

Legal Automation

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ABSTRACT

Automation involves the creation of computer software and automated systems that can complete repeatable processes and reduce the need for human intervention. Over the past decade, automation has dramatically changed how companies do business. Automation is transforming the law profession. Legal automation involves the application of software to automate the manual or routine tasks traditionally performed by legal professionals. Automation simplifies repetitive tasks, freeing up time and resources for more strategic work. Whether it is drafting contracts or generating compliance documents, automation allows teams to work faster and more accurately. In this paper, we will examine how automation is being applied in different legal practice areas.

KEYWORDS: *automation, legal automation, document automation, legal industry*

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INTRODUCTION

By nature, legal work is a mixture of high-level advisory work and routine tasks. Legal work has always been document-heavy, detail-oriented, and time-sensitive, as evident by a pile of documents shown in Figure 1 [1]. Many legal professionals find themselves bogged down by repetitive tasks that could be handled more efficiently with technology. Corporate legal departments are constantly faced with the challenge to do more with less. All areas of legal practice that include repeatable, standardizable work product can be automated. These areas can be automated to levels far beyond the industry's current level of adoption of legal technology for practice management.

Legal automation simplifies time-consuming tasks, giving lawyers more time to focus on higher-value work. The automation of legal work is a win for law firm owners, legal associates, and paralegals as well. Automation enables legal teams to meet unrelenting client demands to do "more for less and faster-better-cheaper" [2]. It brings major changes to the legal sector, affecting more than 60% of daily tasks. Figure 2 shows a representation of automation [3].

WHAT IS LEGAL AUTOMATION?

The legal industry has long been marked by tradition, libraries full of case law, complex contracts scrutinized line by line, and endless administrative work. For years, lawyers have relied on paper to handle their immense workload of correspondence and legal documents. Lawyers spend an enormous amount of time doing paperwork. Routine tasks of lawyers involve redundant, time-consuming, and tedious paperwork. The right combination of skilled employees and automation can save a lot of paperwork. Automation of legal paperwork processing enhances the operations of an organization. Figure 3 shows how lawyers need to do less with paper [2]. Traditional legal processes, from contract management to compliance tracking, often need to be faster and more error-prone. These inefficiencies lead to delayed operations and increase the risk of non-compliance. Legal automation offers a powerful solution.

Legal automation refers to the application of technology to perform tasks traditionally handled by legal professionals. It involves using software that is specifically designed to progress, manage and

complete repeatable tasks/workflows or processes which are necessary for the delivery of legal services. The software enables legal teams to streamline processes like document creation, contract management, compliance tracking, and case management, allowing legal teams to focus on complex decision-making instead of routine administrative work.

Legal automation is best deployed to automate all the low-value, low-risk legal work so that lawyers can focus on the high-value, high-risk work. The best place to begin the implementation of legal technology is with mundane, repetitive tasks that consume time better spent doing more valuable things. The best kind of tasks to automate are ones you do regularly. Focus on finding tasks that take a long time, or things that are done the same way every time. Not everything can or should be automated. Processes need to be predictable for automation to work. Unique documents or anything that requires individual consultation, decision-making, or collaboration are not good candidates for automation. There are some common elements of legal workflows that lend themselves to automation quite naturally. Some examples include [4]:

1. Contract drafting
2. Contract review
3. Document filing
4. Legal research
5. Legal compliance
6. Due diligence
7. IP protection
8. Document retrieval
9. Document creation

TYPES OF LEGAL AUTOMATION

Since lots of legal tasks can be automated, various technologies can be used for legal automation, from AI assistants through to eDiscovery and document management tools. There are plenty of opportunities to automate legal processes, and different tools will enable you to automate different tasks. This leads to the following types of legal automation [5]:

- *AI legal assistants*: AI-powered tools automate research, document review, and basic inquiries, reducing time spent on repetitive tasks. These usually take the form of an AI chatbot, like ChatGPT for lawyers.
- *Contract review and analysis*: AI-driven contract tools speed up review processes, identifying risks and inconsistencies with greater accuracy.
- *Automated workflows*: No-code automation platforms streamline manual tasks, improving processes like inquiry handling and case triage.

- *Risk and compliance management*: Automated tools help track regulatory changes and flag potential compliance risks.
- *Knowledge management*: AI-powered research tools compile and deliver relevant legal knowledge to teams efficiently.
- *Obligation management*: Automated contract renewal reminders and obligation tracking ensure deadlines are met. Functionality like automated contract renewal reminders can be used to automate obligation management work.

