Luminance

Artificial intelligence for the legal profession

Luminance DILIGENCE

Product brochure

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WINNER

GOLD
2019 STEVIE
WINNER

BIG
INNOVATION
2019

computing
Women in IT
Excellence
Awards
2018

CogX
AI Innovation Awards 2017
WINNER
Best AI Product in
Legal

The Alconics

Introduction

Luminance is the world's most advanced artificial intelligence platform for the legal profession. Today, the technology is used by thousands of lawyers around the world, revolutionising the way legal teams conduct processes such as due diligence, contract negotiation, regulatory compliance reviews, property portfolio analysis and eDiscovery.

"Technologies such as Luminance are the future...the changes occurring in the legal industry present an opportunity for the firm and our clients."

Steven Sonberg,
Managing Partner,
Holland & Knight

Legal Inference Transformation Engine (LITE)

Founded by mathematicians from the University of Cambridge, Luminance has developed the Legal Inference Transformation Engine (LITE), the first true application of machine learning to the legal industry, combining pattern-recognition technology with supervised and unsupervised machine learning to read and understand human language, at speeds and in volumes far beyond human capacity. Luminance enables lawyers to analyse document sets and contracts with unmatched speed and enhanced confidence and applies that learning across all departments and practice areas.

No other technology comes close to this.

The legacy approach

Until recently, the legal profession has relied on time-consuming, repetitive manual processes for reading and analysing contracts. With enterprise data increasing at its current rate, these processes are no longer fit for purpose, and will be entirely unsustainable within the next few years. Whilst legacy solutions have tried to solve this problem through resource-intensive, extraction-based approaches, these systems are outdated and can no longer keep pace with the modern lawyer.

As trusted advisors, lawyers need to work faster, keep a clear head and provide the most valuable advice to their clients. They can't afford to compromise, and yet practices that have become commonplace in the last decade force them to do just that:

Sampling: Legal teams should no longer have to make assumptions that all risk and opportunity exists within an ever smaller, selected proportion of the overall document set. The exercise of sampling is no longer fit for purpose.

Outsourcing: Some firms have chosen to allocate the task of detailed document review to low-cost resources who don't have the context or experience to add valuable insight to a deal. The reports they produce can run into several hundred pages and are unlikely to be read by anyone, least of all the client.

Extraction: Legacy systems have required legal teams to spend more time working in spreadsheets than reading contracts. Luminance allows lawyers to view the entire scope of a project and master everything, from document review to task allocation and progress monitoring, meaning they no longer need to spend their time away from the context of the deal. It is time to move beyond clause extraction. True machine learning removes the need to compromise, removes the need to train the machine and enables lawyers to return to their role as trusted advisors.

At Luminance, we believe it is time to get back to first principles. Clients trusts their advisors to give them the best possible advice, based on experience, insight and their interpretation of the substantive issues that may be buried in the detail. Lawyers need to act quickly and decisively to help their clients make decisions, and need more flexible tools to do so.

Luminance DILIGENCE

Leveraging the machine learning capabilities of LITE, Luminance Diligence truly revolutionises processes such as M&A due diligence, property portfolio analysis and model document comparison. From global organisations to small independent law firms, the platform has been developed to cater for every step of the due diligence process. Deployed within minutes and with no customisation, set up or configuration, Luminance Diligence assists lawyers and managers in conducting the most eff ective, comprehensive and coordinated review possible.

Features:

VISUALISE

Luminance reads and understands every detail, pattern and characteristic across an entire document set, and presents the data back to the user in an interactive, easy-to-use dashboard.

ANALYSE

For a more detailed analysis of specific documents, Luminance provides a breakdown of the different elements within individual documents, including clauses, and anomalies.

REVIEW

Luminance allows lawyers to compare and contrast documents to understand where similarities and differences lie, and review each individual contract using intuitive tools that pinpoint the most important matters from the outset.

