AI-powered contract analysis

How sophisticated innovation is delivering efficiencies for modern law departments
Contracts: essential yet inefficient

Verba volant, scripta manent! You don’t need Latin-101 to understand that contracts are essential to an organization’s success (“spoken words fly away, written words remain”, in case you were wondering). For lawyers and their organizations, contracts are critically important, as is the effort that goes into creating and reviewing them. However, contracting is rarely done efficiently or effectively. The Harvard Business Review has highlighted studies suggesting that inefficient contracting can result in companies losing 5% to 40% of the value of a deal.

Legal departments handle huge numbers of contracts at any given time, all of which have obligations to monitor and risks to mitigate. Some are as simple as a standard non-disclosure agreement; others are excruciatingly complex and lengthy. Often times, organizations operate outdated, hard-copy contract management systems consisting of little more than filing cabinets and ineffective labelling. Even for organizations that operate modern filing systems—usually little more than a hierarchy of folders on a local or shared drive and a spreadsheet to record them—keeping track of these documents and the terms therein is difficult to say the least. Lawyers and business leaders can’t use these static data repositories for anything more complex than basic queries. Identifying key risks and opportunities, obligations and rights in your contracts is crucially important, yet meaningful extraction, analysis and review of contract terms and associated data is near-impossible.

Inefficient contracting can result in companies losing 5-40% of the value of a deal.

Source: Harvard Business Review

Contract review is critical, but time-consuming, costly, and tedious work. It requires the unique combination of legal expertise and the ability to interpret legal language that only lawyers possess. But reviewing many, often similar, contracts as part of a large transaction can be mind-numbing. Paragraphs written differently may mean the same thing. But similarly-written paragraphs with a single word change can flip the meaning. Keeping it all straight is a challenge. But the review isn’t the end goal. Your business leaders want you to interpret and explain what these contracts mean to them. That means translating legal language into business language and assessing risk—a largely subjective task. This kind of interpretation is precisely why the world needs lawyers and requires a significant amount of human expertise.

Shifting demands

For many corporate law departments, having to do more with less is hardly a novel experience. The pressure for GCs, legal operations and others in law departments to demonstrate their value to the business has been almost ever-present in recent years. The pandemic not only exacerbated these challenges but introduced new ones.

The last 12-24 months have seen significant changes for many legal departments. Lockdown regulations around the world saw businesses rapidly pivot to home working, often with little or no preparation. According to the Thomson Reuters 2021 State of Corporate Law Departments (SCLD) report, eight times as many law departments experienced a surge in workload (58%) as experienced a dip (7%). However, for many departments, this increase in workload came at the same time as rapid-fire budget cuts across many organizations. As revenues fell, department leaders had to move quickly to protect the financial viability of their business models.

The 2021 SCLD report paints a stark picture, pointing out that nearly five times as many law departments suffered budget cuts as saw budget increases. Doing more with less was no longer a business desire, but an imperative.
The pandemic not only meant budget cuts and increased workloads, but also evolved workloads. Businesses and their legal departments are familiar with an ever-changing disputes environment. For example, recessions often lead to more litigation as aggrieved parties seek to assign blame and stem losses. The 2021 SCLD report found that 40% of law departments predicted that spend on disputes would be higher than pre-pandemic levels, twice as many as those who foresaw lower spending on disputes (18%). Of course, it is the role of in-house counsel to mitigate such risks and the most common dispute prevention measure is that critical, time-consuming and risk-laden task: contract review.

Top COVID-19 dispute prevention measures

- Contract review/renegotiation: 30%
- Compliance with new regulations: 27%
- New policies: 21%

Over 12 months on from the pandemic, as businesses begin to get to grips with the new normal, we are starting to see a shift in how law departments are operating, and technology is playing a huge role. Arran Braganza, CEO of Jalubro, a London-based legal and technology firm, told Thomson Reuters that one of the biggest effects he’s seen from the pandemic “has been around the rapid technology advancement and digitalization of the legal workplace.” Braganza added that “the speed at which legal departments have been forced to adopt new technologies and move towards becoming a digital workplace has been unprecedented.” He points to three main drivers of this shift:

- The need to adopt technology to enable all parties to work remotely and collaboratively.
- The need to increase cost savings, in part via reducing outside legal spend.
- The need to increase legal department effectiveness, not only through new technology but also giving lawyers new skill sets.
Data from the Thomson Reuters Legal Department Operations (LDO) Index 2021 backs this up, showing that the adoption of critical legal technology is expanding as departments look to enhanced technological solutions and digitalization to improve efficiency and law department costs. The report showed that more than half (52%) of legal departments have increased their use of legal technology over the past year.

![52% of legal departments have increased their use of legal technology in the past year.](source)

**Data, expertise, and technology**

Legal technology has exploded in the last five years; the LDO Index 2021 identified nine key legal technology tools or solutions that are being used by more than half of legal departments surveyed. Impressively, particularly given the disruption of the pandemic, this was up from six identified technologies in the 2018 LDO Index.

Further data from the LDO Index 2021 highlights that contracting tools are becoming increasingly important for legal department leaders. Contract Management and Contract AI for analysis, risk assessment, or due diligence, were two of the top five solutions that legal departments are looking to procure in the next 24 months.

### Fastest growing solutions – legal departments looking to procure solutions in next 24 months

1. **Legal Workflow Automation**  
   27% looking to procure
2. **Contract Management**  
   22% looking to procure
3. **Document Management**  
   22% looking to procure
4. **Contract AI for analysis, risk assessment, or due diligence**  
   20% looking to procure
5. **Knowledge Management**  
   19% looking to procure

Of course, technology is constantly improving, and artificial intelligence and machine learning capabilities are the next huge transformative leaps in creativity and innovation. Of course, AI is already integrated into our daily lives. The technology in our smart phones can predict where we might be going and prompt us to see what the traffic is like on the best available route. Virtual agents or chat bots routinely ask us how they may help as we browse and shop online. Algorithms and predictive computing present us with the best possible personalized search results. In a work setting, more and more legal professionals are seeing the potential in transformative AI-powered technologies that help them automate routine tasks, collaborate more effectively, and more efficiently manage their workflows. AI-powered technology gives lawyers more time to focus on strategic client work rather than repetitive, low-value tasks.