By automating these areas, legal professionals can dedicate more time to strategy, client relationships, and higher-value work. Each type of legal automation serves a distinct purpose.

APPLICATIONS OF LEGAL AUTOMATION

Many law firms are now automating document processing due to speed, accuracy, consistency, savings, and customer satisfaction. Automation is fast becoming the only way to keep up with the advancing speed of business. It is not just about doing work faster, it is also about doing it better. Specific applications of legal automation include the following [1,5]:

- *Legal Operations*: Disciplines like legal operations have emerged and are seeing legal departments run like a business and focus on optimizing the delivery of legal services to their business clients. Legal automation is a key pillar of any legal operations. While other legal technology may help lawyers organize and manage their work, legal automation uniquely shifts the type of work of legal departments to enable them to truly do more with less. Figure 4 shows a group of lawyers at work [6].
- *Document Automation*: Drafting documents has fallen further down on the priority list amid growing demands and tightening resources. Law firms are currently pursuing strategies to increase operational efficiency as well as a reduction of operating costs to meet clients' growing expectations. Automation of legal documents is the force that lets law firms optimize their working processes, decrease the rate of mistakes, and maintain the competition. Legal document automation helps firms create, review, and manage documents with minimal manual input. In fact, legal automation tools can help law firms save up to 40% of their time by automating repetitive tasks. This efficiency allows legal teams to focus on high-impact work instead of manually drafting every document from scratch. With automation software, firms can save time

and eliminate the possibility of making mistakes when it comes to preparing contracts, compliance forms, and agreements. Automating the creation of standard documents means less time spent on manual entry so that lawyers can focus on client interactions or case strategy. Legal document automation opens the path to efficiency, accuracy, and greater client satisfaction. Figure 5 represents document automation [7], while Figure 6 presents how it works [8].

- *Contract Automation:* Legal document automation applies to different contracts, and contract generation is one of the most popular automation types. Contracts, specifically smart contracts, are another area with a lot of new investment in automation. Smart contracts use blockchain technology to execute agreements automatically when predefined conditions are met. This reduces the need for intermediaries, ensures contract security, and improves efficiency in contract execution. Reviewing contracts and conducting legal research are some of the most time-consuming aspects of legal work. AI-powered contract review tools scan documents for risks, inconsistencies, and missing clauses. With automation, firms can reduce the risk of oversight and handle cases more efficiently.
- *Workflow Automation:* Legal workflow automation helps law firms automate routine tasks. It streamlines processes like contract approvals, case tracking, and compliance monitoring. Instead of manually tracking progress, automation tools notify relevant team members about pending tasks, reducing bottlenecks and improving overall efficiency. With legal workflow automation, law firms can automate anything from billing to document management while reducing errors and decreasing overhead. Legal workflow automation technology provides limitless opportunities when it comes to helping you save time on key law firm processes, like client intake, document automation, client communications, payment collections, client reviews, and more. It gives your law firm the advantage of servicing clients and attracting new business more efficiently.
- *Compliance Documentation:* Compliance is a critical topic for law firms, and document automation enables organizations to keep up to date with new and changing rules. The firm will only require occasional manual tweaking of the document in a few compliance areas and record keeping.
- *Employment Agreements:* Employment law agreement drafting and implementation demands expediency. An automated system is convenient for issuing employment contracts by applying pre-set templates, introducing uniformity into document issuance, and reducing administrative delay.
- *eSignature:* An eSignature (or electronic signature) is a means by which a person can indicate their agreement with the content of a document or set of data. Like its handwritten counterpart in the offline world, an electronic signature is a legal concept capturing the signatory's intent to be bound by the terms of the signed document. In the age of new technologies, esignatures are among the tools that a legal professional cannot do without. E-signing allows clients and colleagues to sign papers electronically, which is far more effective and safer than paper. Figure 7 shows an example of signature [7].
- *Document Assembly:* One popular automation in legal services is document assembly. By identifying frequently used legal documents, such as fee agreements and contracts, you can set up document templates in the software. Save your templates in the software and select them as needed. Templates can include additional prompts, like entering a fee for billing or setting a calendar appointment with a client.
- *Chatbots:* One significant advancement of AI technology has been the development of chatbots, such as ChatGPT models. These language models have the capacity to understand and generate human-like text responses, which can be helpful for lawyers as they work on various legal tasks. AI models such as ChatGPT and others have been employed to automate and enhance legal processes. Bots can receive and send emails, collect data from forms or scanned documents, log into applications, prepare reports, and much more. They are the perfect solution for organizations in which employees waste time on boring work.
- *Robotic Process Automation:* RPA ensures less risky and consistent work with trustworthy data. It involves the creation of software robots which complete simple tasks in the same way employees would, only much faster. This technology allows a legal team to focus on the difficult problems and human contact with clients, which improves their capacity and the quality of their service. RPA can help in processing data from various documents. For example, a bot can read a scanned contract