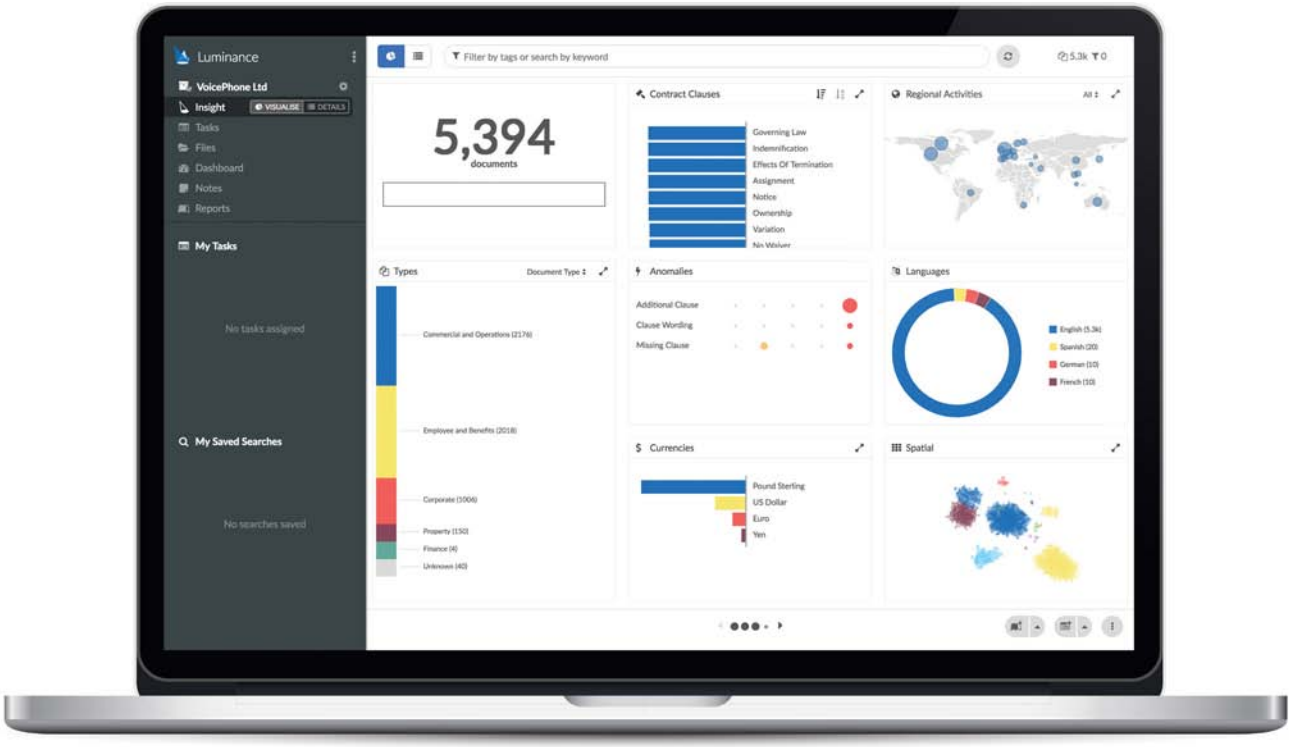
MANAGE

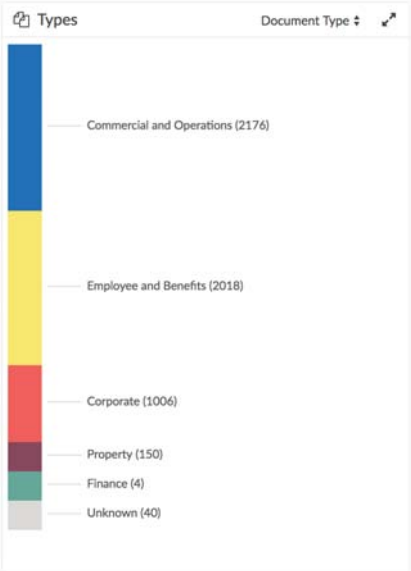
Luminance's administrative dashboard helps teams stay on top of a project, with real-time information on task size, a complete audit of time spent on specific contracts, by each lawyer, and which documents are pending review or need to be assigned.

