Transforming Contract Analytics into Actionable Intelligence
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“Distant Early Warning Signs”

For many, this is the best of times to be a lawyer. Indeed, the first sentence of the 2019 Citi-Hildebrandt Client Advisory makes this clear: “The US law firm industry is enjoying its strongest growth in almost a decade.” Likewise, the Altman Weil 2018 Chief Legal Officer Survey makes it equally clear that times are good for corporate legal departments as well:

Forty-two percent of CLOs said they would increase their lawyer workforce in the next 12 months, compared to only 7.5% that plan a decrease. This degree of growth . . . is part of a long-term trend the survey has tracked since 2010.

The 2019 Report on the State of the Legal Market by the ThomsonReuters Legal Executive Institute and the Center for the Study of the Legal Profession at the Georgetown University Law Center presents a similar-sounding strong initial take: “the U.S. legal market overall showed positive trends during 2018.”
And yet, just behind this surface of good news is a more troubling reality, as comments from industry experts reveal:

Veteran industry expert Mark Cohen, in his coverage of the Citi-Hildebrandt report, starts with the positive, but quickly turns ominous with “But as Gilbert and Sullivan cautioned, ‘Things are seldom what they seem.’”

Rich Strom, a long-term columnist of law firms for Law.com gives his take on the ThomsonReuters/Georgetown report “As Rich Firms Set the Market, Mid-Tier Firms Wrongly Follow, Report Says”

Renowned law firm advisor and legal economist Bruce MacEwan of the AdamSmithEsq blog sounds the alarm over the “distant early warning signs of headwinds” in the Citi-Hildebrandt report.

The reality is that, even for lawyers for whom things are great, changes are afoot. And many lawyers, frankly, don’t like it. They may believe that indeed the worst of times are just ahead. But for those who do like it, who can embrace change, the future may never have been brighter.
What is content intelligence?

Content intelligence is the systems and software that turn data into actionable insights.

80%

Nearly 80% of organizational knowledge assets are unstructured.

Content intelligence technologies are designed to help organizations surface business critical information contained in unstructured or semi structured content.

The Content Intelligence Revolution at Hand for Lawyers and Their Organizations

As the recent landmark law journal article “Lola v. Skadden and the Automation of the Legal Profession,” in the Yale Law School Journal of Law and Technology discusses “Technological 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 . . . to survive the rise of technology in the legal field, lawyers will need to adapt to a new ‘practice of law.’ Lawyers have, of course, heard this before, and the Yale JOLT article cites similar-sounding warnings of the pre-eminent rise of the robots to replace lawyers . . . from 1963. In fact, English author Samuel Butler, seen as the inspiration and precursor to futurists such as Aldous Huxley (author of “Brave New World”) was warning about the dangers of machines taking over all the way back in 1863: “the time will come when the machines will hold the real supremacy over the world and its inhabitants is what no person of a truly philosophic mind can for a moment question.”

Yet, as they say, this time is different. As the authors of the Yale JOLT article discuss, exponential advances in technology, not only the incredible increases in processing power coming from Moore’s Law, but also in storage capacity from Kryder’s Law, and networking power from Neilsen’s Law, have lead us to the point where, per Amara’s Law that “We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run” we find ourselves now in that long run. And in this Brave New World technology provides lawyers and organizations not just the ability to create content, use it and move it around, but to understand it – in other words, we are now in the age of “content intelligence.”
Content Intelligence Empowers Organizations to Finally Realize Genuine Efficiency Gains from Technology – If They Are Ready

The general tone of most law department leaders towards technology is hopeful. In the recently-released Lexis 2018 Insights “Looking past the hype” report, 57% of the general counsel surveyed believe that technology investments have already increased their department’s productivity. Moreover, 60% of general counsel surveyed by Lexis believe that technology will help improve the accuracy of their legal work in the next 3-5 years.

Likewise, two-thirds of the law departments in the Altman Weil study reported investing in technology as a way to improve efficiencies. While the types of technology employed by general counsel obviously widely varied, two of the more common types reported were “Contract Management,” at 48.3%, and “Contract Review” 13.4%. While it is difficult to be certain what exactly is encompassed within the definition of each term for each respondent, we believe that this does show that there is still a lot of room for organizations to adopt the type of AI-driven systems that can deliver the necessary degree of content intelligence to provide true contract analytics.