and extract the parties' data. A well-constructed RPA solution allows you to use encryption and other technological solutions that ensure security. The zero-touch environment of robotic process automation helps to mitigate human-related risks in legal operations. An automated environment is free from biases, prejudices or variability, all of which mar human work with the risk of error.

- *Legal Research Assistance:* Legal research has historically been one of the most time-consuming tasks for lawyers. AI tools are now streamlining this process by offering real-time, context-aware search capabilities that go beyond mere keyword matching.

BENEFITS

Through legal automation, teams are empowered to create self-serve and self-help tools for their clients. Automation creates a happier workplace through streamlined processes, reduced mistakes and risk, elimination of tedious tasks, improved communication, better teamwork between law firm staff, staff undertaking higher value, and more. The main benefit of legal automation is an increase in productivity and significant time saving. This can have several obvious benefits, depending on what the lawyers in question choose to do with the time they gain back. Other benefits of legal automation include the following [9]:

- *Improved Accuracy:* Automation eliminates human error, so the documents are uniform and always up to code; with high level of accuracy. It is possible to build trust with clients while protecting a firm from potential fallout in a courtroom.
- *Cost Savings:* Cost savings are another big plus, with automation helping to cut down on time and resources spent on administrative tasks. By automating document workflows, law firms reduce overhead costs linked to manual labor and extensive document review processes. The time saved through automation translates into reduced staffing needs for administrative work and a more cost-effective practice.
- *Time Savings:* In the fast-paced legal industry, time is not just money; it is the backbone of efficiency and client satisfaction. Automation also frees up lawyers' time to focus on higher-value work, which can improve client satisfaction as firms can respond more swiftly to client needs. It gives time back to legal teams and help them refocus on high impact tasks by creating automation and self-service journeys for the low complexity tasks. Reducing time on routine tasks

for engagements and strategy would give firms more resources to take an edge in this market. Figure 8 shows the significance of time savings [10].

- *Improved Efficiency:* This process eliminates the need for lawyers to spend valuable time on repetitive tasks such as manually drafting and formatting documents, saving time, and reducing the potential for errors. Automation streamlines repetitive tasks, freeing up time for higher-value work, which improves overall firm efficiency and reduces human error. It enables faster turnaround for business clients and removes bottlenecks to progress deals faster by improving accessibility to services through self-service while shortening the queue for high importance legal requests.
- *Scalability:* Automation allows law firms to handle growth efficiently, scaling operations without the need for proportional increases in staffing. If your business is growing rapidly or expanding into new markets, legal automation can support with scaling by handling increased legal work without a proportional increase in resources.
- *Competitive Advantage:* Adopting automation positions your firm as innovative, attracting clients looking for efficient and modern legal services. Implementing legal automation can give your business a competitive edge by helping you to deliver faster response times, quicker contract negotiations, and improved client satisfaction.
- *Client Satisfaction:* Saving time and money can also help law offices improve services and increase client satisfaction. Using AI to lower the cost of document processing also means firms have the option of passing on the savings and lowering fees in certain cases, which makes legal services accessible to a wider range of people.

Some of these benefits are shown in Figure 9 [8].

CHALLENGES

There are complex workflows, legal logic, and calculations in legal documents that AI alone cannot solve, just as there are things that automation alone cannot solve. As reliance on technology grows, so does the importance of data privacy and security in legal tech. Ethical concerns about bias in AI models, data privacy, and regulatory compliance must be continuously addressed. It is important to remain vigilant about potential bias in AI-generated documents. In the fierce market competition, law firms today must deal with double-sided demands to become more accessible by cost reduction, but also to provide more effective services to clients. Other

challenges of legal automation include the following [5]:

- *Security:* Legal automation platforms must use robust encryption methods to protect sensitive client and case data from unauthorized access. End-to-end encryption ensures that confidential information remains secure both in transit and at rest. With increasing cyber threats looming like dark clouds on the horizon, law firms must prioritize robust security measures. AI plays a pivotal role in enhancing data security protocols within law firms.
- *Regulations:* Automation tools should comply with key data protection regulations such as GDPR, CCPA, and industry-specific legal standards. Firms should ensure that their chosen solutions provide built-in compliance features that align with legal and ethical obligations. With rising regulations around data governance, complete automation software also should include advanced security tools and ensure nothing leaves the company and software/cloud ecosystem.
- *Access Control:* Law firms must implement strict access control measures, ensuring that only authorized personnel can view, edit, or approve automated legal documents. Role-based access and audit trails help maintain accountability and prevent unauthorized changes. The shift to remote work highlighted the value of online practice management systems like Clio. Remote access enables lawyers to view client and matter information, generate documents, and work effectively from anywhere—making it invaluable for solicitors on the go.
- *Transparency:* If AI is used in automation, firms must ensure transparency in how algorithms make decisions. Legal professionals should be able to review and verify AI-generated content to prevent potential errors or biases in automated workflows.

CONCLUSION

Legal automation keeps evolving and expanding into more areas of legal practice. It has become an essential tool that modern law firms must embrace to stay competitive. Embracing legal automation today can transform your firm's operations, creating a smoother, faster, and more client-focused workflow. The firms that proactively integrate legal automation into their processes will gain a strategic edge in an industry that is increasingly digital. There is now an abundance of secure and reliable AI tools for automating document generation, redaction, analysis, and more.

With advances in artificial intelligence (AI), robotic process automation (RPA), and no-code platforms, legal automation is not just an emerging trend; it is a must-have tool for law firms that want to stay competitive. Automation is not here to replace lawyers; it is here to make them more effective. More information on legal automation is available from the books in [11,12].

REFERENCES

- [1] J. Jacinto, "Legal document automation: A complete guide," July 2024, <https://flowtrics.com/legal-document-automation-guide/>
- [2] S. Lim, "A beginner's guide to legal automation," May 2021, <https://lawgazette.com.sg/practice/tech-talk/a-beginners-guide-to-legal-automation/>
- [3] G. Garman, "Building a profitable law firm using automation," <https://www.lawclerk.legal/blog/building-a-profitable-law-firm-using-automation/>
- [4] "How legal workflow automation turns thousands of tasks into one," May 2023, <https://legal.thomsonreuters.com/blog/how-automation-turns-thousands-of-tasks-into-one/>
- [5] J. Seduski, "How legal automation is changing everyday work for law firms," February 2025, <https://www.templafy.com/legal-document-automation/>
- [6] T. Litify, "Automation: How law firms get more done with less," <https://www.litify.com/blog/how-your-law-firm-can-get-more-done-in-less-time-with-process-automation>
- [7] "Legal document automation: The complete guide for 2025," <https://erbis.com/blog/legal-document-automation/>
- [8] "Definitive guide to legal document automation for in-house," <https://legalsolutions.thomsonreuters.co.uk/en/explore/definitive-guides/document-automation-in-house.html>
- [9] "What is legal automation?" May 2023, <https://www.checkbox.ai/blog/what-is-legal-automation>
- [10] E. Bogin, "What is legal document automation, and why is it the new business standard?" August 2024, <https://mitratech.com/resource-hub/blog/what-is-legal-document-automation-and-why-is-it-the-new-business-standard/>

- [11] P. Wahlgren, *Automation of Legal Reasoning (Computer/Law Series)*. Springer, 1992.
- [12] A. Bailey, *AI and the Legal Field: Automation, Ethics, and Intellectual Property*. Independently Published, 2023.



Figure 1 Legal work traditionally involves a pile of documents [1].



Figure 2 A representation of automation [3].