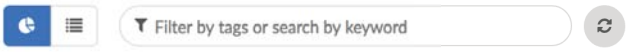
LIVE TAGGING

Using true machine learning, Luminance enables interactive clause identification. The technology learns what matters to the lawyers and their client in order to surface the most relevant details and potential unknown unknowns.

Insight Visualise







Dynamically filter your documentation

The most powerful search functionality on the market allows users to dive straight into their documents and ensure the most rigorous review.

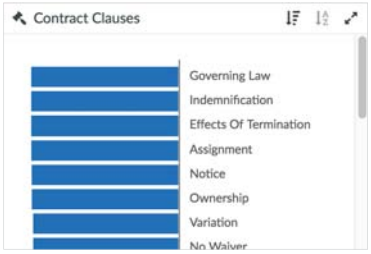
Categorise the entire project

Document types are recognised and colour coded accordingly, allowing for immediate insight into the nature of the document set.

Luminance
DILIGENCE

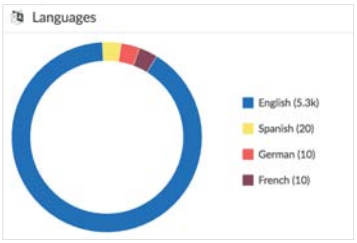
Collaborate across the world

Intuitive and powerful collaborative tools empower users to work across teams, offices, countries and continents.



Live tagging

Luminance determines clause types from the outset, immediately allowing comparison at a clause level.



Work in any language

Luminance is language-agnostic, and advanced algorithms can detect the patterns in any language or jurisdiction.

Expose anomalies

Proprietary pattern-recognition technology can detect 'unknown unknowns' – anomalies you may not have even been looking for.

Gain a global understanding

Regional activity and governing law is geographically displayed, demonstrating the geographic spread of the contracts and alerting users to surprise areas that may pose risk.

Cluster contracts for a complete understanding

Cutting-edge spatial clustering capabilities allow the user to see the complete data room in a new way, immediately demonstrating trends in the documentation.

LUMINANCE DILIGENCE

Capabilities

Speed

Luminance is the only solution to deliver value as soon as it is deployed, with lawyers proven to work 100% faster the very first time they use the platform. Machine learning means our clients often complete their review up to 1,000% faster as Luminance learns what is important to them, without requiring them to relinquish any of their control.

Every hour spent manually reviewing and marking up documents is an hour not spent analysing the facts and advising the client. Luminance Diligence understands language the way humans do, in volumes and at speeds that humans will never achieve, and it can instantly find patterns and correlations in data that would take lawyers weeks to uncover alone.

From 79 documents reviewed per hour to 3,600 documents reviewed per hour

M&A due diligence review, January 2019

Bird & Bird

Germany

Confidence

From a missing page or clause to a minor difference in wording, Luminance empowers lawyers with a comprehensive understanding of any project.

Advanced pattern algorithms can flag 'unknown unknowns', anomalies that would be impossible to predict – within the data, guiding the lawyer to review these potential problems. Using Luminance, lawyers can conduct a meticulous review with the utmost confidence that nothing has been missed.

After just 15 hours, key findings that collapsed the deal were communicated to the client, avoiding a potentially risky deal.

M&A due diligence review, October 2018

Flexibility

Powerful machine learning allows Luminance to learn the nuances of a legal team, ultimately becoming a bespoke tool for any firm. With every document, Luminance reads, understands and learns from the interaction with the lawyer. Users are able to guide this process through tagging examples of clauses, carrying out the supervised machine learning across the project.

