I. Introduction

Legal innovators are frequently tasked with researching new digital products to not only address current demands in the legal industry, but to improve a lawyer’s efficiency and create additional business opportunities.1 In 2021, the global law firm, Clifford Chance launched a suite of automated tools, called VIMA Solutions, to support startups, entrepreneurs, venture capitalists and angel investors with

---

1 See Unlock the Key to Automation to Reduce Lawyer Burnout, LEGAL PRAC. INTELL. (Sept. 20, 2022), archived at https://perma.cc/ZJT9-2K6E (emphasizing that the right technology for a lawyer can decrease stress and increase productivity). See Jessi Adler, ZERO Announces Apollo, its Latest AI-Driven Productivity Automation Tool for the Legal Industry, CISION PR NEWswire (Oct. 21, 2021), archived at https://perma.cc/EL3C-JFFD (explaining the benefits of the automated legal service). “Apollo provides three key benefits to lawyers and their support staff: 1) ensuring the quality and relevancy of time entries; 2) reducing the hours spent on manual timekeeping; and 3) increasing revenue for law firms.” Id. See also Joe Patrice, Saving Law Firm Billables Begins With Automation, ABOVE THE L. (Oct. 21, 2021), archived at https://perma.cc/ET25-AJBE (noting where a lawyer wastes time on administrative work and how Apollo aims to give timekeepers the tools to concentrate on more important work).
their legal needs. This traditional automation technology assists business owners in the development of legal documentation for early-stage startup financing. Document automation is just one example of the use of automation that is enabling the legal industry to be more productive and to generate more widespread access to legal services.

Traditional automation describes a wide range of technologies that reduce human intervention into processes. There are forms of automation such as Robotic Process Automation (RPA), which has evolved rapidly over the last few years. RPA takes automation one

---

2 See Joanne Chuang, Enhancing the creation of financing documents, CLIFFORD CHANCE (Sept. 20, 2022), archived at https://perma.cc/L7GT-HVSA (explaining that VIMA documents accelerate business discussions and save time and money).

3 See Steven Lerner, Clifford Chance Releases Tech To Automate Startup Docs, LAW360 PULSE (May 25, 2021) archived at https://perma.cc/EG8X-A2GP (stating that the intent behind the automated design was to make these documents more accessible to first-time entrepreneurs and investors).

4 See Doc Auto Database of 250 Companies Launches to Help Lawyers Choose, ARTIFICIAL LAWYER (Mar. 14, 2022), archived at https://perma.cc/LG79-UJE7 (explaining the database which is helping lawyers choose an automation provider that fits their needs).

5 See Unlock the Key to Automation to Reduce Lawyer Burnout, supra note 1 (providing an explanation of the various subsets of automation which support a lawyer’s role). See What is automation?, IBM (Feb. 20, 2022), archived at https://perma.cc/X63Y-42Q5 (providing an overview of automation).

Basic automation takes simple, rudimentary tasks and automates them. This level of automation is about digitizing work by using tools to streamline and centralize routine tasks, such as using a shared messaging system instead of having information in disconnected silos. Business process management (BPM) and robotic process automation (RPA) are types of basic automation.

6 See Robotic Process Automation vs Traditional Automation, MARUTI TECHLABS (2022), archived at https://perma.cc/3DLC-Y5QG (explaining that “[r]obotic process automation (RPA), also known as software robotics, uses automation technologies to mimic back-office tasks of human workers, such as extracting data, filling in forms, moving files…”).

6 See Robotic Process Automation vs Traditional Automation, MARUTI TECHLABS (2022), archived at https://perma.cc/3DLC-Y5QG (explaining that “[r]obotic process automation (RPA), also known as software robotics, uses automation technologies to mimic back-office tasks of human workers, such as extracting data, filling in forms, moving files…”).

step further by using software that automates a business process without the actual presence of a robot. RPA is a software tool that operates on the user interface of other computer systems in the same way a human would. Across various industries, businesses are increasingly utilizing automation technologies to streamline operations, reduce cost, and increase revenue, but automation is especially suitable for the legal industry. Modern legal departments operate with business-driven objectives by recognizing the need to work diligently while minimizing costs to the firm and to respective clients. Automation and RPA for legal environments holds great

automation has evolved over the ages and RPA emerges in the 2000s when Blue prism released their first product in 2003).

7 See Praveen Menon, Benefits of using Robotic Process Automation in law firms & legal departments, ACCUBITS BLOG (Feb. 25), archived at https://perma.cc/8V5M-FU7D (explaining that RPA is a form of automation that runs on a computer and performs tasks). “It copies the interaction between humans and machines and empowers the business to configure the task that they want automated.” Id. The software can search, interpret, communicate and process information, emulating a human but faster and more efficiently, and evades the probabilities of errors in mundane, tedious tasks. Id.

8 See Anand Kannan, RPA in Manufacturing - Automate Monotonous Tasks for Better Productivity & Outcomes, IMPIGER TECH. (Feb. 19, 2018), archived at https://perma.cc/V973-VVTP (defining “[Robotic Process Automation as] a set of concepts and technologies designed to intelligently automate repetitive business, industrial, and other tasks.”). See also Robotic Process Automation (RPA), UiPATH (Nov. 21, 2021), archived at https://perma.cc/97FR-E4Q7 (defining “[r]obotic process automation (RPA) is a software technology that makes it easy to build, deploy, and manage software robots that emulate human actions interacting with digital systems and software.”). See Shailee Parikh, What is RPA and how it is used in different industries?, DATAFLOQ (Dec. 18, 2020), archived at https://perma.cc/57ZY-RJFS (showing the application of RPA across industries such as banks and finance, insurance, healthcare, manufacturing and life sciences).


10 See Why Legal Workflow Automation is Important to Law Firm Success?, MATTER SUITE (July 27, 2021), archived at https://perma.cc/PB8V-5YPK (highlighting the significant of an investment in automation and the benefits of automation within the legal industry). “Legal automation is designed to streamline the law practice operations smoothly. Automating document management to gaining more clients, everything can be achieved with legal automation.” Id. See Creating a More
potential as it can save time that is spent on filing, paperwork, and other tedious tasks and help the lawyers focus more on their cases.\textsuperscript{11} Despite this suitability, there is some push-back from lawyers and law firm alike in implementing legal automation technology into day-to-day operations.\textsuperscript{12} By nature, lawyers are innovators, and the law is continuously adapting to new and improved technology that is continuously disrupting the industry.\textsuperscript{13} Legal automation including RPA, is one example of the type of technology that will transforms a lawyer’s traditional role in society and encourage change and adaptation within the legal profession.\textsuperscript{14}

\textit{Effective Legal Department through Robotic Process Automation (RPA), UiPATH (2021), archived at} https://perma.cc/UQJ6-4DLZ (quoting a SVP of Legal and Business Affairs, Roberto Facundus, “[e]specially for in-house counsel, anything that saves time is welcome . . . [a]ny legal tech that saves an attorney time through increased efficiency is inherently valuable.”).

\textsuperscript{11} See Michael Tupek, \textit{Automation In The Legal Industry}, SCION ANALYTICS (Aug. 4, 2021), archived at https://perma.cc/FXH5-73NM (noting that electronically signed and managed contracts, digital templates, use of Artificial Intelligence (AI), and billing processes are a few examples of examples of automation in the legal industry). \textit{Id.} See Menon, supra note 7 (defining RPA as a technology that can increase the efficiency of any business by minimizing redundant and tedious tasks).

\textsuperscript{12} See Peeyush Singh, \textit{What’s the Role of Technology in the Legal Sector?}, APPINVENTIV (May 27, 2022), archived at https://perma.cc/L7UY-V72Y (noting the challenges which delay the use of legal technologies includes a lack of understanding, organizational issues, and financial barriers). See Gary E. Marchant, \textit{Artificial Intelligence And The Future Of Legal Practice}, DOCUMENT CRUNCH (Oct. 22, 2021), archived at https://perma.cc/9JJB-2T4P (explaining the discomfort for many attorneys reading news headlines regarding the alarming prediction of artificial intelligence (AI) replacing lawyers with “robot lawyers”).

\textsuperscript{13} See Jordan Bigda, \textit{The Legal Profession: From Humans To Robots}, 18 J. HIGH TECH. L. 396, 397 (2018) (stating that “[l]egal innovators are looking for new ways to streamline and make practicing law more efficient and less expensive for clients.”). See \textit{Why attorneys need to keep up with legal tech advances}, THOMSON REUTERS (Feb. 25, 2020), archived at https://perma.cc/VY7H-YTLC (providing that tech needs to be an integral part of a law firm’s practice). “If you and your firm aren’t looking for ways to leverage the latest legal technology, chances are good you’re falling behind your competition.” \textit{Id.} “The future is here...[l]aw firms that want to steer their own future can’t let it pass them by.” \textit{Id.}

This note will focus on the technological milestones in the legal profession, which has led to the adoption and implementation of automation. Historically, automation in the legal profession has been lacking, despite its long-term presence. Additionally, this note will describe the current use of automation technologies in the legal industry, and why the continued use of automation is imperative to the future of the industry. Furthermore, this note will address how automation in the legal industry is among the most promising and powerful legal technology trends and will keep on growing in the future as well. Finally, this note will look deeper into the urgent prioritization of automation technologies and how legal organizations cannot compete with new-age legal service providers if they ignore legal technologies.

II. History

A. The Evolution of Automation

In order to understand the value of automation technologies in the legal profession, we must understand the origin and evolution of automation.\(^\text{15}\) Traditional automation technologies have been implemented into businesses across the majority of all industries for some time, but legal automation technologies have quickly advanced

\(^{15}\) See Rachel Makinson, 5 Legal Trends to Look Out For In 2022, LAWYER MONTHLY (Dec. 9, 2021), archived at https://perma.cc/PL4Y-K3MD (noting that automation is a technological advancement that has changed the legal sector in recent years).

[W]orkflow automation is set to be another leading legal trend for 2022. According to a 2018 study by researchers at the McKinsey Global Institute, 23% of a lawyer’s work is automatable. Meanwhile, Deloitte predicts that 100,000 legal roles will come to be automated by 2036. Automation is already becoming increasingly popular within the sector as firms recognize automatable tasks to boost efficiency and reduce expenses. A reduction in manual work and repetitive tasks, ease in record-keeping, and usage metrics are amongst the key benefits reported by firms that have already made the shift.

Id.
in development in recent years. Beyond traditional automation, RPA is a form of business process automation technology that uses software robots to automate tasks performed by humans. The term “robotic” can be misleading, as it has nothing to do with physical robots, but instead, it is a software tool that digitizes highly repetitive work processes. Leading automation providers and researchers have demonstrated that the development of the cognitive technologies together has made the developments in RPA software an increasingly impactful platform.

16 See Nick Ostdick, The Evolution of Robotic Process Automation (RPA): Past, Present, and Future, UiPATH (July 26, 2016), archived at https://perma.cc/T7JV-A599 (stating how traditional automation has been around for a while, but RPA technologies have quickly evolved during the last few years).

17 See Clint Boulton & Thor Olavsrud, What is RPA? A Revolution in business process automation, CIO (Sept. 3, 2018), archived at https://perma.cc/K76C-93ZC (defining RPA as “an application of technology, governed by business logic and structured inputs, aimed at automating business processes”). RPA requires proper design, planning and governance if it’s to increase production of businesses. Id.