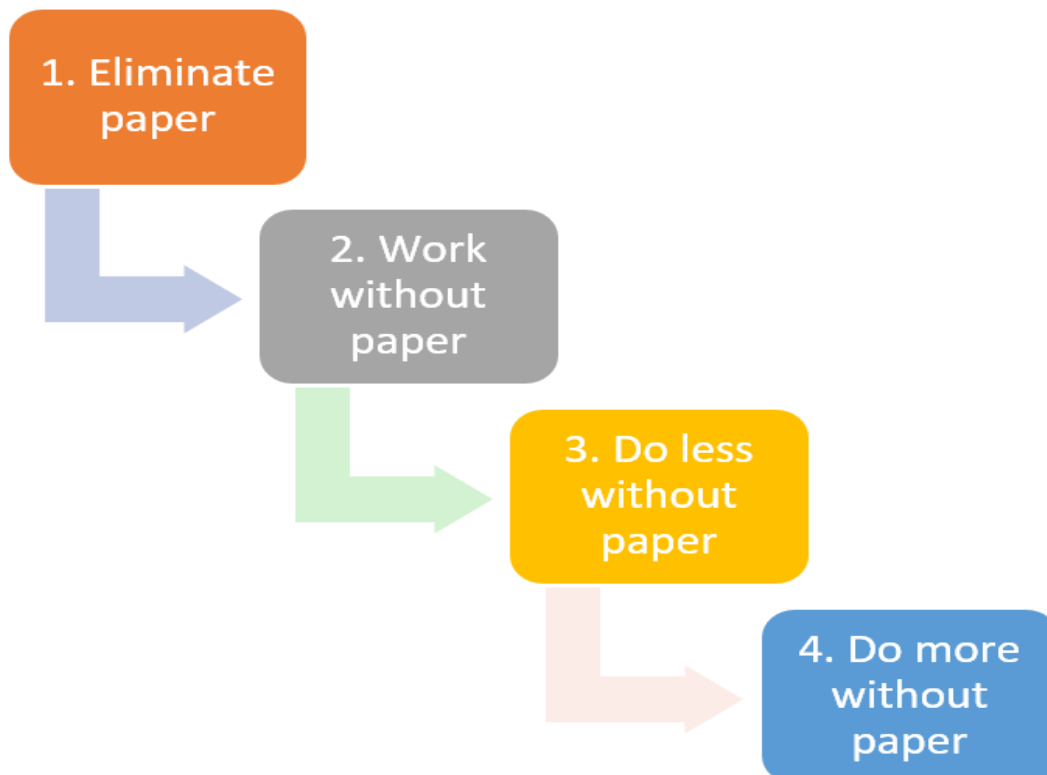


Figure 3 How lawyers need to do less with paper [2].

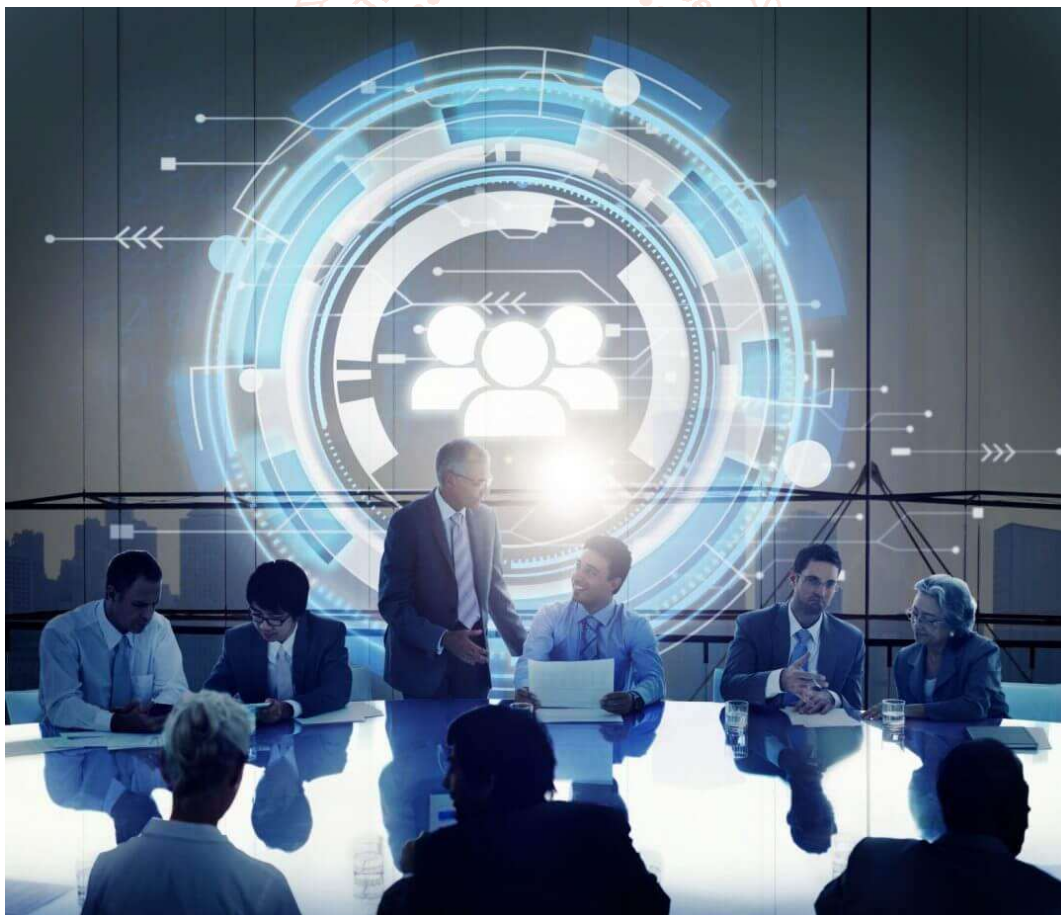


Figure 4 A group of lawyers at work [6].