In fact, turning back to the new Lexis report, further results show that law department leaders, though hopeful, still suffer many outstanding issues and pain points which contract analytics could potentially solve. More than two-thirds, 68%, of general counsel surveyed reported that “I do not have the tools to record contract data.” As well, just slightly more than another third, 34% stated that “I spend too much time reviewing documents.”

Turning again to the Altman Weil report, it becomes clear that these pain points won’t necessarily be easy to ameliorate. The report shows that just barely more than half of general counsel expect a budget increase in the coming year, and of those who don’t nearly a third expect to see their budgets – but not their work or responsibilities – shrink.

Thus, it is time for organizations to find a way to do more with less. Legal departments and the companies they support need to focus on the right technology that can drive clear ROI. There are many potential paths for them to do so, but not every answer delivers. The last – and perhaps most important – lesson that we can draw from the Altman Weil report is that of those departments that invested in technology, however, only slightly more than half reported that they actually saw provable gains in efficiency.

There are many contract analytic systems out there, but only some provide the true content intelligence and features needed to create those desperately-needed gains in efficiency. We’ll look into some of those features now, as we start with an examination of the central importance of contracts to organizational effectiveness.
Contracts are the engine of a business

Contracts contain the critical business intelligence you need to run your enterprise. Yet, enterprises continue to struggle to do something that seems simple: connect contracts to business value.

Research by the International Association for Contract and Commercial Management has found that inefficient contract life cycle management processes may cost organizations as much as 9% of their annual turnover.
According to the Institute for Supply Management, a typical Fortune 1000 company manages anywhere between 20,000 to 40,000 active contracts at any given time, 10% of which are misplaced, difficult to find, still in paper form, or on a file share somewhere, or buried in an email attachment, not managed. Organizations continue to struggle to do something that, in the abstract, seems simple: connect business documents to business value, to mission-critical processes that drive revenue or mitigate risk. Organizations continue to experience significant challenges in extracting value from their contracts. Per the Harvard Business Review earlier this year:

“Contracting is a common activity, but it is one that few companies do efficiently or effectively. In fact, it has been estimated that inefficient contracting causes firms to lose between 5% to 40% of value on a given deal.”

It’s time for organizations to get better at this. Fast. The need to gain insight to business-critical information contained in contracts is more pressing primarily driven by an increasingly more onerous regulatory environment. Consider just two examples:

First, the EU General Data Protection Regulation:

The GDPR is a far-reaching regulation that has a powerful impact, far beyond the short-term hype that accompanied the run-up to its implementation in May, 2018. A recent survey by EY found that the world’s 500 largest corporations are forecasted to spend as much as $7.8 billion on GDPR related compliance activities.

Second, Accounting Standards Codification 606: ASC 606 is a revenue recognition standard developed by the Financial Accounting Standards Board that affects all businesses that enter into contracts with customers to transfer goods or services. Compliance with this standard requires organizations to review all existing supplier agreements, ascertain the performance obligations buried therein, determine the transaction price associated with goods and services and the amount that may be recognized as consideration.

Contracts formation tends to be a decentralized process leading to inconsistencies in negotiated business terms. Absence of standard terms across all agreements exposes organizations to additional risks by not having sufficient visibility to their obligations across multiple suppliers and trading partners. Moreover, organizations are challenged in having to normalize and synchronize their standard contractual terms with third party paper where a counterparty with greater bargaining power negotiates more favorable terms which then requires additional resources to manage risk. Studies by EY have found that lack of standardized terms creates value leakage on third-party contracts which can vary from 5% to 15% of the contract’s value.
Businesses need more horsepower to keep up

With all these new demands on businesses to understand and manage the content of their contracts, process efficiencies are imperative to reduce transaction costs while at the same time improve productivity through automation of repetitive error prone tasks; to stick with our metaphor so far, if contracts are the engine of business, businesses need engines with a lot more horsepower to stay in the race. Unsurprisingly, the general counsel respondents to the Lexis 2018 study demonstrated that more than half of them, 53% spent “too much time on repetitive tasks.”
More and more organizations are adopting emerging Robotic Process Automation (RPA) technologies designed specifically to:

- Leverage cloud-based consumption models that empower organizations to minimize capital expenditures and dynamically provision incremental computing resources commensurate with organizational demand;
- Preserve existing IT investments by augmenting legacy systems; and
- Automate mundane rules-based business processes enabling skilled resources to focus on higher value tasks.