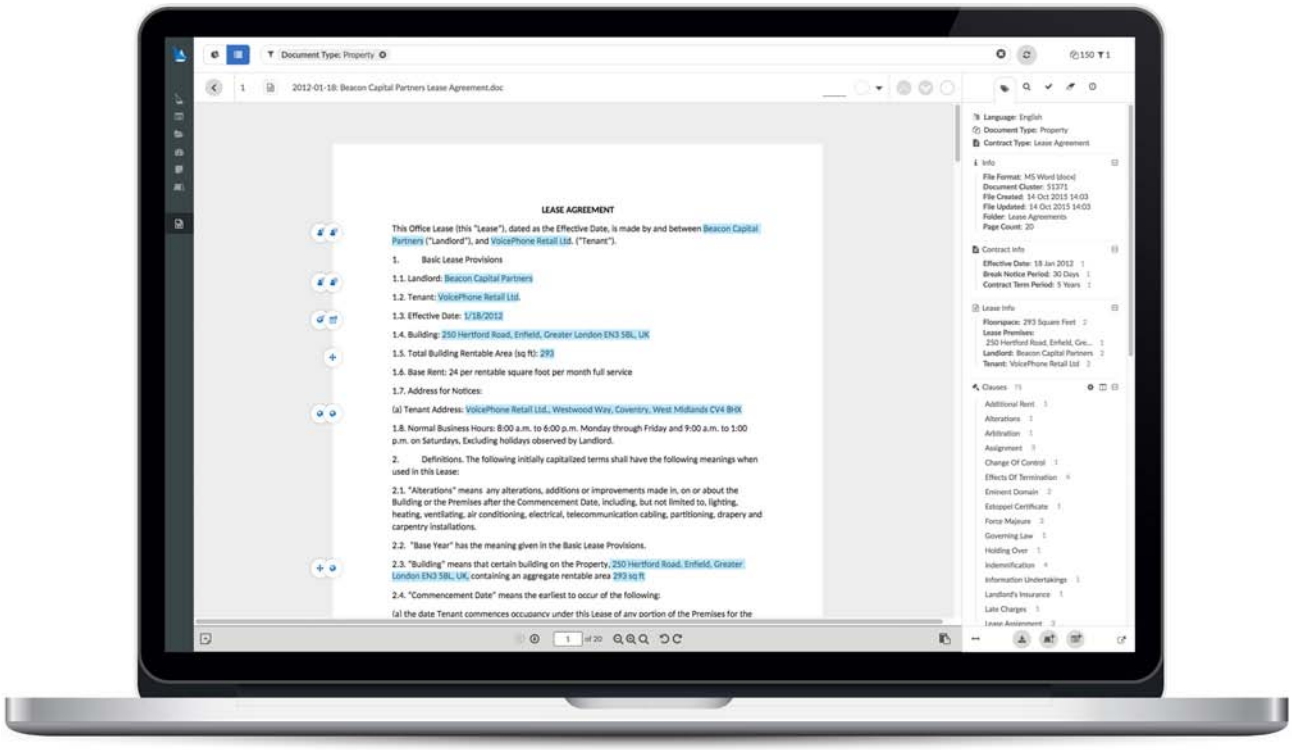
This is the first pattern recognition technology, making it language and jurisdiction agnostic, so we are able to support lawyers and their clients with any project, anywhere in the world.

40% of customers working in non-English

March 2019

LUMINANCE DILIGENCE FOR

Property lease review



Luminance Diligence transforms the process of lease review through an instant, dynamic and comprehensive understanding of a portfolio. Leveraging Luminance's market-leading Legal Inference Transformation Engine, lawyers are able to accelerate and streamline lease review whilst achieving a greater understanding of the entire data set. The Visualise screen provides lawyers with a global analysis of a portfolio, highlighting any areas of interest or risk that can be missed during manual review, meaning legal teams are able to predict and protect the value of the assets in the most effective way.