Figure 5 Representation of document automation [7].

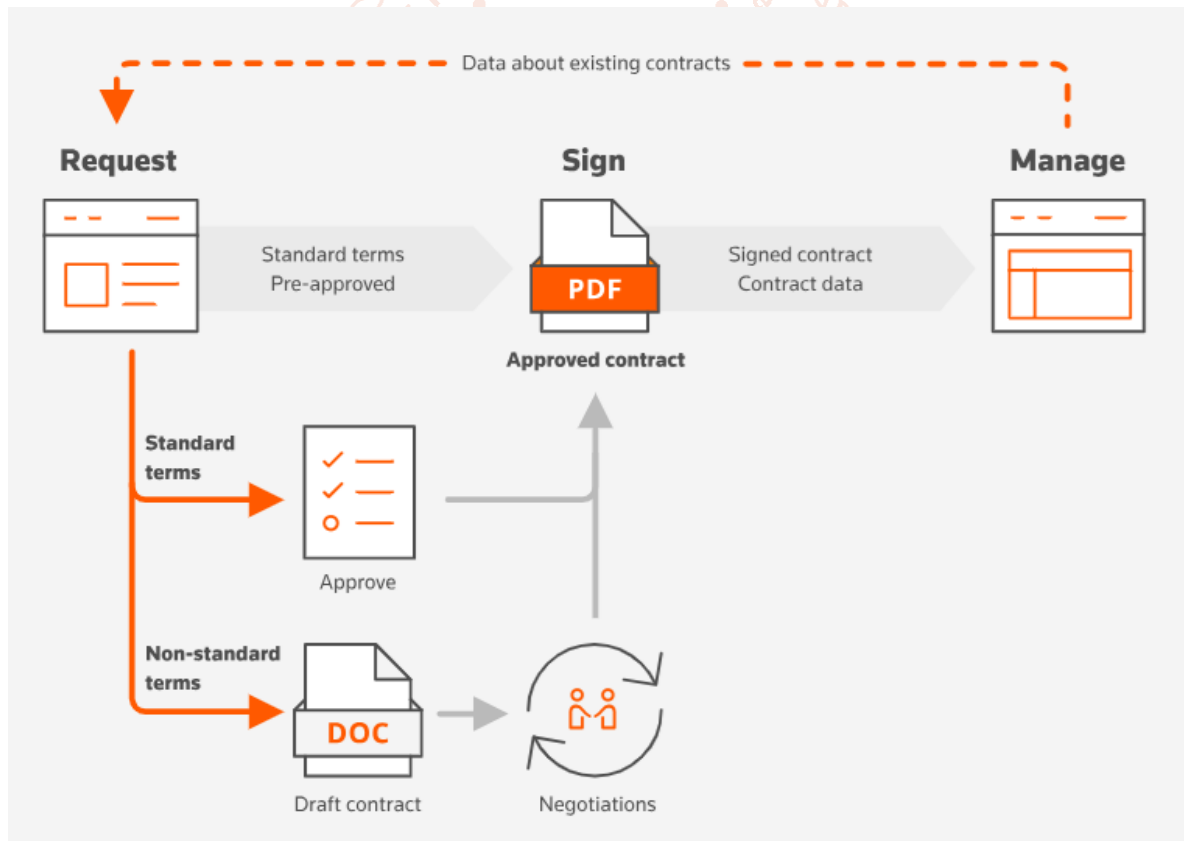


Figure 6 How legal document automation process works [8].



Figure 7 An example of signature [7].

	WITHOUT DOCUMENT AUTOMATION	WITH DOCUMENT AUTOMATION
Lease	60 Minutes	24 Minutes
License for Alterations	30 Minutes	12 Minutes
Rent Deposit Deed	18 Minutes	6 Minutes
Total	1 Hour 48 Minutes	42 Minutes

Figure 8 Significance of time savings [10].



Figure 9 Some of the benefits of legal automation [8].