While (RPA) technologies are predominantly based on supervised rules-based machine learning algorithms more advanced cognitive analytics technologies are proven to deliver high degree of precision in surfacing relevant contextual information by mimicking how humans think: Per a recent article in CIO Magazine: “Enterprises can supercharge their automation efforts by injecting RPA with cognitive technologies such as ML, speech recognition, and natural language processing, automating higher-order tasks that in the past required the perceptual and judgment capabilities of humans.” Moreover, RPA can be designed to integrate with existing human workflows, organizational systems of record such as Contract Life Cycle Management (CLM) systems and to Enterprise Content Management (ECM), Enterprise Resource Planning (ERP) and Electronic Document Management Systems (EDMS), or both.

What is robotic process automation

“Robotic Process Automation (RPA) is accelerating the digitalisation of business support areas. RPA creates a virtual workforce of software robots that emulate human execution. Applying robotics to support processes includes dramatic reduction of cost and frees up human capital to refocus on complex and high-impact functions.” – E&Y, 2016 Professional Services Insight
Unrealized Revenue Opportunities

There are measurable direct and indirect benefits associated with the application of contract analytics to financial processes such as procure to pay and order to cash. Contract analytics enables organizations to realize as much as 30% savings in contract administration costs and 20% cost reduction associated with terms and conditions compliance analysis.
There are specific areas where finance organizations stand to achieve cost efficiencies and realize incremental profits. Invariably, contracts include price, volume and discount terms. By gaining better visibility to these contractual terms finance departments may, for example:

- Match contract pricing and performance obligation clauses against purchase orders and invoices to ensure that suppliers are meeting their performance obligations;
- Extract Contract entities (e.g. volume discounts, payment terms, and rebates) and match them against ERP master file;
- Properly capture supplier contracts in CLM, ECM, ERP and EDMS systems;
- Identify inaccurate supplier billing which may result in overpayment; and
- Exercise better leverage with suppliers, identify any potential gaps to extend early payment discounts, thereby improve returns on invested capital and achieve improved supplier relations.

A particular challenge for finance organizations is to maximize billing opportunities associated with Service Agreements.

A study by Genpact found that organizations may “experience as much as a 10 percent increase in deal-specific revenue and 15 percent higher profits through contract analytics.” A separate study by Genpact found an 8-10% improvement in service revenues through strong T&C compliance to avoid missed billing opportunities and enhanced understanding of contract risk.

One particular area of concern is “evergreen contracts.” They are agreements between parties that automatically renew after a certain date until canceled by the deliberate action of one party or another. Many evergreen contracts have very specific requirements for cancellation, often with 30, 60 or even 90-day limits before the date of the automatic renewal by which a party must cancel. According to Gartner Group, 60% of all supplier contracts automatically renew without the knowledge of the buyer simply because the buyer fails to give notice of termination. For such evergreen contracts, the goal of any organization should be to extract the start date, renewal date, notice period and any other requirements for cancellation and then connect those dates to the necessary system of record.
Contract analytics can help organizations review their existing agreements, evaluate them against pre-defined GDPR clause libraries, identify compliance gaps and standardize to make sure that such agreements incorporate:

**Obligations Analysis**

The EU General Data Protection Regulation (GDPR) is rapidly becoming one of the most challenging compliance issues for organizations to deal with not just within the EU, but across the entire globe. Experts report that the world’s 500 biggest corporations are on track to spend a total of $7.8 billion to **comply with GDPR**. At the same time, according to the recent International Association of Privacy Professionals and EY Annual Governance Report 2018, more than half of all companies are not in full **compliance with GDPR**.

Companies that believe that they will somehow be immune to GDPR issues, will find that the new Regulation has a far broader, extra-territorial reach than the Data Protection Directive that it replaced. Any company in the US or elsewhere that do business with EU “data subjects,” not just EU citizens, are required to adhere to the provisions of GDPR. The Regulation applies to organizations inside and outside the EU. The territorial scope of GDPR is broad. Physical presence is not required.

The GDPR Accountability Principle requires organizations to implement appropriate organizational and technological measures to safeguard data subject rights, including the “right to be forgotten” (i.e., to require an organization to find and delete all of the personal data it has concerning you). To do so, organizations must maintain a detailed record of all processing activities, respond to data subject requests within 30 days of such request and provide notifications of potential data breaches within 72 hours.

**Records of all processing activities**

**Adequate information security provisions**

**Audit rights to ensure GDPR compliance**

**Comply with data subjects’ rights (including the processing of data subject requests)**

**Managing the consequences of data breaches**

**Return all personal data at the end of the contract**
Accounting Standards Codification ASC 606 became effective at the beginning of 2018 and affects all businesses that enter into contracts with customers to transfer goods or services. ASC 606 prescribes a new methodology for recognizing revenue from ongoing relationships with customers, identify the obligations, determine the transaction price and allocate the transaction value to performance obligations. According to Deloitte, “the new standards significantly increase the amount of information companies are required to disclose about their revenue activities.”