18 See Salim Sheikh, Robotic Process Automation (RPA) - debunked and demystified, LINKEDIN (Apr. 4, 2021), archived at https://perma.cc/5XYA-F3UR (stating RPA is a software and not a physical robot). See also Kevin Casey, How to explain Robotic Process Automation (RPA) in plain English, THE ENTERPRISERS PROJECT (July 30, 2020), archived at https://perma.cc/YL3F-LMDH [hereinafter How to explain Robotic Process Automation (RPA) in plain English] (quoting Kofax chief Strategy officer, Chris Huff, “[r]obotic process automation is not a physical [or] mechanical robot”). See Kannan, supra note 8 (stating that “RPA has little to do with what we commonly understand as ‘robots’ in the conventional sense of the word.”). “RPA is defined by algorithms that are built to enhance return on investment (ROI), boost execution speed, and improve the quality of business results.” Id.

19 See Patrick Laurent et. al., Intelligent automation entering the business world, DELOITTE (Oct. 24, 2021), archived at https://perma.cc/7CPB-Y33Z (defining RPA as the combination of artificial intelligence and automation, which is also referred to as intelligence automation). See also How to explain Robotic Process Automation (RPA) in plain English, supra note 18 (explaining the benefits of traditional business units, like customer service or human resources, have repetitive processes and RPA implementations could benefit them directly by reducing drudge work in their day-to-day jobs). See Shailee Parkih, Top 8 Benefits Of RPA (With Real Examples), NIVIDOUS (April 7, 2021), archived at https://perma.cc/G9DY-PDAY (providing the eight leading benefits of RPA: increased productivity for mission-critical business tasks, stress-free compliance with legal and regulatory requirements, quick, low-impact implementation, better customer experiences, lower data processing costs, scalability to meet dynamic workloads, more valuable resource utilization, and quicker return on investment than traditional IT projects).
The continuous developments of cognitive technologies such as Machine Learning (ML), Natural Language Processing (NLP), and Artificial Intelligence (AI) are all a part of the emergence of the technology that most closely resembles RPA today.20 RPA is often seen as an extension of three key predecessors: screen scraping software, workflow automation and management tools, and AI.21 The first development in RPA software was screen scraping, which is the act of copying information that shows on a digital display so it can be used for another purpose.22 Screen scraping software is still used heavily in the furtherance of automation technology to replicate user’s interactions to achieve specific processes.23 Workflow automation is

20 See History of Robotic Process Automation (RPA), ROBOMOTION (April 4, 2021), archived at https://perma.cc/T93K-7GSV (stating machine learning, invented in 1959 by Arthur Samuel, were the most important technologies for the development of RPA technology). “Beginning in the 1960s, this branch of science combined AI with interactions between computers and human languages . . . [t]his combination created a major step forward in the creation of RPA technology.” Id.
21 See Ostdick, supra note 16 (describing the terms “Workflow Automation and Management Tools” and how this was first introduced in 1920 and later became more popular in the 1990s). See also Workflow Automation, INTEGRIFY (Nov. 20, 2021), archived at https://perma.cc/S7FZ-53UG (defining workflow automation as “the design, execution, and automation of processes based on workflow rules where human tasks, data or files are routed between people or systems based on pre-defined business rules.”). See also What Is Workflow Automation And Why Do You Need It?, HIGHGEAR (June 3, 2019), archived at https://perma.cc/C2GD-B9PG (explaining that workflow automation enables the replacement of paper-based and manual processes using digital tools, typically using a single work platform which integrates with existing business systems and controls). Workflow automation is designed from role-based permissions and is far less reliant on human memory. Id.
22 See Han-Wei Liu, Two Decades Of Laws And Practice Around Screen Scraping In The Common Law World And Its Open Banking Watershed Moment, 30 WASH. INT’L J. 28, 28 (2020) (describing screen scraping as a software agent to mimic browsing interactions between web servers and people). Screen scraping is the process of having "an agent to download, parse, and organize data from the web in an automated manner.” Id. See Amanda Porter, Evolution of RPA, CAPACITY (Nov. 23, 2019), archived at https://perma.cc/7B9X-ZGX7 (noting the concept of AI has been around since the 1950s).
23 See David Brain, RPA Technical Insights, Part 10: Why Screen Scraping is Essential to the RPA Toolkit, SYMPHONYHQ (Dec. 8, 2016), archived at https://perma.cc/8T9U-FUP3 (explaining how screen-scraping is a useful tool featured within RPA, and often the screen-scraping is embedded in RPA, where its presence is not obvious).
an approach to making the flow of tasks, documents and information across work-related activities perform independently in accordance with defined business rules.24 The origin of workflow automation is dated back all the way to the 1920s, but workflow automation and management tools were more frequently used in the 1990s as a key predecessor in the emerging automation era.25

1. Artificial Intelligence v. Robotic Process Automation

There are conflicting views on the basic relationship between AI and RPA technologies, some believe RPA is simply an extension


RPA in many aspects is both of the above, but in the next iteration. By this, I mean that whilst for example, it does look similar to screen scraping/capture and workflows it is more advanced than this: RPA is the natural evolution of these two approaches. The RPA platforms today are such that they are enterprise scalable. Processes are built by showing the robots what to do step by step rather than coding or scripting them, in exactly the same way as a human would use the end user systems.

Id.

24 See Ostdick, supra note 16 (categorizing workflow automation and management tools as one of RPA’s forefathers). See also What Is Workflow Automation And Why Do You Need It?, supra note 21 (noting key reasons why workflow automation is used including improvements in areas which are traditionally handled manually by businesses’ employees).

25 See Michael Lim, Workflow automation: 25 years of tried-and-true success, IBM (Dec. 18, 2018), archived at https://perma.cc/S67X-CY3N (explaining a brief history of workflow automation software solution in the lens of IBM technologies). In the early 1990s, the first workflow automation software solutions based on workflow engines, were released, then in the late 1990s, features such as modeling tools, business rules and more were added to analyze, model and describe business processes, and lastly in 2005, the modern era of workflow automation began.

Id.
of AI, but others look at RPA as its own sector in technology.\textsuperscript{26} While traditional RPA is designed to work in conjunction with humans by automating repetitive processes according to defined rules, AI is viewed as a technology to replace human labor and automate end-to-end.\textsuperscript{27} However, RPA, which uses structured inputs and logic, can also be combined with AI methods so that RPA agents can understand natural language, interpret unstructured data, or learn processes themselves.\textsuperscript{28} AI is technology demonstrating the ability of computer machines or “robots” to perform tasks that typically require human

\textsuperscript{26} See Kevin Casey, \textit{Robotic Process Automation (RPA) vs. AI, explained}, ENTERPRISERS PROJECT (Aug. 12, 2019), archived at https://perma.cc/KPU4-GN8S [hereinafter \textit{Robotic Process Automation (RPA) vs. AI, explained}] (explaining the differences between RPA and AI, how they work together and best practices of the two technologies). \textit{See also} Prem Khatri, \textit{RPA vs. AI (Or Are They Better Together?)}, CHETU (Mar. 8, 2022), archived at https://perma.cc/2ERV-NEQK (explaining that “Artificial Intelligence is an umbrella term for technologies like RPA and it also describes a computer’s ability to mimic human thinking.”). “RPA is a rule-based software that has no intelligence and automates repetitive tasks.” \textit{Id.}

\textit{See Patrick Laurent et. al., supra note 19} (defining RPA and AI technologies).

\textit{A useful definition of Artificial Intelligence (AI) is the theory and development of computer systems able to perform tasks that normally require human intelligence. Robotic Process Automation (RPA), a synonym to AI, is the application of technology allowing employees in a company to configure computer software or a ‘robot’ to reason, collect and extract knowledge, recognize patterns, learn and adapt to new situations or environments.}

\textit{Id.}

\textsuperscript{27} See Prabhdeep Singh, \textit{What Are AI and RPA: The Differences, Hype, and When to Use Them Together}, UiPATH (Aug. 3, 2020), archived at https://perma.cc/XJ78-MT54 (stating that AI is a complementary sibling to RPA, and RPA and AI work in tandem to expand automation into all sorts of new areas allowing you to automate more and complex tasks). RPA and AI are a part of a range of technologies, where “[o]n one side of the spectrum lies RPA, which thrives in systems that have a clear, step-by-step flow. On the other side sits AI, which can augment and improve human decision making in complex processes.” \textit{Id.}

\textit{See Sascha Alpers et al., Legal challenges of Robotic Process Automation (RPA) in administrative services, CEUR (2019), archived at https://perma.cc/HGD9-7Z9J (providing a “perspective with regard to digitalization, automation up to autonomation of administrative tasks.”)).

\textsuperscript{28} See Paula Williams, \textit{Intelligent Automation: How Combining RPA and AI Can Digitally Transform Your Organization}, IBM (Sept. 7, 2021), archived at https://perma.cc/63PH-M2B8 (explaining that AI is the perfect complement to RPA). “[T]ogether providing more accurate and efficient automation powered by an informed knowledge base.” \textit{Id.} “AI is the process behind the effort to simulate human intelligence in machines, while RPA automates processes that use structured data and logic.” \textit{Id.}
intelligence, and the programing is based on three techniques: learning, reasoning, and self-correction. 29 In comparison, RPA technologies are rule-based processing, and the technology will not adapt to changes without human intervention and programing. 30 Although there are fundamental differences in the two technologies, the AI technologies that enhance and imitate human judgment and behavior complement automation technologies, which replicate rules-based human actions. 31

2. Leading Automation Providers

Although these foundational technologies have been around for decades, the first RPA software was developed in the early 2000s. 32 Blue Prism is the most established RPA vendor in the market, having been founded in 2001 by a team of software automation experts, and the company essentially coined the term “RPA.” 33 The initial software

29 See Ostdick, supra note 16 (explaining that “tasks that can be completed by AI machines are those that were previously highly dependent on humans for their judgment and decision-making ability and include, for example, financial planning and fraud detection.”).

30 See id. (noting “automation is able to streamline repetitive, rules-based business processes,” and unlike AI the “software is largely unable to deal with exceptions on its own or make decisions outside of how it has been programmed.”).

31 See How to explain Robotic Process Automation (RPA) in plain English, supra note 18 (quoting the Chief Strategy Officer at Kofax, “AI technologies that augment and mimic human judgment and behavior complement RPA technologies that replicate rules-based human actions.”). See also Robotic Process Automation (RPA) vs. AI, explained, supra note 26 (“As RPA gets paired with AI disciplines such as natural language processing or computer vision, the possibilities for effective automation grow.”). See How Robotic Process Automation (RPA) Works with Lawyers, EXIGENT (May 11, 2020), archived at https://perma.cc/45UN-LHCG (defining RPA as “… a business technology that automates routine, rules-based tasks with software bots.”). “The capabilities of RPA develop further when combined with advanced artificial intelligence (AI) applications that work alongside humans to enhance insights and productivity.” Id.

32 See John Welsh, What the History of RPA Technology Says About its Future, GLOB. PAYROLL ASS’N (Mar. 28, 2019), archived at https://perma.cc/46DD-58XB (stating the initial development of RPA was in the early 2000s).

33 See Frank Casale, Founder and CEO of IRPA sits down with Blue Prism’s Co-Founder and CEO, Alastair Bathgate, to get his outlook on the overall benefits of Robotic Process Automation, INST. FOR ROBOTIC PROCESS AUTOMATION (2021), archived at https://perma.cc/A7UC-YHSP [hereinafter Overall Benefits of RPA] (quoting the Chief Executive Officer of Blue Prism, Alastair Bathgate, “[the term]
was relatively limited in success by automating repetitive tasks with the primary focus of reducing organization’s operational cost.\textsuperscript{34} Therefore, its existence was not well-known until 2015 with the discovery of RPA combined with AI technologies.\textsuperscript{35} UiPath, Inc. (UiPath) a market leader in RPAs sector, offers an RPA platform that uses AI technologies to automatically scan a business’s processes and determine the best ones to automate.\textsuperscript{36} Since 2016, it has become increasingly more common to find RPA software in almost every field from manufacturing to healthcare.\textsuperscript{37} Insurance, healthcare, and financial service industries, each of which is inundated with manual data entry and management tasks, have seen drastic reductions in costs, enhanced productivity, and fewer instances of errors as a result of automation implementation.\textsuperscript{38} As of 2021, more businesses have become aware of the benefits of RPA and a wider adoption of RPA will only continue to increase the development and expansion of the software’s abilities moving forward.\textsuperscript{39}

\textsuperscript{34} See History of Robotic Process Automation (RPA), supra note 20 (explaining how RPA technology has reached a booming point in the last few years). “[Research] show[s] that RPA technology will be the most preferred automation technology of 2021.” Id.