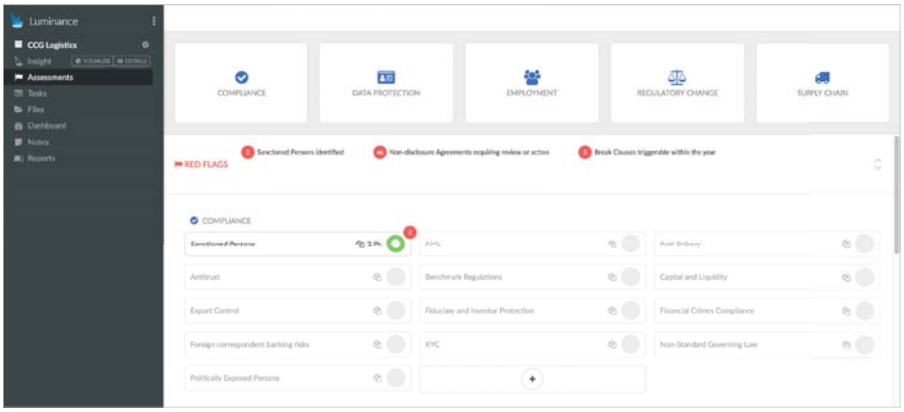
From at least 1 hour per lease manually

To 5-10 minutes per lease in Luminance

LUMINANCE DILIGENCE FOR

Repapering

Luminance Diligence enables lawyers to focus and streamline reviews into even the most complex and convoluted exposure analysis, either for regulatory or commercial reasons. Whether Luminance has tackled a certain regulatory challenge before or not, the system can provide time savings of up to 85% on the first day of review by intelligently determining how each individual clause deviates from the model example.

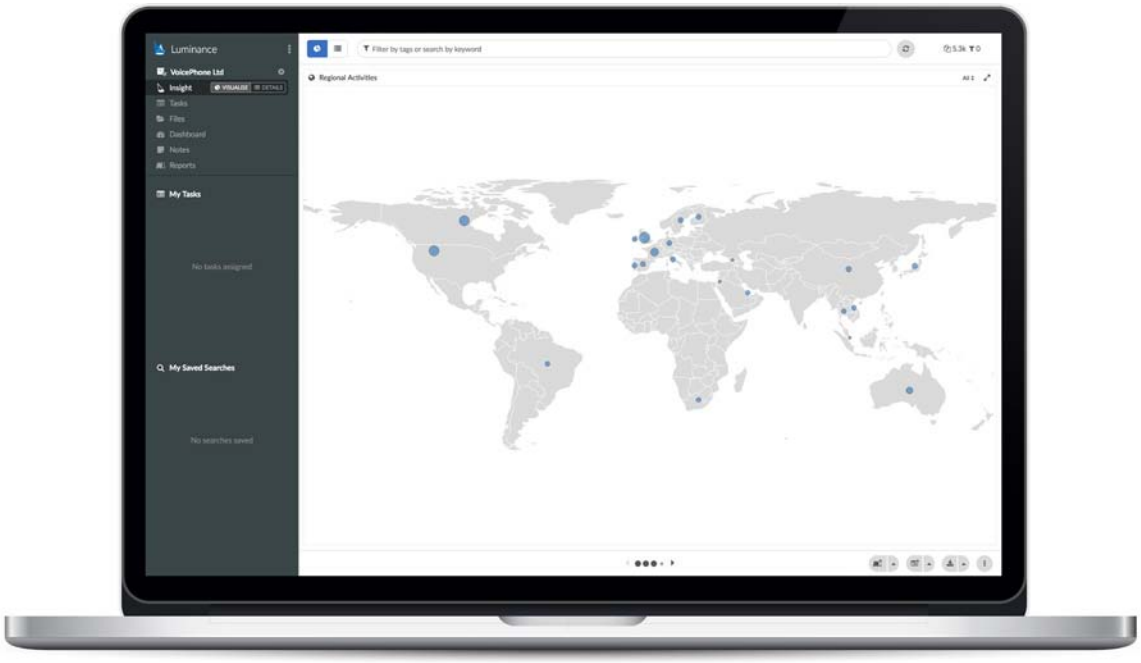


Lawyers can launch an investigation into a number of any contractual risk or regulatory change, and create their own as new challenges arise or when a client requires urgent assistance.

Users are able to see all standards, deviations and anomalies throughout an organisation in an intuitive and visual display, and set their own percentage threshold for what is acceptable and what needs a closer look.