AI uses fast, iterative processing and algorithms to analyze and see patterns and features in vast amounts of data. Important AI subfields include machine learning, in which computer systems learn and adapt based on the data they are exposed to, and natural language processing, which enables computers to understand, translate, and respond to human language.

The most powerful legal technology innovations use at least some artificial intelligence. Where technology 1.0 simply digitized manual tasks, tools informed by machine learning take best practices learned from other peoples’ trial and error and seamlessly apply them to what you’re working on. Today’s more intuitive, user-friendly tools aspire to support a lawyer’s workflow rather than forcing new processes or ways of thinking. And when you do update your process or way of thinking, the tools can support you rather than needing to be swapped out or reinvented.
As we have seen already, contract review and analysis fall neatly into the category of time-consuming, tedious work that is ripe for a smart, innovative automation solution. AI-powered contract analysis solutions can easily highlight and extract data and clarify the content of contracts. Should you wish to see renewal dates and renegotiations terms from any number of contracts, or perhaps check on particular obligations or whether a mutual right to break the contract exists, an automated tool can do in minutes what might take you hours or even longer. Such solutions enable legal teams to review contracts more rapidly, organize and locate large amounts of contract data more easily, decrease the potential for contract disputes, and allows lawyers to focus on delivering value to their organization.

For AI-powered legal technology to deliver the best results for legal departments, they require three crucial, interlinked ingredients:

**Data** is key because it is often the input and the output of the process. Data is necessary to train machine-learning algorithms and so for any legal technology solution to be worthwhile, it requires large quantities of content that is current, accurate, comprehensive, and enhanced.

**Expertise** is crucial because it ensures AI tools are solving the right problems and capturing the nuances of the domain in a way that we can understand and analyze. Subject matter experts drive the generation of training data and validate the performance of machine-learning algorithms and play a critical role in error analysis. They help computer scientists and engineers understand the domain as well as the data attributes responsible for errors, so they can be corrected.

**Technology** drives AI solution design and development, which typically requires robust, complex solution architectures that can work at scale. This is how AI scientists combine expertise in AI tools and technologies, analytical and problem-solving skills, and a solid understanding of the target domains.

AI-driven contract analysis can be built around specific legal domains, for example, real estate, sales, intellectual property, or employment. Such solutions can be “pre-trained” with expert information and equipped to learn from the contracts and documents it is subsequently exposed to.

- **Ingest**: Convert documents into machine-readable formats and classify the documents.
- **Define & Extract**: Access and customize the review task lists for automatic fact and concept extraction.
- **Review & Analyze**: Navigate, edit, and annotate the machine-generated results and compare documents, comment, and flag issues or risks.
- **Report**: Review results and onward workflow in contract management platform, and create reports and visualizations.
Such tools ingest documents, classifies them, and identifies key information such as parties, dates, deal value, language, jurisdiction, and governing law. They can then automatically retrieve defined terms and definitions within the contract and answer review queries and specific questions. Some tools create data visualizations for a large set of contracts, display clauses side-by-side for easy comparison, compare contracts to company or industry standard documents, and efficiently identify non-standard terms, deviations, and risks.

**Every keystroke counts**

By reviewing and extracting information from large volumes of contracts and tracking similar information across documents, AI-driven tools relieve lawyers of unrelenting administrative work. They are freed to spend more time assessing and mitigating risk, identifying opportunities, and delivering essential insights to their companies and clients. Increasingly, legal teams will train their AI systems with content from their own repositories of contracts and legal documents to create more precise, bespoke outcomes.

Adopting an AI-powered contract review and analysis solution enables you to go beyond the typical extraction of facts and clauses from legal agreements to easily answer the specific questions you need answered—in easy-to-read reports. The benefits to your legal team are clear:

- **Increase efficiency, reduce risk, and accelerate the document review process** for transaction due diligence, compliance review, and contract investigation.
- **Analyze and compare documents** in bulk as well as single document review.
- **Reduce time pressure** to deliver detailed high-volume reviews to meet transaction deadlines.
- **Gain market and competitor insights** from the data universe of your past deals.
- **Instantly identify deviations**, even when working with multiple formats of agreements/contracts.
- **View extracted information** in full contract context.
- **Reduce human error** by first-round identification of deviation and risk areas.
- **Collect and update common issues**, key facts, and contract language into an internal knowledge bank for future transactions.

For busy lawyers, every keystroke counts. A contract analysis and review solution frees your time, saves you money, and empowers you to focus on legal tasks that deliver greater value to your organization.
**Innovation, not revolution**

While AI and machine learning technology itself is immensely powerful, it isn’t revolutionizing legal practice to the point of eliminating the value of lawyers, it’s simply helping to make the job easier by reducing time spent on labor-intensive—but not necessarily intellect-intensive—tasks.

Contract review software is best suited for triage and fact extraction from legal contracts at volume. It eases the burden of keeping track of similar pieces of information across documents – something human brains aren’t very good at, but at which computers excel. We might call this the administrative work of contract review.

The real value lawyers offer their clients is the human interpretation and analysis that turns legal language into valuable business insight. If machine learning can take on more of this “administrative” work, it frees lawyers up to focus on the valuable human work clients care about. This might mean faster reviews or higher possible volume, but it will certainly mean happier clients.

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