\textsuperscript{35} See Welsh, supra note 32 (noting that it was not until 2015 when RPA began to enter the mainstream).

\textsuperscript{36} See Georgeta Gheorghe, The story of UiPath – How did it become Romania’s first unicorn?, BUS. REV. (Sept. 4, 2018), archived at https://perma.cc/GHH4-QRG3 (explaining the history of UiPath as a company originally named DeskOver). “In 2015 DeskOver became UiPath and concluded its first partnerships with several global BPO and consulting firms. Moreover, the company opened its US office, UiPath Inc, and expanded the team from the core of 10 to over 100.” Id.

\textsuperscript{37} See Phil Fersht, A third of enterprises are making significant investments in RPA, HORSES FOR SOURCES (June 22, 2017), archived at https://perma.cc/B5FW-F5ER (stating key industries, such as banks, software, energy, and retail are making significant investments in RPA technologies and digital organizations must automate their processes to ensure success).

\textsuperscript{38} See Nick Ostdick, Looking Forward, Looking Back: Five Key Moments in The History of RPA, UiPATH (Dec. 6, 2016), archived at https://perma.cc/A4RX-LZVT (noting five key moments in the history of RPA and their significance in the growth of this technology).

\textsuperscript{39} See Welsh, supra note 32 (noting experts’ predictions of the future for RPA including wider adoption and expansion into more sectors). See also Boulton, supra note 17 (explaining the benefits to RPA in organizations including that they are low-cost and easy to implement, and do not require custom software or deep systems integration).
B. Automation in the Legal Industry

The dramatic impact of technology within the legal industry is constantly redefining the practice of law.\(^{40}\) For example, despite recording sound machines invention long before the 1950s, it was not until 1953 where dictation machines were marketed specifically to law firms.\(^{41}\) In the 1960s, lawyers were concerned with the future application of computer technology in the practice of law.\(^{42}\) In the 1980s, the major technological advancement, which was impacting the depleting number of associates, was digitalized legal research.\(^{43}\) Around this time, Westlaw and Lexis became accessible on personal computers (PC), which increased efficiency and decreased costs.\(^{44}\)

\(^{40}\) See Singh, supra note 12 (noting legal technology as a “key driver” that has transformed the industry over the last five decades). See Dana Remus & Frank Levy, Can Robots Be Lawyers? Computers, Lawyers, and the Practice of Law, 30 GEO. J. LEGAL ETHICS 501, 503 (2017) (noting that, “[t]he [i]nternet, email, and legal research databases like Westlaw and Lexis have been impacting and altering legal practice for decades.”). See Juro Knowledge Team, What is legal automation and how do I start?, Juro (Feb. 9, 2021), archived at https://perma.cc/4D3Y-Z2ME (stating the various environments which the legal industry has been effected by automation.). “While process automation isn’t new, in the context of a legal profession largely unchanged since the advent of email and word processing, the adoption of automated solutions is still in its infancy for lawyers.” Id.

\(^{41}\) See A (Very) Brief History of Legal Technology, SMOKEBALL (Jan. 30, 2020), archived at https://perma.cc/BUP6-6TBQ (explaining how technological industries began to market directly to law firms in the 1950s).


There are many lawyers who believe that the fruits of the new Industrial Revolution will benefit the legal profession as well as others. There are other lawyers who seem to be frightened by the prospect. The computer is not a substitute for lawyers and judges. It is a tool that will lighten their burdens and aid them in achieving clear thinking more readily and with less fatigue. The day when computers will serve the legal profession is not yet here.


\(^{44}\) See Jason Krause, 100 innovations in law, ABAJOURNAL (Apr. 1, 2015), archived at https://perma.cc/3AQ7-T6FM (showcasing how computerized legal research increased efficiency). See Bigda, supra note 13 at 420 (summarizing why firms no
Leading into the 1990s, computer networks and e-mail use became increasingly popular in law firms. With each technological advancement came adaptation and implementation to further along the legal profession. Legal automation is the machine-execution of legal tasks, processes, and workflows, in part or in its entirety. Legal automation simplifies the design, management, execution, and automation of legal tasks, workflows, processes, and decision-making, based on predefined rules.

There are many reasons why the legal industry is lagging behind other industries when it comes to embracing automation. It longer needed as many associates as possible to do legal research and why firms did not need the physical space in the law libraries). See Why attorneys need to keep up with legal tech advances, supra note 13 (noting the practice of law has always relied on precedents and traditions).

Attorneys have a history of adopting new technologies that help them move more quickly and avoid getting bogged down by tedious tasks. Computerized legal research came on the market in the 1970s, and law firms embraced it. When that capability was made accessible to PCs in the early 1980s, the legal tech boom was off and running.

Id.  
45 See A (Very) Brief History of Legal Technology, supra note 41 (noting that by the early 1990s most law firms were utilizing new technologies in daily practice, such as creating digital documents on computers and communicating within internal networks).

46 See id. (stating “[l]egal technology tools have been revolutionizing the way lawyers do business and making it possible for law firms to service more clients for less money.”). See HOW LEGAL AUTOMATION HELPS LAWYERS, SANTA BARBARA & VENTURA COLLS. L. (Oct. 22, 2020), archived at https://perma.cc/KN7U-37JM (highlighting that due to the frequent evolution of technology, professionals tend to struggle to stay up to date on new advancements). “The legal system is not immune to this issue, as lawyers need to continuously develop and evolve their reasoning and approach to problems to align with modern solutions.” Id.

47 See Automation in Law – what is the status quo?, BRYTER (Jan. 30, 2022), archived at https://perma.cc/7YHF-3DVP (explaining that in the legal industry automation is slow to reach its potential, but various other industries have made advancements with automation).

48 See What is legal automation and how does it work?, PLEXUS (Feb. 20, 2022), archived at https://perma.cc/Q64M-5B5R (defining legal automation as a “software is a category of software that allows companies to streamline, automate, manage and measure [l]egal tasks.”).

49 See Singh, supra note 12 (noting the challenges which delay the use of legal technologies include a lack of understanding, organizational issues, and financial
is often it is not easy to spot the areas, workflows, and processes that are suitable for legal automation. In addition to that, automation poses security risks, additional regulations and concerns regarding safe data storage. Despite these concerns from lawyers, automation has provided lawyers more access to work than ever before. More recently, technology and automation software have become an integral part of modern legal practices. At its core, automation is designed as a solution for lawyers by allowing legal teams to increase productivity. Law firms have implemented legal automation software in various areas such as digitalizing all incoming client-related documentation, accounts payable automation for invoice-processing barriers). See Vasile Tiple, Robotic Process Automation to transform legal sector, TECHRadar (Feb. 4, 2020), archived at https://perma.cc/BG5D-K89A (quoting that “as one of the longest established professions, the legal sector has previously been resistant to adopt technological change, for cultural, competitive, and economic reasons, but the industry is taking steps to catch up.”).

50 See Automation in Law – what is the status quo?, supra note 47 (explaining that automation in the law still lags behind its potential, while other industries demonstrate impressive advancements through automation).

51 See Alex Siryi, Automation In The Legal Industry: Has The Time Come To Change The Status Quo?, CATWARE (Sept. 3, 2021), archived at https://perma.cc/VLY7-K3X3 (explaining that automation opens “a Pandora’s Box of security risks, additional regulations, concerns regarding safe data storage, etc.”).

52 See Debra Cassens Weiss, Will technology create a lawyer ‘jobs-pocalypse’? Doomsayers overstate impact, study says, ABAJOURNAL (Jan. 5, 2016), archived at https://perma.cc/8QD4-5FA7 (highlighting the concerns from researchers that categorized tasks based on the percentage of lawyer hours that could be reduced by automation). “Automated document review, for example, has a strong effect on lawyer employment, while automation would have a light effect on the tasks of advising clients, court appearances and negotiation.” Id. See Jason Tashea, #MakeLawBetter: Keynote address lays out the future of legal services, ABAJOURNAL (Mar. 9, 2018), archived at https://perma.cc/D7GS-2BRD (focusing on RPA as legal innovation, which is contrary to popular media accounts portraying RPA as the coming onslaught of robot lawyers). “[T]he future is a marriage between technology and humans, which . . . is more powerful than either group alone.” Id.

53 See Dorina Moini, Are Robots Replacing Lawyers? Not Like You Think, L. PRAC. TODAY (Dec. 13, 2019), archived at https://perma.cc/P97F-Y6S4 (describing the future of automation). “Despite the decades of warnings, we are not likely to see robo-lawyers in our lifetimes. Instead, automation will continue to help make human lawyers better at their jobs, not replace them.” Id.

transactions, compliance checks to mitigate risk, contract drafting automation, and general client communications to automate highly repetitive correspondence. For the legal profession, automation can be a valuable tool when combining business and the practice of law. In the 2018 LexisNexis Insights report "Legal Technology: Looking Past the Hype," 57% of the general counsel surveyed believed technology investments had already increased productivity, and 60% believed that the technology would help improve the accuracy of legal work in the next few years. By implementing RPA, in-house legal departments, as well as independent law firms automate many repetitive legal and compliance tasks to ensure accuracy and productivity. However, despite reports of favorable view of technology in the legal industry, law firms have been slow to include

55 See Andrew Pery & Michael Simon, Robotic Automation Can Improve Your Practice, ABAJOURNAL (July 1, 2019), archived at https://perma.cc/2MJG-JMDX (noting how RPA is a law firm’s “friend” and providing uses of RPA software). See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10, at 3 (highlighting the significance of RPA automating many repetitive legal and compliance tasks which, in turn, “allows highly skilled legal professionals to focus on . . . mastering the law and providing clients the best legal advice possible.”).

56 See Using bots can streamline law firm work, ABAJOURNAL (Oct. 2019), archived at https://perma.cc/DA2L-8M5N (explaining the push in RPA in the legal field). Lawyers are under increasing pressure from clients to boost efficiency while streamlining workflows, and automation is the key to doing more with less. By automating routine processes, firms can perform more billable work without hiring more people. Robotic Process Automation (RPA) isn’t just a way of cutting costs, it is also a largely untapped avenue for law firm growth.

57 See Mark Dodd, Legal Technology: looking past the hype, LEXISNEXIS (Oct. 4, 2018), archived at https://perma.cc/M487-YVSG (reporting on how technology can drive return on investment (“ROI”) for in-house legal teams). See also Bhutta, supra note 9 (explaining research which states that automation technologies are suitable for service-based industries including law firms).