LUMINANCE DILIGENCE FOR

Insurance underwriting



For the first time, insurance underwriters are able to leverage machine learning technology to gain unmatched insight into a due diligence review. When conducting representation and warranty or warranty and indemnity insurance, underwriters are often working to aggressively tight timescales, with as little as one or two days to review a multi-lingual data room containing thousands of documents. As a result, insurers are forced to rely on sampling which inevitably increases the possibility of missing key information and potential risks associated with underwriting the legal advice given to the client. Moreover, underwriters cannot afford to re-do the diligence exercise. Instead, they need an advanced tool that can identify red flags quickly and help to inform the price they set.

Luminance Diligence offers a flexible solution for underwriters, with the Visualise screen providing an instant snapshot into a set of documents, irrespective of volume, language or jurisdiction. The technology immediately identifies any unknown unknowns within a document set that the lawyers might have missed, allowing underwriters to focus their review on just a few anomalous and potentially risky documents. In doing so, they can easily quality-check the exercise and determine the price at which they are willing to take on the risk of underwriting the due diligence.

For example, Luminance's Regional Activities screen allows underwriters to quickly see whether any contracts are governed under jurisdictions that were not picked up during diligence.

"The team reported that this insight and control over the project gave the user greater confidence to underwrite throughout, in comparison to a manual review. Thousands of documents could be understood at speeds beyond human capacity."

Global insurance company

M&A DUE DILIGENCE CASE STUDY

Bird & Bird

In December 2018, the Düsseldorf office of leading international law firm Bird & Bird, took on a high-volume due diligence exercise concerning the employment contracts of a subsidiary company the client was looking to sell. The goal was to understand the relative risks associated with the employment contracts to allow the company to be sold at its most competitive price.

The employment team were faced with a detailed review of contracts for almost 20,000 employees, totalling close to 200,000 documents which needed to be analysed and categorised within a very tight deadline. Without the assistance of Luminance, it would not have been possible for Bird & Bird to deliver the same quality of work as it would have been too time-consuming for the legal team, and too expensive for the client to conduct the review manually. Previously, the firm and their client had relied on sampling just 10% of the document set, as a consequence lowering the value of the company due to the risk.

Faced with an unreasonable resource requirement and an imminent external deadline and having tried unsuccessfully with legacy providers previously, the Partner and the Associate, realised that Luminance's technology was required. While other legacy technologies typically require lengthy customisation and months of integration work, Bird & Bird's lawyers were able to get up and running with Luminance in just a few hours. The team uploaded 80GB (over a million pages) of documents overnight and were able to gain rapid insight into the contracts.

Despite this being the first time the German office had used Luminance and the first time the firm's instance had been exposed to German language documents, the technology's powerful machine learning meant that Bird & Bird could immediately identify any hidden anomalies or risks within the data set. Moreover, it was essential for the team to adapt the search as they went. Whilst technologies that require lawyers to know exactly what they are looking for beforehand couldn't address this need, Luminance's ability to surface 'unknown unknowns' through finding results by their semantic similarities was essential during this review.

The result

Through manual review, it took eight associates 3 weeks to review 10% of the documents relating to 1,900 employees. After a prior test phase of two weeks, with Luminance, it took two associates 3 weeks to review 100% of the documents relating to nearly 20,000 employees.

Not only did the team get unmatched time savings in their review, but by using Luminance, Bird & Bird were able to keep the work within the firm, with specialists who knew the client and the specifics of German employment law. In doing so, Luminance enabled the team to save time whilst ensuring even greater confidence in their results.