ASC 606 is designed to address and resolve revenue recognition inconsistencies in both US GAAP and IFRS by standardizing revenue recognition practices across industries as well as provide more transparency and visibility to investors. Failure to do so will put the organization out of compliance with Generally Accepted Accounting Principles (GAAP) which creates significant compliance risk. As Accounting Today once put it “Non-compliance is a huge risk. Revenue recognition errors are the biggest reason for earnings restatements. Earnings restatements can lead to firings, fines and even jail time.” According to the PwC 2018 Q4 accounting change survey, among public company respondents with 1,000 or more contracts 25% expect to spend $1 million implementing the new revenue recognition standard, 47% have revenue recognition implementation teams of 6 or more, 39% said that costs were higher than originally budgeted or anticipated.

ASC 606 requires organizations to review and modify all existing performance obligations with suppliers and trading partners. One of the most time-consuming aspect of ASC 606 compliance is determination of obligations under the new rules and their treatment which can materially impact revenue and earnings. For example, under previous guidance indirect costs associated with a contract could have been amortized but under the new rule it must be capitalized. An incremental cost is a cost that an organization would not have incurred without signing a deal.

Using Contract Analytics to Tackle an Otherwise Overwhelming Task

An F500 diversified financial services company had to get through a huge number of contracts to complete a CLM integration. The company had over 75,000 contracts to review, with the need to extract around 10-15 clauses and critical metadata from each.

The solutions that they originally found would have taken them years to complete that process. As well, the budgetary demands for those solutions would have been overwhelming.

Using ABBYY’s technology, the company was able to complete the process in less than four months. Further, ABBYY’s technology was vastly cheaper than the initially-proposed solutions, meaning that ABBYY not only saved them time, but lots of money as well.

No Time to Lose to Achieve ASC 606 Compliance

A leading international research firm needed to review over 12,500 contracts for compliance with the new ASC 606 standards. The firm performed a three-tier review, starting with an initial validation of the contracts and OCRing, then moving on to an SME review of the specific contract clauses that could be potentially impacted, and finishing with a QC check.

Through this process the firm was able to identify approximately 500 materially significant issues to track and remediate within its contracting set. Thanks to ABBYY’s technology, the firm was able to complete its review in less than 60 days, on time and under budget.
What to Look for in a Contract Analytics Solution

Now that we have covered the value of contract analytics let’s take a closer look at the capabilities that you should consider for a contract analytics solution.

First, as table stakes it important to ensure that your solution incorporates powerful document recognition capabilities that transforms documents, be it your organization’s or third-party paper to machine readable text. Once captured, business-critical data must be automatically validated for accuracy and compliance. Finally, for fundamental capabilities, your solution must integrate into corporate information systems such as CLM, ECM, ERP and EDMS – having to export or migrate data from a siloed system simply no makes sense in this day and age.

Next up is entity extraction. Your system needs to automatically identify and extract entities such as the names, organizations, and locations, dates, quantities and monetary value from contracts. Once you can get to this point, you can start driving efficiencies and creating business value.

Then your list of “must-haves” is Natural Language Processing (NLP). NLP helps to read and analyze textual information, infer meaning in context and determine which parts of the document are important by analyzing the co-occurrence of text and their relationships within and between documents. It’s this document understanding that transforms content into intelligence. NLP can be – and commonly is – combined with mathematical techniques to better cover specialized or uncommon language where NLP, which is driven by ontologies of known language usages, can have trouble.

A contracts analytics solution should be designed to address the following functional requirements capable of addressing the use cases described in a consistent and scalable manner:

- **Contract Discovery:** The first step of any contract analytics project is finding and digitizing all of the contracts including third-party paper, converting documents into machine-encoded text, using OCR technology which can then be analyzed;

- **Contract Classification:** After finding all the contracts the next step is to figure out which ones are actually active and how the mass of agreements, addenda, appendices, purchase orders and more all fit together;

- **Segmentation:** Breaks each document down into its component parts, particularly clauses and business terms and pull specific components, facts and attributes from contracts. Leverage the human generated organization of sectioned documents to analyze the information captured within logical, contextual sections, and as a guide for advanced classification and categorization;

One of the things to look for in advanced systems is the ability to leverage the human-centered guidance qualities of documents – or as they are better known: document sections and headlines. After all, those document sections and headlines are there for a reason, because nobody wants to (or even can) make sense of dozens or even hundreds of pages of contracts without them. The advanced capability to leverage such guidance, which we call “Document Sectioning” provides a uniquely differentiated approach that identifies business-critical information from that human-generated organization of sectioned documents and then maps this into NLP algorithms to automate the contextual analysis of clauses within sections and lift associated entities and fact identification in a way that is implicitly understood by humans. More advanced systems even provide micro-ontologies that dramatically improve precision along with recall, which is typically impossible to do at the same time!