58 See Amit Chowdhry, Law Firm BakerHostetler Hires A 'Digital Attorney' Named ROSS, FORBES (May 17, 2016), archived at https://perma.cc/3EHN-7WZA (describing how ROSS started out as a research project at the University of Toronto in 2014 before being adopted by law firms around the world). See also Bob Ambrogi, Legal Research Company ROSS to Shut Down Under Pressure of Thomson Reuters’ Lawsuit, LAWSITES (Dec. 11, 2020), archived at https://perma.cc/Q2VG-R4VD (reporting on ROSS shutting down its operations after a lawsuit).
process automation within their organizations compared to other industries such as banking, finance and energy.59

C. Ethical Background Considerations of Legal Automation

With each new technological advancement follows a detailed examination of professional ethics of a lawyer.60 The on-going duty of competence in representation of clients is an essential ethical consideration.61 In the context of ABA Model Rule 1.1 and legal automation technologies, it is important for lawyers to understand the

59 See Rob van der Meulen, 5 Legal Technology Trends Changing In-House Legal Departments, GARTNER (Feb. 24, 2022), archived at https://perma.cc/5DRS-T8XH (explaining that automation was slow-going inside legal departments prior to the pandemic). “The coronavirus pandemic created new pressures that have led more legal functions to pursue or consider automation, despite long being resistant to change in this area.” Id. See Singh, supra note 12 (explaining that lack of understanding has delayed the implementation of newer technologies in law firms). “In fact, it has been found that 36% of lawyers are unaware of the set of technology used in law firms for better purposes.” Id. See Polly, Top 5 Industries That Will Be Transformed By Robotics and Automation, ROBOTICS & AUTOMATION NEWS (June 17, 2020), archived at https://perma.cc/84MG-XV7B (citing the industries expected to thrive with robotics and automation include health and medicine, law enforcement, agriculture and food service, manufacturing and transportation).

60 See Drew Simshaw, Ethical Issues in Robo-Lawyering: The Need for Guidance on Developing and Using Artificial Intelligence in the Practice of Law, 70 HASTINGS L.J. 173, 195 (2018) (noting how “[t]echnology has always caused tension when reconciling lawyers' ethical obligations.”). See also Keith J. Broady, Downloading Technology in Legal Practice: Amendments to the Rules of Professional Conduct, LOMMEN ABDO (June 1, 2015), archived at https://perma.cc/2MYZ-AG9L (responding to the 2015 amendment of the Minnesota Rules of Professional Conduct to reflect the increasing influence of technology on legal practice). See Bigda, supra note 13, at 425 (noting differences between a human lawyer and an artificially intelligent lawyer, which must be explained and examined when determining what type of work each should be able to perform in an ethical sense).

61 See MODEL RULES OF PRO. CONDUCT r. 1.1 cmt. n.8 (AM. BAR ASS’N 2021) (defining competent representation). “To 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.” Id. See Bob Ambrogi, Another State Adopts Duty of Technology Competence for Lawyers, Bringing Total to 40, LAWSITES (Mar. 24, 2022), archived at https://perma.cc/8DJP-PWER (noting multiple states have adopted technology competence into their respective state ethical rules). “In 2012, the American Bar Association formally approved a change to the Model Rules of Professional Conduct to make clear that lawyers have a duty to be competent not only in the law and its practice, but also in technology.” Id.
benefits and risks involved, know the automated processes, and supervise the application of automation. To ensure competent representation a lawyer must review and keep all automated task up to date. A lawyer’s failure to provide competent legal services to their client can expose a lawyer to ethical discipline and malpractice suits.

A lawyer looking for assistance on their work may utilize a third party provider outside of the firm or employee legal assistants and support staff within a firm. Historically, there has been much debate on defining the practice of a non-lawyer.

In 2012, the ABA adopted an amendment to Model Rule 5.3, changing the title of Rule 5.3 from “Responsibilities Regarding Nonlawyer Assistants” to “Responsibilities Regarding Nonlawyer Assistance.”, and this minimal title change to the rule clarified the scope of Rule 5.3 encompasses nonlawyers, whether human or not. A comment to Model Rule 5.3 mentions technology vendors as one example of a non-

---

62 See also Dennis Garcia, Preparing for Artificial Intelligence in the Legal Profession, LEXIS PRAC. ADVISOR J. (June 7, 2017), archived at https://perma.cc/B5P9-KN3V (inquiring as to whether the ABA Model Rules will change because of AI, specifically Rule 1). See generally Using bots can streamline law firm work, supra note 56 (analyzing the model rules of professional conduct in light of new technologies such as RPA).

63 See Using bots can streamline law firm work supra note 56 (quoting Wojtkowiak, “There is some obligation on the lawyer’s side to be able to demonstrate competence in the use of these tools.”). Lawyers must also periodically review and update RPA tasks and have someone monitor the final output of the system. Id.

64 See Peter MacFarlane, The Importance Of Ethics And The Application Of Ethical Principles To The Legal Profession, 6 J. S. PAC. L. 1, 1–12 (2002) (defining the obligation concerning the exercise of competence and care). “A failure to exercise competence and care can give rise to an action against the lawyer for damages as well as lead to disciplinary action.” Id. “Competence and care are all about maintaining professional standards. Practitioners are cautioned to refrain from acting unless they are competent.” Id.

65 See MODEL RULES OF PRO. CONDUCT r. 5.3 (AM. BAR ASS’N. 2021) (defining responsibilities regarding nonlawyer assistance).

66 See Kathryn D. Betts & Kyle R. Jaep, The Dawn Of Fully Automated Contract Drafting: Machine Learning Breathes New Life Into A Decades-Old Promise, 15 DUKE L. & TECH. REV. 216, 232 (2017) (stating the pillar of legal ethics is that only a licensed attorney may “practice law” or perform any legal task). “When a non-attorney performs legal tasks without attorney supervision, her actions constitute the ‘unauthorized practice of law.’” Id.

lawyer, who may assist a lawyer, and the comment to the rule also explains that when using such third-party services, lawyers must use “reasonable efforts to ensure that the services are provided in a manner that is compatible with the lawyer’s professional obligations.”

Supervising the use of legal automation tools such as RPA software, triggers the same obligation in attorneys utilizing paralegals and support staff.

In a sense, lawyers and the governing disciplinary bodies have effectively prevented machines from "practicing law." The unauthorized practice of law is highlighted in ABA Model Rule 5.5, but the Model Rules do not define “practice of law” or definitive guidelines to when the use of technology may constitute unauthorized practice of law.

In *Lola v. Skadden, Arps, Slate, Meagher & Flom LLP*, 620 F. App'x 37, 39 (2d Cir. 2015), the Second Circuit distinguished between tasks performed by machines and tasks performed by lawyers. The Second Circuit found tasks that could otherwise be performed entirely by a machine could not be said to fall under the practice of law.

Consequently, *Lola v. Skadden* raises the

---

68 See Helen Geib, One Ethics Rule Leads to Another: Technology Competence and the Duty of Supervision, JD SUPRA (Sept. 1, 2020), archived at https://perma.cc/8B7Q-3G3L (emphasizing the requirement for technology competence in the practice of law).

69 See Bigda, *supra* note 13, at 425 (arguing that new law regarding the jurisdictional limitations surrounding artificially intelligent lawyers should mimic the rules of paralegals). “Due to this, new law regarding the jurisdictional limitations surrounding artificially intelligent lawyers should mimic the jurisdiccional rules of paralegals, rather than the jurisdictional laws for lawyers.” *Id.*

70 See Simon et al., *supra* note 14, at 237 (highlighting ABA Model Rule 5.5). “The American Bar Association (ABA) has backed state statutes preventing the unauthorized practice of law by those who are not barred.” *Id.*

71 See MODEL RULES OF PRO. CONDUCT r. 5.5 (AM. BAR ASS’N. 2021) (focusing on the work of a “Non-Lawyer”). The rule states a lawyer is prohibited from engaging in the unauthorized practice of law. *Id.* See also Linda Henry, The Intersection of Artificial Intelligence and the Model Rules of Professional Conduct, JD SUPRA (Feb. 5, 2019), archived at https://perma.cc/Q2FR-QERV (noting the lack of clarity and guidance on the definition of the practice of law and noting courts lack of consistency on how unauthorized practice of law is applied to software).

72 See Lola v. Skadden, Arps, Slate, Meagher & Flom LLP, 620 F. App’x 37, 45 (2d Cir. 2015) (holding a lawyer, who performed document review on a contract basis for a law firm, was not engaged in the practice of law).

73 See *id.* (concluding that tasks that could otherwise be performed entirely by a machine cannot be said to engage in the practice of law). See also Simon et al., *supra* note 14, at 244 (noting the issue of legal work was never raised during arguments).
possibility that machines can reclassify tasks that scholars traditionally considered the “practice of law” as now falling outside of the scope of the “practice of law.”

Advances in legal technology adds another level of difficulty in the predictability and understanding of what constitutes as the practice of law.

III. Premise

Automation technologies dramatically reduces an organization’s low-value workload, and RPA enables trained process owners and employees to rapidly design, test, and deploy automations. Popular uses of legal automation include data entry, data reconciliation, spreadsheet manipulation, systems integration, automated data reporting, analytics, scheduled communications, and prepopulated responses to customer inquiries. Today, automation

The issue of “legal work” performed by machines was neither raised at the district court level nor brought up by either party in briefings, and yet it became the deciding factor regarding whether Lola was practicing law . . . Or, in other words, if a task conducted by a machine requires attorney oversight, the task is part of the “practice of law.”

Id.

74 See Henry, supra note 71 (noting the “broader implications of Lola on [the unauthorized practice of law] claims are unclear, however, if machines cannot engage in the practice of law, then courts may also find that software cannot be responsible for UPL.”). See Simon et al., supra note 14, at 271 (quoting Susskind, who predicted that, “by 2015, the main way in which legal services [would be] delivered across the world [would] be through access to online legal service as opposed to consultation with human lawyers.”) (alterations in original). “Legal technology adds yet another degree of difficulty.” Id.

75 See Simon et al., supra note 14, at 271 (discussing the predictions for the future of the legal profession); see also Abigail Johnson Hess, Experts say 23% of lawyers’ work can be automated—law schools are trying to stay ahead of the curve, MAKE IT (Feb. 18, 2020), archived at https://perma.cc/MT2Z-LH9P (noting that where 23% of work done by lawyers can be automated by existing technology, the future of law is going to be very different than the law profession has been to this point with advancement in technologies).

76 See The State of Federal RPA, DIGITAL.GOV (Dec. 29, 2021), archived at https://perma.cc/MKL7-D4UA (explaining that “Robotic Process Automation (RPA) is a low- to no-code Commercial Off the Shelf (COTS) technology that can automate repetitive, rules-based tasks. RPA products vary in what they do, but all RPA technologies copy human actions.”).

77 See id. (providing a brief introduction to RPA).
use within legal industry tends to involve streamlining or lifting some of the burden of processes which would traditionally have been outsourced, such as high-volume work with clearly defined processes. Through the use of legal automation, lawyers and law firms can create more effective and profitable legal departments. Automation applications for legal practices have helped law firms save a great deal of time and money, while also aiding their business growth through increased proficiency. Over the last few years, automation

78 See How Robotic Process Automation (RPA) Works with Lawyer, supra note 31 (acknowledging that in-house legal departments and firms have a lot to gain from simplifying and streamlining their processes through technology because legal professionals are struggling to keep up with the rapidly growing workload). In recent years, legal departments and law firms face more demand than ever, but utilizing RPA can address the issues from excessive caseloads to ever-evolving legislation, compliance and regulations. Id.

79 See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (stating that 82% of legal departments expect their legal needs to increase, but only 28% are hiring and RPA can fill that gap). RPA lends itself to particular tasks such as export control, regulation checks, and contract management. Id. Automating tasks can significantly reduce the time that paralegals and more experienced lawyers spend performing manual, repetitive tasks. Id. See Bhutta, supra note 9 (reporting the findings from a recent study, “Legal Technology: Looking Past the Hype,” which found that “57% of the general counsel surveyed believed technology investments had already increased productivity, and 60% believed that the technology would help improve the accuracy of legal work in the next few years.”). See Vandana Mohanchandran, Robotic Process Automation – Will It Make or Break the BPO Industry? SUPPLY WISDOM (Aug. 11, 2022), archived at https://perma.cc/3H5V-MLYT (noting the various benefits to RPA including labor cost reduction).

