 American Bar Association, Lawyer's Obligations When Outsourcing Legal and Nonlegal Support Services, August 5, 2008, available at https://c.ymcdn.com/sites/ncbp.org/resource/resmgr/2016_MM/2016_MM_Handouts/1B-Outsourcing-ABA_Opinion_0.pdf

44 American Bar Association, Lawyer's Obligations When Outsourcing Legal and Nonlegal Support Services, August 5, 2008, available at https://c.ymcdn.com/sites/ncbp.org/resource/resmgr/2016_MM/2016_MM_Handouts/1B-Outsourcing-ABA_Opinion_0.pdf

45 American Bar Association, Lawyer's Obligations When Outsourcing Legal and Nonlegal Support Services, August 5, 2008, available at https://c.ymcdn.com/sites/ncbp.org/resource/resmgr/2016_MM/2016_MM_Handouts/1B-Outsourcing-ABA_Opinion_0.pdf

46 Vanderbilt.edu, Program on Law & Innovation, (Last visited on March 24, 2018), https://law.vanderbilt.edu/academics/academic-programs/law-and-innovation/index.php; Northwestern.edu, Northwestern Pritzker School of Law, (Last visited March 2018), http://www.law.northwestern.edu/about/news/newsdisplay.cfm?ID=905; Legalrnd.org, Center for Legal Services Innovation at Michigan State University College of Law (Last visited March 2018), http://legalrnd.org/; Kentlaw.iit.edu, Chicago-Kent College of Law, (Last visited March 2018) https://www.kentlaw.iit.edu/academics/jd-program/certificate-programs/legal-innovation-and-technology

47 Law360.com, Artificial Intelligence Raises Ethical Concerns for Attorneys, (Last visited February 2018) https://www.law360.com/articles/897965/artificial-intelligence-raises-ethical-concerns-for-attys

job at training our associates and ourselves on the technology side"
and understand "what these machines and these programs can and
can't do."[48] Taking into account Rule 5.2(b) and 5.1, ownership for ethical
compliance is on both junior and senior attorneys, who must leverage
each other's expertise to successfully provide legal services in this new
age.

CONCLUSION

AI tools provide law firms with numerous opportunities to enhance the
quality and improve the time to delivery of legal products and services,
deliver those products and services more efficiently (i.e., at a lower
price point), enhance the skills and knowledge of attorneys and business
staff and otherwise improve firm operations. To realize the potential
of this technology, law firm staff (including information technology,
knowledge management, marketing, conflicts, accounting and attorney
personnel) must work closely with technology developers to build
advanced tools and acquire the skills necessary to properly develop and
deploy the technology. Firms that do not prepare to take advantage
of the benefits of AI run a high risk of missing out on what now may
be considered competitive advantages but in the near future may be
considered standard offerings. Though risks abound on this new frontier,
including retention, security, privacy and engineering risks, firms that
make strategic investments in their people, processes and technologies
to advance business goals have a high likelihood of greatly enhancing
the value of their enterprises (including headcount reductions and
productivity gains).

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48 Law360.com, Artificial Intelligence Raises Ethical Concerns for Attorneys, (Last visited February 2018) https://www.
law360.com/articles/897965/artificial-intelligence-raises-ethical-concerns-for-attys

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