An important feature to look for is open standards-based architecture that provides for flexibility in provisioning resources as you need them without cost prohibitive capital expenditures. Add in a multi-tenant system, to provide an extensible, secure environment for customers to focus on extracting content intelligence from their client’s business-critical documents, and you now have a serious solution for value-added partners to develop their own approaches on top of that technology stack.
AI and Advanced Machine Learning engine that supports Supervised Machine Learning, and Batch Machine Learning to get a jump start, and Online Machine Learning to continuously improve, mature, train, and tune for better prediction results.

Modular, open, configurable solution: Allow users to “snap-in” or “snap-out” best-of-breed AI and NLP components as necessary for their specific needs and specific workflows;

Highly configurable processing workflows: Enables individual customers to create different workflows using specific micro-services such as recognition, classification, entity extraction, semantic analysis and NLP;

Web front-end/UI: Empowers Administrators and Project Managers to manage and oversee document processing projects, handle exceptions, manage templates and train the system to refine extraction logic;

Clause comparison and analysis: Accelerates determination if contracts comply with regulatory requirements, understands the obligations embedded within a contract to analyze the risks therein; and

Software as a Service: Provides flexible deployment options, with a zero infrastructure footprint, enabling clients to use it 24/7, when they need it, for the use case at hand.

Data Security: Provides high security by encrypting sensitive and confidential contract documents with customers own encryption key.

Integration API: Enable import of contract entities to a system of record which may span Contract Life Cycle Management Systems, Content Repositories, e-Discovery applications and Archival Systems.

Yet, all of these components will be just that, components, unless they are brought together by a platform to become the perfect synergy: a whole that is more than the sum of its parts. There are many solutions available in the market that address a part of the process, which requires data handoffs, separate workflows, security risks and many other potential headaches.

Technologies that support contract analytics should be viewed as a platform that empower subject matter experts to focus on higher value tasks and which delivers better insights to how best surface business critical information from your corpus of contracts: “The business is changing — the world is changing — and AI is molding and shaping the future of almost every aspect of our lives, including the law.

In the 16th century, Hans Geing depicted Lady Justice with a blindfold to represent her impartiality as it relates to wealth and power and now, almost 500 years later, that blindfold may well come in the form of a computer.”

Working with a provider of a complete capture platform, that can manage the entire cycle from digitize, extract, manage and then analyze gives you the confidence to build the process and workflow that works best for you — not what works within some limited, piecemeal system. Moreover, a strong platform player will let you plug-in the modules that you need for your unique requirements, whether those modules originate from the platform provider or from best-of-breed third-party partners.
ABBYY is a global leader in content intelligence solutions and services. ABBYY offers a complete range of AI-based technologies and solutions transforming business documents and content into business value. By providing digital transformation solutions to financial services, insurance, transportation, healthcare and other industries, the company helps organizations achieve the next wave of growth by understanding customers and delivering responsive real-time intelligent systems. The flexibility of ABBYY AI solutions enables customers to utilize a diverse range of advanced technologies, platforms and solutions for classification, text analytics, data and entity extraction, and data validation via any communication channel and in any format. ABBYY technologies are used and licensed by some of the largest international enterprises and government organizations, as well as SMBs and individuals. The company maintains offices in Australia, Cyprus, France, Germany, Japan, Russia, Spain, Taiwan, the UK, Ukraine, and the United States. For more information, please visit www.abbyy.com/company.

ABBYY Text Analytics for Contracts is a managed service that automatically discovers insights from contracts to speed content migration, obligation analysis and risk mitigation. Human-like understanding of contracts and leases using advanced linguistic and AI capabilities lets users speed read contracts by pinpointing sections, clauses and entities. Customers leverage ABBYY Text Analytics for Contracts modular micro-service, cloud-based architecture to customize processing capabilities as well as discovery, review and analysis workflows.

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