80 See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (citing RPA as a solution for modern legal departments’ challenges by providing relief from a number of mundane, repetitive legal and compliance tasks). RPA improves operational efficiency so that legal professionals can focus on higher-value legal and compliance matters. Id. See Bhutta, supra note 9 (reporting the completion of a case study on the use of RPA in immigration legal services). An example of legal automation from a “Dallas-based global corporate immigration law firm Berry Appleman & Leiden LLP (BAL)… successfully introduce[d] automation in several areas of its internal and client-facing processes.” Id. “The firm created an automation project team to identify front- and back-office processes suitable for automation and applied automation to new client onboarding, client request management, and administrative and clerical tasks.” Id. See Menon, supra note 7 (providing case study examples of where RPA is benefiting legal departments).

In another example, [Husch Blackwell] helped a firm in moving 1700 property lot records from their inhouse database to a cloud-
has emerged as an advantage for legal teams, and helping both the lawyers and their clients by taking away the attention from tasks that can be automated.\textsuperscript{81}

\textit{A. Current Use of Legal Automation}

Legal automation is possible in all legal areas; however, some areas of law are more suited to automation than others.\textsuperscript{82} Legal automation is best suited in areas that have clearly defined legal rules and processes, questions and problems that routinely and often recur, and low level of fact-finding.\textsuperscript{83} Legal process automation uses AI and based system without any manual process involved. Their cloud application was unable to load and validate solicitor records. With an automated process of reading an excel file and validating each cell, the RPA inserting it into an E-Conveyancing platform. The RPA saved 1500 hours of work time by processing it in 4 hours, with 100\% data accuracy.

\textit{Id. See Automation Provides a Solution to Improve Law Firm Profitability, EFFORTLESSLEGAL (Apr. 20, 2022), archived at https://perma.cc/Y5JD-SUJD (stating that automation technologies maximize law firms’ abilities and level of efficiency).}

\textit{81 See Bhutta, supra note 9 (reinforcing the benefits of using RPA in legal industries provides for focused attorney-client relations).}

Law firms can benefit from automating certain front-office and back-office tasks — from processing case inquiries and forms to searching for documents to organizing files — enabling attorneys and legal assistants to focus on white-glove services for their clients. Examples of how law firms have leveraged RPA include classification, extraction and processing of structured and unstructured data from legal documents, as well as contextual searching of information across data sources. Imagine a bot that creates indexable PDFs of all documents related to a case — a potential game-changer for use in litigation and in presenting documents to opposing counsel.

\textit{Id. See Menon, supra note 7 (stating the sooner law firms leverage RPA’s potential the better). “RPA for legal teams has emerged as a boon, helping both the lawyers and their clients.” Id.}

\textit{82 See Automation in Law – what is the status quo?, supra note 47 (explaining that automation in the law still lags behind its potential, while other industries demonstrate impressive advancements through automation).}

\textit{83 See id. (stating that legal automation is possible in all legal areas). “[S]ome areas of law are more suited to automation than others; these areas of law often include the following characteristics: Clearly defined (legal) rules and processes, the complexity of the underlying logic is not too complex, question and problems that routinely and often recur and low level of fact-finding.” Id.}
robotics to assist in performing the process of data collection and the mundane tasks involved in case compilation necessary to a legal process.\(^{84}\) From a technical perspective, legal automation software generates outputs such as documents, emails, or data sets, from an input layer.\(^{85}\) Specifically, automation aids law firms in compiling larger data with more efficiency and greater accuracy than humans can attain.\(^{86}\) Lawyers, law firms and in-house departments are currently utilizing legal automation application to refine the most common problems within the industry: reducing risk and improving productivity.\(^{87}\) In utilizing legal automation, law firms can simplify cumbersome tasks, which traditionally would be handled by paralegals or support staff members such as filing, recording, searching databases.\(^{88}\) Risk assessment, compliance checks, client intake and communications, billing, and accounts payables are just a few examples of the many applications of legal automation that legal teams

---

\(^{84}\) See Arup Das, *There’s a Bot for That*, L. PRAC. TODAY (Dec. 14, 2018), archived at https://perma.cc/3GE4-4UCE (explaining that RPA “bots” use technology to permit computer software to perform routine tasks through human-created processes). “The bots capture and interpret data, manipulate it, use it to perform a task, and convey the results to other digital systems.” *Id.*

\(^{85}\) See *Automation in Law – what is the status quo?*, supra note 47 (stating that legal automation software enables professionals in the legal field to build, model, and execute, decision- and process-based logic).

\(^{86}\) See *How Legal Automation Helps Lawyers*, supra note 46 (noting that professionals tend to struggle to stay up to date on new technological advancements because of frequent evolution).

\(^{87}\) See Manish Malpani, *RPA comes to the legal industry*, INFO BEANS (Sept. 29, 2029), archived at https://perma.cc/TEX8-LNSM (noting the potential for RPA in legal departments because 63% of in-house legal work is repeatable). “By taking over fact-based decisions that need no human judgment or interpretation, RPA frees up legal advisors to spend time with clients – creating more billable hours and enabling law firms to become more competitive.” *Id.* See Ben Stoneham, *Overcoming the fear factor in legaltech*, 169 NEW L. J. 20, 20 (2019) (addressing RPA as a “legaltech solution” that is already being embraced by some of the larger firms). RPA is already delivering tangible results when it comes to practice management efficiencies in legal practices. *Id.* “RPA’s use within legal practices currently tends to involve streamlining or lifting some of the burden of processes which would traditionally have been outsourced, such as high volume work with clearly defined processes.” *Id.*

\(^{88}\) See Menon, supra note 7 (stating RPA applications enhance the role of a paralegal by fulfilling tasks like creating spreadsheets and scanning documents or websites). Automation technologies provide lawyers and other supporting staff members with additional time to focus on the client’s needs and perform other strategic actions. *Id.*
utilize. Automation is often used as a tool that leverages business developments for law firms with online outreach that can build connections and analyze a desired target audience.

Growing legal practices have implemented legal automation technologies with the goal of expanding client development efforts without adding non-billable time to a lawyer’s day. For example, a

---

89 See id. (addressing risk assessment as one of the many applications of automation that a legal team should utilize).

Automation [processes] can calculate case-to-cost data, find a client’s credit rating, search accounts payable, categorize them in risk registers and work out the opportunity cost of taking on a certain client. RPA can also use anti-money laundering (AML) and Counter-Terrorist Financing (CTF) risk assessment forms and find the client’s details including their locations, services, and relationships and integrate the information into documents. Building a complete profile will save huge chunks of time and resources that an employee would use.

Id. See Compliance Considerations for Robotic Process Automation, RECIPROCITY (Apr. 19, 2021), archived at https://perma.cc/GAP8-ZMJS (confirming that RPA can increase the velocity and efficiency of your compliance program by reducing legal issues, improving employee and customer retention, and enhancing business operations).

90 See Which tasks should your law firm automate first?, AMICUS ATT’Y (Nov. 21, 2021), archived at https://perma.cc/QA3V-W6VQ (describing how marketing automation in law firms can assist in relationship-building and outreach in legal practices). “[T]hese important but not urgent tasks get set aside in favor of the high value work and daily emergencies that pop up.” Id. See Menon, supra note 7 (noting that RPA can simplify compliance check within legal firms). “[RPA] can do due diligence, and create suspicious activity reports to fish out potential risks. RPA can search and fill in the information and browse through to find dubious activities by clients.” Id.

91 See Which tasks should your law firm automate first?, supra note 90 (listing common marketing automation applications including social media scheduling, company newsletters, and scheduled interpersonal emails to be sent at a particular day and time). See Fred Cohen, Clients Are Spending More on Legal Tech: Can Smaller Firms Keep Up?, ATT’Y WORK (Jan. 30, 2022), archived at https://perma.cc/L8B3-YMWY (responding to client demands, legal teams are investing more in automation that will help with the workload).

The legal industry faces challenges in an increasingly regulated business environment, a growing demand for services and mounting pressure for tailored client services. But the exciting thing about this time in our industry is that technology, when properly leveraged, turns challenges into opportunities. From a technology standpoint, 2022 is looking very promising for law firms.

Id.
recent case study by Automation Anywhere focused on Husch Blackwell’s, a large U.S. law firm, implementation of RPA technology that is specific to the firms’ practice needs. The first RPA application implemented by Husch Blackwell automated the firm’s conflict check process by digitizing clients and cases while cross-checking to decide if there was a conflict of interest. The second RPA application automated all risk assessments on potential litigation by scanning emails and extracting data automatically. By implementing these initial applications, the firm automated one hundred percent of all email alerts of potential new clients and produced a savings of 800 annual hours, which supports the stated trend of maximizing a firm’s business operations through RPA.

1. Automation & COVID-19

Notwithstanding the pushback against automation by law firms, COVID-19 pressed the legal profession to embrace various forms of technology including video conferences, remote hearings, electronic signatures and automation technologies. Forced closure

---

92 See Husch Blackwell Paving the Way for RPA in the Law Industry, AUTOMATION ANYWHERE (Jan. 2020), archived at https://perma.cc/HM3D-CWB9 [hereinafter Case Study: Husch Blackwell] (citing the case study as just the beginning of automation uses for Husch Blackwell). “The firm has 13 ideas in the automation pipeline, and its RPA team meets regularly to discuss which ideas have merit and the highest return on investment.” Id.

93 See id. (citing the case study in which Hush Blackwell began to implement automation). “100% automated email alerts of potential clients, 800 hours saved annually.” Id.

94 See id. (noting that “[i]nstead of focusing on easier processes, such as automating accounting invoices, which is often implemented first by other companies, the firm specifically tailored its automation program to fit within the legal environment.”). “This [solution] was something that had not been done before by any other firm.” Id.

95 See Case Study: Husch Blackwell, supra note 92 (reporting the findings of the case study and benefits of RPA within the firm).

96 See Hayden Field, How lawyers embraced the robots, EMERGING TECH BREW (July 14, 2021), archived at https://perma.cc/BJA7-YZTD (quoting Chris Audet, “[I]n the past, automation, AI, advanced analytics were voyeuristic. That was their attitude toward it: ‘I’m kind of curious about it, I want to see how other teams maybe use it and I can evaluate it . . . [t]hat’s not the case anymore.’”). See Victoria Hudgins, The Pandemic Has Turbocharged Legal Automation —With Room to Spare, LEGALTECH NEWS (Apr. 2, 2021), archived at https://perma.cc/9T2N-6YXL
of offices and the new way of working from home emphasized the need to implement legal process automation.\textsuperscript{97} As legal teams lost staff, either through business contractions or attrition, firms became to notice the need for top technology investments such as automated solutions.\textsuperscript{98} This leap forward in tech proficiency, and other industries’ widespread adoption of automation, has made legal teams move from a passive to an active stance regarding automation tools.\textsuperscript{99}

(emphasizing that even after a year into a remote transition, firms still haven’t defined all workflows that may benefit from tech-enabled efficiencies). See Gillian Scott, \textit{What is Legal Automation? How law firms use AI to increase efficiency and add value for clients}, LEXPERT (Nov. 1, 2021), archived at https://perma.cc/BNX6-MASV (providing insights on navigating the use of legal automation services during and post COVID).

COVID created a circumstance where firms and businesses had to adopt legal automation, but without the heavy lifting of change management and consensus around adoption. Necessity drove adaptation. Hopefully that experience, even though trial by fire, has shown law firms and legal departments that forward movement around technology can only benefit their businesses, and will perhaps allow them to embrace a less conservative attitude.