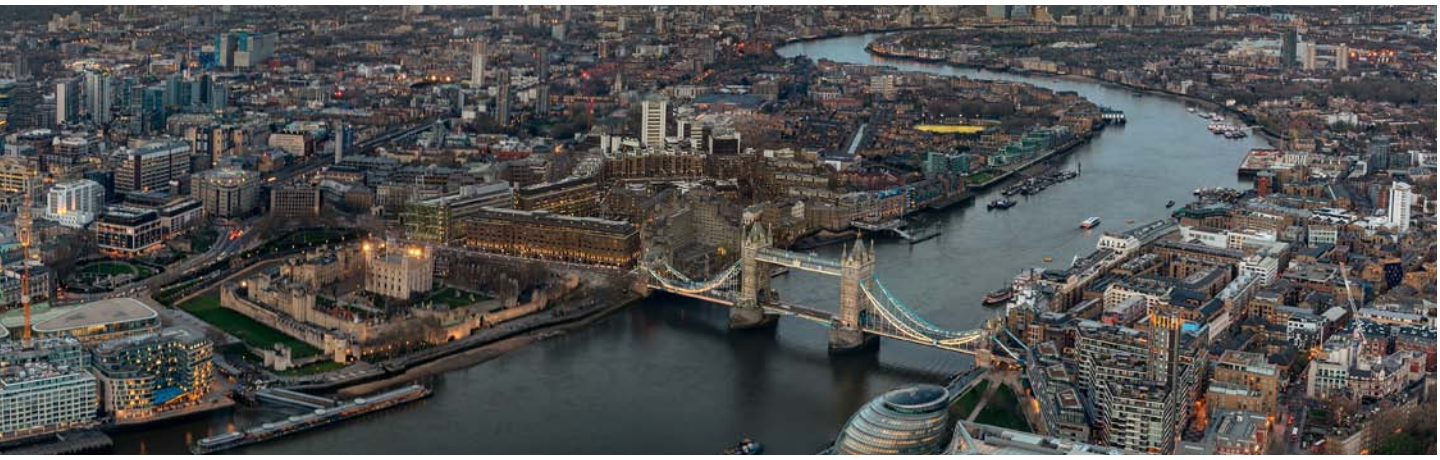
The firm was then able to deliver these vastly improved results on time to the client, with greater assurance that nothing had been missed, delighting the client and allowing them to push for a more competitive price. As a result, the client has approached Bird & Bird for further analysis of its employment contract data set.

Luminance will now transfer the learning amassed in this project to any further reviews conducted by the firm globally, with the technology only improving with each use. Bird & Bird has rolled out Luminance across its global offices and continues to use it in M&A due diligence, compliance reviews, lease abstraction and more.

In manual review each lawyer got through 16 employees' documents per day. Using Luminance, each lawyer could review 692 employees' documents per day.

CASE STUDY

M&A due diligence



In February 2019, a Global Top 100 law firm deployed Luminance's machine learning technology to conduct a high-pressured M&A due diligence exercise. Their project concerned a live deal for a client on the proposed acquisition of a competitor organisation. The competitive nature of the bid meant that the deal was on a very aggressive timescale and the target was trying to maximise the value of the business and drive the highest price they could. The firm needed a solution that could be implemented efficiently, was easy-to-use and capable of providing immediate insight into the data room, all with the confidence that nothing had been missed.

Two partners in the firm, both of whom had an intimate understanding of the organisation and act as trusted advisors in all of its big business decisions, were assigned to the deal. The partners allocated 165 hours to the entire due diligence exercise and originally decided to only take a sample of the documents as there was no way they could review the entire data set in the timescale they had been set.

The data room was opened just before midnight in a bid to reduce the opportunity for the buyer to dig around and find potential issues. The organisation was a subscription based service, and therefore the nature of their subscriptions following any change in ownership of the company was essential to investigate.

On the first morning of the review, one of the partners quickly noticed that some of the target's 900 customer contracts did not have any automatic renewal clauses. Concerned by this, the lawyers used Luminance to conduct a 20-minute review of all the documents in the data room to identify with complete confidence that only 30% of the contracts contained automatic renewal clauses in any form, meaning the business could lose more than half of its customer base in less than a year. These 'Autorenewal' clauses were subtle and contained many variations in wording, so could have easily been missed during a manual review due to human error or from the restrictions of keyword search. The very next day, talks broke down during a meeting with the target largely due to this misrepresentation, which made the company significantly less valuable than the price on the table. With Luminance, the lawyers were able to deliver key findings to the client within 15 hours, representing at least a 70% time saving in the first use, just hours after being deployed. Not only did the team save time, but they were able to deliver rigorous and decisive advice to their client, confident that nothing in the review had been missed.