\textit{Id.}

\textsuperscript{97} See \textit{The COVID crisis catalyses legal tech adoption among law firms}, WOLTERS KLUWER (Nov. 16, 2020), archived at https://perma.cc/SD8Q-2MBV (describing the findings from the survey report \textit{Impact of the COVID Crisis on the Legal Sector}). “The COVID crisis has had a major impact on the way legal professionals in law firms work with their colleagues, clients and in the courtroom.” \textit{Id.}


“Everyone was waiting for the first mover to make a move, and no one was—and now, we’re in a place where everyone is playing a bit of catch-up,” says Audet. “Covid kind of hit the reset button for folks, and what was [merely] of interest before now is actually seen as a core way, and a smart way, to get work done. So they’re asking questions like: ‘Help me build the business case for this?’ ‘Show me what ROI looks like?’ ‘Where has this been done successfully across workflows?’”

\textit{Id.}

\textsuperscript{99} See \textit{The COVID crisis catalyses legal tech adoption among law firms}, supra note 97 (citing the top technologies law firms said they are looking to invest in are e-signature at 63\%, e-meeting and e-voting management at 46\%, document and contract workflow management at 40\%, workflow management and process automation at 34\%, analysis of regulatory and case law trends to predict results of claims at 32\%).
B. Debunking the Fear of Legal Automation

People generally hold positive attitudes about technology innovation, although some worry about financial barriers and the impact on jobs and what automation will mean for future skill requirements. Additionally, despite the suitability of automation in the legal industry, there is a push-back from lawyers and law firm alike in implementing these technologies into day-to-day operations. Fear that automation will take jobs from the legal sector and make the lawyer obsolete is still one of the heaviest concerns in the development. An important distinction is that these technology

100 See Sanjoli Jain, Prominent Barriers in Legal Tech Adoption and How to Overcome Them, CRMJETTY (July 19, 2021), archived at https://perma.cc/Z4DA-JNJ6 (stating lack of funding in law firms is a barrier in adopting these new technologies); but see Singh, supra note 12 (explaining “it has been found that 30% of the organizations are overlooking the impact of technology on law industry because of financial issues.”). See also Michelle Lee & Michael Engel, Bots help restore work/life balance: Boston Scientific boosts efficiency and job satisfaction with robotic process automation, PWC (Jan. 30, 2022), archived at https://perma.cc/L58A-PSL7 (citing that PwC worked with Boston Scientific to automate some aspects of its tax operations). Analyzing a number of common transactions and data-entry processes, PwC was able to automate several different activities. Id. Ultimately, PwC claims this process reduced overtime, boosted productivity, and saved around 3,900 person-hours each year. Id. The result was higher employee and customer satisfaction, according to the firm. Id.

101 See Michael Cross, Automation to take 67,000 legal jobs, Society predicts, L. SOC’Y GAZETTE (Nov. 2, 2017), archived at https://perma.cc/A5BN-JESZ (following a 2017 prediction that some 67,000 legal jobs could be lost within a generation, significant concerns arose around the growing impact of automation on the legal profession). See also Weiss, supra note 52 (reporting that “[l]awyer employment would drop slightly more than 13 percent if automation is applied to law practice.”). But see Jordan Furlong, The intangible law firm, LAW TWENTY-ONE (July 11, 2016), archived at https://perma.cc/LQQ3-SUH9 [hereinafter Furlong, The intangible law firm] (recognizing artificial intelligence as a valuable tool for law firms). “The role of these process and technology assets is not to replace lawyers — most of these resources require lawyers to program or monitor them on an ongoing basis — but to reduce lawyers’ indispensability to the firm.” Id. See Remus & Levy, supra note 40 (stating the results of study).

102 See Farhad Manjoo, Will Robots Steal Your Job?, SLATE (Sept. 29, 2011), archived at https://perma.cc/HMR4-5LLG (stating that while legal automation will be a boon for those who can't afford representation, it's bad news for lawyers). See Pery & Simon, supra note 55 (reporting on the ongoing discussion at legal
applications do not automate people, but processes. \(^{103}\) Applications of legal automation will not replace lawyers, because legal innovators must initiate the design and control of automation within a firm. \(^{104}\)

Legal automation applications are programmed and supervised by humans to mimic specified rule-based tasks. \(^{105}\) RPA applications are built as a technological tool to assist lawyers within their role, not replace. \(^{106}\) Automation technologies provide lawyers with the opportunity to delegate repetitive tasks and maximize their potential

---

\(^{103}\) See Stoneham, supra note 87, at 20 (noting concerns of RPA are addressed as more tech is deployed to assist and ease the legal profession).

\(^{104}\) See Ivan Rasic, Robotic Process Automation in legal - a bright future, CLOUTLEGAL (July 4, 2020), archived at https://perma.cc/TB5E-NVQ6 (clarifying that AI technologies require human efforts such as setup, direction, and supervision). These technology tools are most effective when they assist lawyers in making a judgment. *Id.* “Lawyers remain in the driving seat.” *Id.*

\(^{105}\) See Michelle Wong, A Beginner’s Guide to Law Office Automation, CLIO (Jan. 30, 2022), archived at https://perma.cc/T43A-ET5S (stating automation will not replace lawyers). “With law office automation and technology, you’re not taking away the human element of the practice. Instead, you’ll spend less time on time-intensive, tedious tasks and more time on activities that require your skills and expertise.” *Id.* See also Max Cole, WHY IT’S TIME TO CHALLENGE MISCONCEPTIONS OF AUTOMATION, L. TECH. TODAY (Oct. 28, 2020), archived at https://perma.cc/8E29-ZG6Z (describing the “role of an attorney as unique” because no day or case is the same). “Attorneys are required to think quickly and logically, be able to cite precedent, yet think of new and innovative ways to interpret the law to benefit clients.” *Id.* “It is a job that requires a unique skill set and the human touch.” *Id.*

\(^{106}\) See Heidi Alexander, The Advantages of Automation, ABAJOURNAL (Jan. 1, 2020), archived at https://perma.cc/TJ27-782G (stating that automation does not take the human element out of practices, but allows an attorney to spend less time on menial tasks and more time on things that require our skills and expertise).

\(^{106}\) See Pola Zafra-Davis, 6 Ways Robotic Process Automation can Help Law Firms Meet the Challenges of Fixed Recoverable Costs, QUADIENT (July 23, 2021), archived at https://perma.cc/9JP5-HGP2 (detailing examples of where RPA fits into today’s legal industry including RPA’s use in assessing the financial risk of a law firm, RPA and client risk, RPA ensuring legal compliance, RPA coordinating information between fee earner and client, RPA’s role in reducing fee overruns, and RPA for accurately tracking and auditing a civil case’s running costs). See also Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (explaining how RPA allows highly skilled legal professionals to focus “mastering the law and providing clients the best legal advice possible”).
within law firms.\textsuperscript{107} Jordan Furlong, a leading analyst of the global legal market and forecaster of its future development, describes firms that will be best positioned in the new legal market as ones that are consistent, reliable, and ones that clients can confidently count on.\textsuperscript{108} Furthermore, Furlong advises attorneys and future attorneys not to be afraid of automation technologies taking away the jobs of lawyers, and he instead, asks lawyers to think about how automation can be used to help the legal profession and how it can be used for the benefit of clients.\textsuperscript{109}

C. Government Use & Regulation of Automation Technologies

Although private sectors have taken the lead in implementing automation, governments around the world are under pressure to

\textsuperscript{107} See How Robotic Process Automation Empowers Today’s Legal Teams, supra note 54 (summarizing RPA technologies as a support role for the legal team of the future and improving the legal department by allowing lawyers to focus on critical and creative thinking tasks). “RPA as a solution allows legal teams to increase productivity without hiring additional human employees or dismantling their tried-and-true processes.” Id. See Tashea, supra note 52 (stating that the future of the legal industries is a “marriage between technology and humans, which . . . is more powerful than either group alone.”).

\textsuperscript{108} See Furlong, The intangible law firm, supra note 101 (recognizing new technologies as a valuable tool for law firms). There is a competitive legal market, and the legal profession can be more efficient while continuing to manage service to clients. Id. See Doc Auto Database of 250 Companies Launches to Help Lawyers Choose, supra note 4 (explaining automation providers understand that the technology must be personalized to the lawyers need).

\textsuperscript{109} See Jordan Furlong, Getting Over Technology, L. TWENTY-ONE (Mar. 15, 2017), archived at https://perma.cc/XB44-R9WV [hereinafter Furlong, Getting Over Technology] (warning that it will not take lawyers as long as they think to get used to using automation technologies in every day practice). Automation technologies should be viewed as a benefit to the legal profession and should not be feared or looked down upon. Id. See Michael Simon et al., supra note 14, at 236 (quoting “[t]echnological innovation has accelerated at an exponential pace in the last few decades, ushering in an era of unprecedented advancements in algorithms and artificial intelligence technologies . . . [T]o survive the rise of technology in the legal field, lawyers will need to adapt to a new ‘practice of law.’”). See Shawn Kastle, Why law firms need automation to adapt to a challenging legal market, WOLTERS KLUWER (May 5, 2020), archived at https://perma.cc/7DXP-BU48 (explaining that technology going beyond changing the legal industry by transforming practice law means today).
operate more efficiently. Process automation and technologies based on artificial intelligence provides benefits across numerous functions of government, including much lower operating costs, more efficient processes, and less wastage and errors. The United States General Services Administration (GSA) is an example of a federal agency which promotes efficient government operations through various initiatives including technology. GSA is currently utilizing automation technologies, like RPA to increase efficiency and remove the low-valued administrative tasks from their operations to transform federal purchases. In 2020 the GSA implemented its initial RPA technology, but as of 2022 the GSA has additional RPA technologies in development. Beyond the GSA, automation technologies like RPA are being recognized by the federal government as a powerful

110 See Alejandro Oses, How Automation Can Help Governments Improve Services Offered To Citizens, FORBES (July 1, 2021), archived at https://perma.cc/X2VG-WJHX (explaining government institutions are still searching to improve services to the public to align with the private sector). See Darrell M. West, How robotic process and intelligent automation are altering government performance, BROOKINGS (Nov. 16, 2021), archived at https://perma.cc/TS47-TVGC (analyzing the opportunities for RPA and IA in the federal government).

111 See Jens Riis Anderson et al., How governments can harness the power of automation at scale, McKinsey & CO. (Feb. 1, 2019), archived at https://perma.cc/V8ZC-JUHX (explaining how automation technology could maximize governmental entities efficiency in daily operations).


[GSA] lead[s] the way in sustainable building design, construction, retrofit, and sustainable operations and maintenance. We are building a 21st century government that procures and manages technology solutions in smart, secure, and affordable ways. We support reductions in Federal Government real estate costs and increases in workplace efficiencies by strategically integrating space, people, and technology solutions customized to different workplace needs.

Id.


tool which allows the workforce to focus on decision making that will benefit federal employees and citizens.\textsuperscript{115}

The United States does not currently have any finite laws regarding the regulation or rights of automation, including AI technologies, but other countries have regulations in place.\textsuperscript{116} The European Union’s (EU) General Data Protection Regulation (GDPR) contains provisions that regulate automated decision-making and profiling without human involvement.\textsuperscript{117} Profiling is an automated processing of personal data to evaluate certain things about an individual, which may form part of an automated decision-making process.\textsuperscript{118} In the United States, regulations on automation technologies are spread out across organizations, but these arrangements do not provide full coverage of the rapidly growing technology.\textsuperscript{119}

Overall, there are opportunities for RPA and IA in the federal government, a number of agencies have already moved to utilize new RPA applications, and agencies report positive gains from these

\textsuperscript{115} See Gabrielle Perret, \textit{Assessing the State of Federal Robotic Process Automation (RPA)}, \textsc{Digital.gov} (Jan. 26, 2022), archived at https://perma.cc/22VP-VNDG (stating how federal agencies can use RPA to focus on decision making and support not only federal employees but citizens). See West, \textit{supra} note 110 (stating that there are benefits to automation technologies in federal government). “A number of agencies have already moved to utilize new [automation] applications, and they report positive gains from these deployments.” Id.

\textsuperscript{116} See Kelsey R. Marquart, \textit{If We Don’t Regulate Automation, It Could Decimate the U.S. Economy}, \textsc{Futurism} (Apr. 14, 2017), archived at https://perma.cc/WDA4-3KH4 (stating “several politicians and leaders in technology law are calling for the United States to create a department that concentrates on [automation technologies].”).

\textsuperscript{117} See Council Directive 2016/679, art. 22 of May 24, 2016, General Data Protection Regulation, 2016 O.J. (L 119) 71, 72 (detailing Article 22 objectives to protect individuals where automated decision-making has legal or similar significant effect).

[W]here such decision-making occurs, the Member State must ensure that individuals are given information about the processing of automated decision-making simple mechanisms are introduced for individuals to request human intervention or challenge a decision, and regular checks are carried out to make sure that ADS systems are working as intended.

\textsuperscript{118} See \textit{id.} at 71 (defining profiling as any form of automated processing of personal data consisting of the use of personal data to evaluate certain aspects relating to a natural person).

\textsuperscript{119} See Marquart, \textit{supra} note 116 (stating that “[t]he Federal Aviation Administration, Securities and Exchange Commission, and the National Highway Traffic Safety Administration have some of the responsibility when it comes to robotics regulations.”).
deployments. Automation demonstrates a way for government agencies to increase productivity, streamline administrative processing, and reduce data error rates. The adoption and deployment of automation provides benefits for agency operations as long as they do not introduce biases, lack transparency, or fail to maintain federal privacy and security practices.

IV. Analysis

A. A World Suited for Automation

In the legal industry, the most promising legal technology trend is automation. Legal automation decreases overhead and increases profits within a law firm, and automation reduces the cost of legal services, making it more accessible for the many individuals who can’t

---

120 See Lee & Engel, supra note 100 (citing that PwC worked with Boston Scientific to automate some aspects of its tax and finance operations). Analyzing a number of common transactions and data-entry processes, it was able to automate several different activities. *Id.* Ultimately, PwC claims this process reduced overtime, boosted productivity, and saved around 3,900 person-hours each year. *Id.* The result was higher employee and customer satisfaction, according to the firm. *Id.*

121 See West, supra note 110 (showing how robotic process and intelligent automation are altering government performance). “They report positive gains from these deployments. Each represents a way to improve worker productivity and streamline administrative processing. There is evidence that these applications save worker time and reduce data error rates.” *Id.*

122 See Robotic Process Automation to Transform Legal Sector, supra note 104, at 24 (explaining the benefits of RPA in the legal public sector). One example is “[r]egulatory robots - which compile regulatory changes, as well as automating the monitoring and updating of changes within the European Union (EU Parliament, European Commission) and the United States legal and regulatory requirements databases.” *Id.*

123 See Unlock the Key to Automation to Reduce Lawyer Burnout, supra note 1 (providing an explanation of the various subsets of automation which support a lawyer’s role). See Why Legal Workflow Automation is Important to Law Firm Success?, supra note 10 (describing the significant of an investment in automation and the benefits of automation within the legal industry). “Legal automation is designed to streamline the law practice operations smoothly. Automating document management to gaining more clients, everything can be achieved with legal automation.” *Id.* See Synytska, supra note 14 (including automation in the forecast for new technology trends in 2021 and 2022). See Makinson, supra note 15 (noting workflow automation as one of the leading technological trends in 2022 for the legal industry).
afford a lawyer. Legal organizations cannot compete with new-age legal service providers if they ignore new legal technologies. The purpose of the RPA software robots is to enhance the existing human workforce. While human managers are responsible for the actions of the RPA software robots, the learning and development needs of an RPA software robot is no less than that of a human employee. Across various industries, businesses are increasingly utilizing RPA technologies to streamline operations, reduce cost, and increase revenue, but automation is especially suitable for the legal industry. Modern legal departments operate with business-driven objectives by recognizing the need to work diligently while minimizing costs to the firm and to respective clients. While traditional automation is well-established in other business sectors, the adoption of legal automation is still in the beginning stages for lawyers. The delay in adoption

---

124 See Unlock the Key to Automation to Reduce Lawyer Burnout, supra note 1 (noting that automation technologies can reduce stress and increase productivity for lawyers).
125 See Why attorneys need to keep up with legal tech advances, supra note 13 (providing that tech needs to be an integral part of a law firm’s practice). “If you and your firm aren’t looking for ways to leverage the latest legal technology, chances are good you’re falling behind your competition.” Id. “The future is here…[l]aw firms that want to steer their own future can’t let it pass them by.” Id.
126 See Robotic Process Automation (RPA), supra note 5 (defining RPA as a software technology that makes it easy to build, deploy, and manage software robots that emulate humans’ actions interacting with digital systems and software). See The Long Tail of Robotic Process Automation, supra note 9 (emphasizing the trend towards automation to enhance the human workforce).
127 See Doc Auto Database of 250 Companies Launches to Help Lawyers Choose, supra note 4 (explaining that automation is personalized for each law firm). See Why Legal Workflow Automation is Important to Law Firm Success?, supra note 10 (stating the investment in legal technologies like automation is more beneficial than firm real estate).
128 See Parikh, supra note 9 (showing the application of RPA across industries such as banks and finance, insurance, healthcare, manufacturing and life sciences). See Bhutta, supra note 9 (explaining how law firms have barely scratched the surface in utilizing RPA technologies).
129 See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (quoting Roberto Facundus, “Especially for in-house counsel, anything that saves time is welcome . . . [a]ny legal tech that saves an attorney time through increased efficiency is inherently valuable.”).
130 See Singh supra note 12 (noting the challenges which delay the use of legal technologies includes a lack of understanding, organizational issues, and financial barriers). “36% of lawyers are unaware of the set of technology used in law firms
of automation in the legal industry is because of challenges such as lack of funding, lack of understanding, and business organization.  

In 2020, COVID-19 triggered an inflection point for the legal industry’s adaptation and adoption to technology. As the shutdowns began, businesses across industries scrambled to find solutions to remain open all while working remote from homes around the world. Legal teams lost staff, either through business cutbacks or layoffs, and to help offset those losses, some allocated remaining budgets for automation solutions. In turn, legal professionals have been motivated to automate more of the workflow due to significant

for better purposes.” Id. “[O]ver 34% of organizations do not look ahead to enter the LegalTech market because of organizational problems.” Id. “It has been found that 30% of the organizations are overlooking the impact of technology on law industry because of financial issues.” Id. See Siryi, supra note 51 (stating that the “the legal industry still lags behind as many law firms fail to adopt efficient digital transformation strategies.”).

See Why attorneys need to keep up with legal tech advances, supra note 13 (noting “[t]he practice of law has always relied on precedents and traditions.”).

Attorneys have a history of adopting new technologies that help them move more quickly and avoid getting bogged down by tedious tasks. Computerized legal research came on the market in the 1970s, and law firms embraced it. When that capability was made accessible to PCs in the early 1980s, the legal tech boom was off and running.

Id. See also Juro Knowledge Team, supra note 40 (“[e]xploring how automation has impacted the legal industry, in various different settings.”).

132 See Field, supra note 96 (explaining that after long resistance to automation, 2020 was an inflection point for the industry’s adoption of legal tech).

“Everyone was waiting for the first mover to make a move, and no one was—and now, we’re in a place where everyone is playing a bit of catch-up,” says Audet. “Covid kind of hit the reset button for folks, and what was [merely] of interest before now is actually seen as a core way, and a smart way, to get work done.”

Id.

133 See Hudgins, supra note 96 (explaining that firms’ move toward more automation was also spurred by the stresses of remote work). “People are working harder, they don’t have the natural break in the day, and I think that has brought more focus to the work and caused people to rethink about how they got their work done.” Id.

134 See id. (noting “[t]he remote environment has allowed firms to better identify inefficiencies in their workflows, which in turn has fueled plans for more automation. But despite a yearlong exodus from the office, all of the operational and service delivery processes that could benefit from automation haven’t yet been identified.”).

See Field, supra note 96 (stating that “2020 was an inflection point where legal teams lost staff, either through business contractions or attrition, and to help offset those losses, some earmarked leftover budget dollars for automation solutions.”).
cuts and operational decisions during the pandemic that has continued to leave staff members out of the office. 135 The COVID-19 crisis created a unique circumstance where law firms and businesses adopted automation solutions without the heavy lifting of change management and consensus around adoption. 136 Necessity drove adaptation and has created long lasting impacts on the legal industry relationship and usage of automation. 137

B. Why Automation is Better for the Legal Industry

“Legal robots” are the perfect technological associate for lawyers, legal departments and law firms because they can handle repetitive and tedious operational tasks. 138 The main advantage of

135 See Scott, supra note 96 (providing insights on navigating the use of legal automation services during COVID-19 epidemic). COVID created a circumstance where firms and businesses had to adopt legal automation, but without the heavy lifting of change management and consensus around adoption. Necessity drove adaptation. Hopefully that experience, even though trial by fire, has shown law firms and legal departments that forward movement around technology can only benefit their businesses, and will perhaps allow them to embrace a less conservative attitude. Id. See Law Firm Automation Will Survive the Pandemic, supra note 98 (noting the law firms who implemented automation technologies in 2020 will move ahead in this post-pandemic era).

136 See The COVID crisis catalyses legal tech adoption among law firms, supra note 97 (describing the findings from the survey report “Impact of the COVID Crisis on the Legal Sector”). The COVID crisis has had a major impact on the way legal professionals in law firms work with their colleagues, clients and in the courtroom. Id. See Scott, supra note 96 (acknowledging that COVID required many law firms and legal departments to rely on or adopt certain legal automation into their practices).

137 See Scott, supra note 96 (quoting Gillon Scott, “[h]opefully that experience, even though trial by fire, has shown law firms and legal departments that forward movement around technology can only benefit their businesses, and will perhaps allow them to embrace a less conservative attitude.”). See Why attorneys need to keep up with legal tech advances, supra note 13 (noting “[s]uccessful law firms know that up-to-date, best-in-class technology isn’t a nice-to-have option. It is a requirement of doing – and staying – in business.”).

138 See Robotic Process Automation to Transform Legal Sector, supra note 104 (noting that RPA is an ally to lawyers “given that 63% of in-house legal work is repeatable, fact-based decisions that involve no need for human judgment or interpretation.”).
using legal process automation is that automation provides for more time and resources available to other tasks and client communications, completing large case files more quickly, and increasing profitability of lawyers and firms. Streamlining processes is extremely important in law firms because automating means lawyers can dedicate more time to high value, high risk work and less time on routine work. Beyond being able to streamline the process of writing up complex legal documents, document automation also enables firms to reduce their reliance on billable hours, and with legal automation lawyers can boost firm profitability and reduce cost to clients.