CASE STUDY

Representations and warranties

A Global Insurance Company was looking for a technological solution to improve confidence and accelerate the process of conducting warranty and indemnity insurance. Luminance was chosen by the insurer due to the flexibility of the machine learning algorithms that makes it the first technology able to work with the tight timescale,s and broad scope of these reviews. Luminance's ability to work in any language was instrumental in this decision, as the teams consistently deal with data rooms in multiple languages and require a technology that can provide value regardless of the jurisdiction, language or specialisms of a data room.
The intuitive, user-friendly interface was also essential in ensuring users could get an instant snapshot of a set of documents just minutes after upload.

On this particular transaction, an underwriter had less than two days to review thousands of documents for an M&A deal. The review was being conducted under a short transaction timeline, as the client was negotiating a sale agreement where a warranty related to the number of contracts contained a 'Change of Control' clause.

The Warranties and Indemnities team could tell the scope of the review was limited to a sample of the contracts by looking at the due diligence report. Despite being an accepted process, sampling inevitably opens up the possibility of the legal team missing key information, increasing the risk associated with underwriting the legal advice given to the client.

A senior employee pointed out that a significant legal threat to the deal, associated with sampling, was the possibility of a breach of warranty. If the sellers did not specifically disclose all instances of a 'Change of Control' clause, and the buyer failed to conduct diligence on all contracts, the resulting uncertainty could lead to the discovery of evidence contrary to the legal advice given, and therefore a weighty pay-out to the law firm by the Insurance Company. Upon opening Luminance after upload, the team could immediately view every contract containing a 'Change of Control' clause using Luminance's advanced pattern recognition and clustering capabilities, then distinguish which contracts had already been reviewed and filter those out so as not to duplicate work.

The team reported that this insight and control over the project gave the user greater confidence to underwrite throughout, in comparison to a manual review. Thousands of documents could be understood at speeds beyond human capacity.

As a result of using Luminance in this case, the Insurer is now rolling Luminance out across the organisation. They are expanding their deployment of Luminance's products, and will be using the technology for policy wording comparisons within the W&I teams, and NDA review, due to their confidence in the abilities of the technology.

LEASE PORTFOLIO REVIEW CASE STUDY

PENNINGTONS MANCHES COOPER

Penningtons Manches Cooper is a leading UK and international law firm with 141 partners and over 850 people in total. The firm's main areas of practice are dispute resolution, corporate and commercial, real estate, private client and family. The firm chose to deploy Luminance to review a set of leases that were related to a major development in central London. The development was situated near a number of major landmarks, and therefore it was essential for the team to review a number of leases to assess the access rights of surrounding properties.

They were tasked with advising on any leases that could frustrate or prohibit the work that was being carried out. The real estate team had around a week to form a view on around 80 leases as they slowly filtered in over a few days. Using existing methods, two or three associates would review the documents by hand with post-it notes and highlighter pens, described as a 'painful task' but a number of members of the team.

The team began the review manually, taking around an hour to an hour and a half to read each lease. The prospect of reviewing the entire document set in a few days meant the team chose to deploy Luminance to supercharge the review. Using the technology, the experience of the associates was transformed; each lease took around 5 to 10 minutes to review.

In particular, the lawyers valued Luminance's advanced search functions and the ability to quickly click through and review all important information in a document. Within a couple days, the team had picked up on four leases which posed issues for the client and their development. One clear advantage was that they were able to go back and report on the entire set of leases at once, rather than being forced to give feedback as and when risks were found. The results placed the client in an excellent position for negotiation, able to respond in a rapid and informed way in negotiations.

From at least 1 hour per lease manually

To 5-10 minutes per lease in Luminance

"We are delighted to have found an AI solution that not only meets our contract review needs for real estate, but which we can use across our legal practice...we are impressed with the power of the machine learning technology."

Tarnya Mason,
Associate Director

PENNINGTONS MANCHES COOPER

About Luminance

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