Legal automation is possible in all legal areas; however, the goal is not to automate one hundred percent of a legal tasks. Rather, the goal of legal automation is to achieve efficiency gains wherever possible within the legal industry. Legal automation software like RPA, enables professionals in the legal field to build, model, and

---

139 See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (RPA as a solution for modern legal departments challenges by providing relief from a number of mundane, repetitive legal and compliance tasks). RPA improves operational efficiency so that legal professionals can focus on higher-value legal and compliance matters. Id. See Tupek, supra note 11 (noting examples of automation in the legal industry). “Automation in the legal industry examples are: Contracts can be electronically signed. Routine legal agreements are digitally drafted using templates. Artificial Intelligence (AI) is used to capture data from PDF and Word documents. Billing is automatically processed, [and] [c]ontract time frames are automatically managed.” Id. See Menon, supra note 7 (defining RPA as a technology that “can considerably increase the efficiency of any business by reducing or even eliminating redundant and repetitive tasks.”).  
140 See How Robotic Process Automation Empowers Today’s Legal Teams, supra note 54 (acknowledging that “[t]he main advantage of RPA is the reduction in time and costs, especially when considering that the most common method of charging used by law firms is by the hour.”). “Software robots can complete tasks up to five times faster than human workers.” Id.  
141 See Wong, supra note 104 (expanding on the benefits of document automation). “With law office automation and technology, you’re not taking away the human element of the practice. Instead, you’ll spend less time on time-intensive, tedious tasks and more time on activities that require your skills and expertise.” Id.  
142 See Automation in Law — what is the status quo?, supra note 47 (explaining that “[a]utomation in the law still lags behind its potential, while other industries demonstrate impressive advancements through automation.”).  
143 See id. (stating that legal automation is possible in all legal areas). “[S]ome areas of law are more suited to automation than others; these areas of law often include the following characteristics: Clearly defined (legal) rules and processes[,] [t]he complexity of the underlying logic is not too complex[,] [q]uestion and problems that routinely and often recur and [l]ow level of fact-finding.” Id.
execute, decision- and process-based logic. Legal automation is applied differently depending on the size of the law firm and needs of the lawyers. For lawyers in law firms, it might mean automating the document review process required for due diligence, to avoid associates having to manually search through emails. However, in house lawyers may automate the creation of routine contracts by using an automated workflow with contract templates. Overall, as the legal sector evolves, the utilization of automation in the legal profession will increase throughout the industry.

C. Time to Challenge the Misconceptions of Automation

Despite the suitability and need for automation technologies in the legal industry, there is a pushback from lawyers and law firms alike in implementing automation technologies into day-to-day operations. Anything with the word “robot” in the name still has the tendency to evoke fear of a job takeover, but these automation technologies are

---

144 See How Robotic Process Automation (RPA) Works with Lawyers, supra note 31 (acknowledging that in-house legal departments and firms have a lot to gain from simplifying and streamlining their processes through technology because legal professionals are struggling to keep up with the rapidly growing workload.). In recent years, legal departments and law firms face more demand than ever but utilizing RPA can address the issues from excessive caseloads to ever-evolving legislation, compliance and regulations. Id.

145 See Dodd, supra note 57 (reporting on “how technology can drive return on investment (ROI) for in-house legal teams.”). See Bhutta, supra note 9 (stating that law firms should identify which processes to automated and identify a person or group to maintain these projects).

146 See Juro Knowledge Team, supra note 40 (comparing the impact of legal automation in different settings such as law firms or in-house counsel).

147 See id. (comparing the impact of legal automation in different settings such as law firms or in-house counsel).

148 See Scott, supra note 96 (acknowledging that balancing the cost of legal services and the value of legal services will increase the use of automation in the legal industry).

149 See Singh, supra note 12 (explaining that lack of understanding, organizational issues and financial barriers have delayed the implementation of newer technologies in law firms). See Marchant, supra note 12 (explaining the discomfort for many attorneys reading news headlines regarding the alarming prediction of artificial intelligence (AI) replacing lawyers with “[r]obot [l]awyers.”).
not ones to fear. Instead, automation technology is freeing people up from repetitive tasks, which allows professionals to focus on higher-value tasks that may require additional time and effort to execute.

Fear that automation will take jobs from the legal sector and make the role of a lawyer obsolete is still a major concern for many lawyers. An important distinction is that legal automation software applications, such as RPA, does not automate people, but processes. The role of a lawyer is unique because it is a job that requires a skill set and the human touch. To benefit clients, lawyers are required to think quickly, logically and of new and innovative ways to interpret the law. Therefore, the idea that even part of the role of a lawyer, or other legal professionals, can be automated seems inconceivable, but when lawyers think about their work in process terms, they are often able to identify the repetitive and predictable aspects of their

---

150 See Sheikh, supra note 18 (stating RPA has nothing to do with “physical or mechanical robot[s]”). See also How to explain Robotic Process Automation (RPA) in plain English, supra note 18 (quoting Kofax CSO, Chris Huff, “[r]obotic process automation is not a physical [or] mechanical robot.”). “There aren’t really any robots involved in [RPA].” Id. See Kannan, supra note 8 (stating that “RPA has little to do with what we commonly understand as ‘robots’ in the conventional sense of the word.”). “RPA is defined by algorithms that are built to enhance return on investment (ROI), boost execution speed, and improve the quality of business results.” Id.

151 See Creating a More Effective Legal Department through Robotic Process Automation (RPA), supra note 10 (suggesting RPA as a solution for modern legal departments challenges by providing relief from a number of mundane, repetitive legal and compliance tasks).

152 See Manjoo, supra note 102 (stating that while legal automation will be a boon for those who can't afford representation, it's bad news for lawyers). See Pery & Simon, supra note 55 (reporting on the “battle in the legal tech press, at conferences and on social media, over the question, Will robots replace lawyers?”).

153 See Rasic, supra note 103 (clarifying that even deep learning AI needs setup, direction, and supervision to serve its purpose, and “tech tools are most effective when they assist lawyers in making judgment calls.”). “Lawyers remain in the driving seat.” Id.

154 See Wong, supra note 104 (stating automation will not replace lawyers). “With law office automation and technology, you’re not taking away the human element of the practice. Instead, you’ll spend less time on time-intensive, tedious tasks and more time on activities that require your skills and expertise.” Id.

155 See Cole, supra note 104 (explaining that legal professionals should focus their attention to the balance between technological innovation and the human intervention). “Technology alone cannot ever replace the creativity and sheer brainpower of a skilled attorney, nor should it.” Id.
work.\textsuperscript{156} These aspects of the job are the parts that can be automated to save time and increase accuracy and efficiency.\textsuperscript{157} Implementation of legal automation technologies cannot replace lawyers because legal innovators must initiate the design and control of automation within a firm.\textsuperscript{158}

Legal automation can lessen the burden of due diligence by looking for information in records.\textsuperscript{159} Additionally, automation processes can assist in other legal operations like registering trademarks, reviewing disputes, digitizing client records, automating accounts payable.\textsuperscript{160} By taking on these tasks, in place of human workers, legal automation frees up a lawyer’s available time to spend time with clients which in turn, creates more billable hours and enables law firms to become more competitive in the market.\textsuperscript{161}

\textsuperscript{156} See id. (noting automation provides the opportunity to utilize lawyers for the skills they are trained and hired for). “[These technologies enable] the human side of law to be celebrated by automating the routine [and admirative tasks].” \textit{Id.} “It boosts productivity, prompting a rethink of existing—and sometimes inefficient—processes.” \textit{Id.}

\textsuperscript{157} See Wong, supra note 104 (listing the five most common ways law offices utilize automation include client intake, document automation, client communications, law firm collection automation, and client reviews).

\textsuperscript{158} See id. (stating that automation in the legal profession will not replace lawyers). Robotic process automation takes over the mundane tasks, while still allowing for a level of human supervision in the implementation of these technologies. \textit{Id.}

\textsuperscript{159} See Menon, supra note 7 (noting that software “robots can lessen the burden of due diligence by looking for information in records; an employee will take hours whereas the bot can finish searching for information within minutes, saving a huge chunk of time.”).

\textsuperscript{160} See id. (defining RPA as “a technology that has the capacity to considerably increase the efficiency of any business by reducing or even eliminating redundant and repetitive tasks.”).

\textsuperscript{161} See Cohen, supra note 91 (explaining that law firms must keep up with the technology that their clients use, and clients are more likely to seek counsel with up-to-date technology). See Tiple, supra note 49 (“[a]dopting an ‘automation first’ mindset, whether in-house or outside council, will undoubtedly transform the way the legal sector works.”). See How Robotic Process Automation Empowers Today’s Legal Teams, supra note 54 (noting that RPA provides the potential for a legal department to reclaim 40\% of their time). See Tupek, supra note 11 (noting examples of automation in the legal industry). “Automation in the legal industry examples are: Contracts can be electronically signed[,] [r]outine legal agreements are digitally drafted using templates[,] Artificial Intelligence (AI) is used to capture data from PDF and Word documents[,] [b]illing is automatically processed[,] [a]nd [c]ontract time frames are automatically managed.” \textit{Id.} See Menon, supra note 7 (defining RPA as “a technology that has the capacity to considerably increase the efficiency of any business by reducing or even eliminating redundant and repetitive tasks.”).
Technology is constantly evolving, making it challenging for professionals to keep up with trends and necessary advancements.\textsuperscript{162} The legal system cannot escape the ongoing development of technology, as lawyers must progress and implement modern solutions to sometimes ancient rules.\textsuperscript{163} In order to meet these challenges, it's vitally important that today's law firms develop maximum value from the implementation of technological efficiencies.\textsuperscript{164} This can be accomplished by focusing on areas where technological solutions are likely to have a significant impact.\textsuperscript{165} Law firms should consider investments in automation and other technological advances in order to remain marketable and viable in today's technologically driven world.\textsuperscript{166}

\textsuperscript{162} See Remus & Levy, supra note 40 (noting that “[t]he internet, email, and legal research databases like Westlaw and Lexis have been impacting and altering legal practice for decades.”). See Juro Knowledge Team, supra note 40 (exploring how automation has impacted the legal industry, in various different settings). “While process automation isn’t new, in the context of a legal profession largely unchanged since the advent of email and word processing, the adoption of automated solutions is still in its infancy for lawyers.” Id.

\textsuperscript{163} See HOW LEGAL AUTOMATION HELPS LAWYERS, supra note 46 (demonstrating that “[t]he legal system is not immune to this issue, as lawyers need to continuously develop and evolve their reasoning and approach to problems to align with modern solutions.”). See What is legal automation and how does it work?, supra note 48 (explaining that “legal automation systems are becoming increasingly popular and beneficial to users.”). “Being late to the adoption of automated Legal services means Legal can not only learn from the experiences of other functions, but it can ‘leap-frog’ outdated technology.” Id.

\textsuperscript{164} See Simon et al., supra note 14, at 236 (quoting “[t]echnological innovation has accelerated at an exponential pace in the last few decades, ushering in an era of unprecedented advancements in algorithms and [AI] technologies . . . [T]o survive the rise of technology in the legal field, lawyers will need to adapt to a new practice of law.”). See Kastle, supra note 109 (explaining that “[t]echnology isn't merely changing the legal industry—it's transforming what it means to practice law in the 21st century.”).

\textsuperscript{165} See Cohen, supra note 91 (explaining that law firms must keep up with the technology that their clients use, and clients are more likely to seek counsel with up-to-date technology).

\textsuperscript{166} See Automation in Law – what is the status quo?, supra note 47 (identifying the importance of starting small by finding the legal tasks that recur most often and then strategically adding layers of automation to these tasks). “By achieving success in legal automation in one area, it will be easier to branch out and being automating in other areas.” Id.
V. Conclusion

Legal automation is one example of a technology that is transforming a lawyer’s traditional role in society. Technology is encouraging change and adaptation within the legal profession. Automation in the legal industry is among the most promising legal technology trends and will keep on growing in the future as well. Legal automation technologies create positive client experiences, better work environments for attorneys, and help achieve business goals in an efficient and time-saving manner. Legal organizations cannot compete with new-age legal service providers if they ignore legal technologies such as automation. Through the use of legal automation, lawyers can create more profitable and effective legal departments. Implementing automation technologies into the legal industry will future-proof a lawyer’s role in society.