Luminance

Artificial intelligence for the legal profession

Luminance
DISCOVERY

Product brochure

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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.
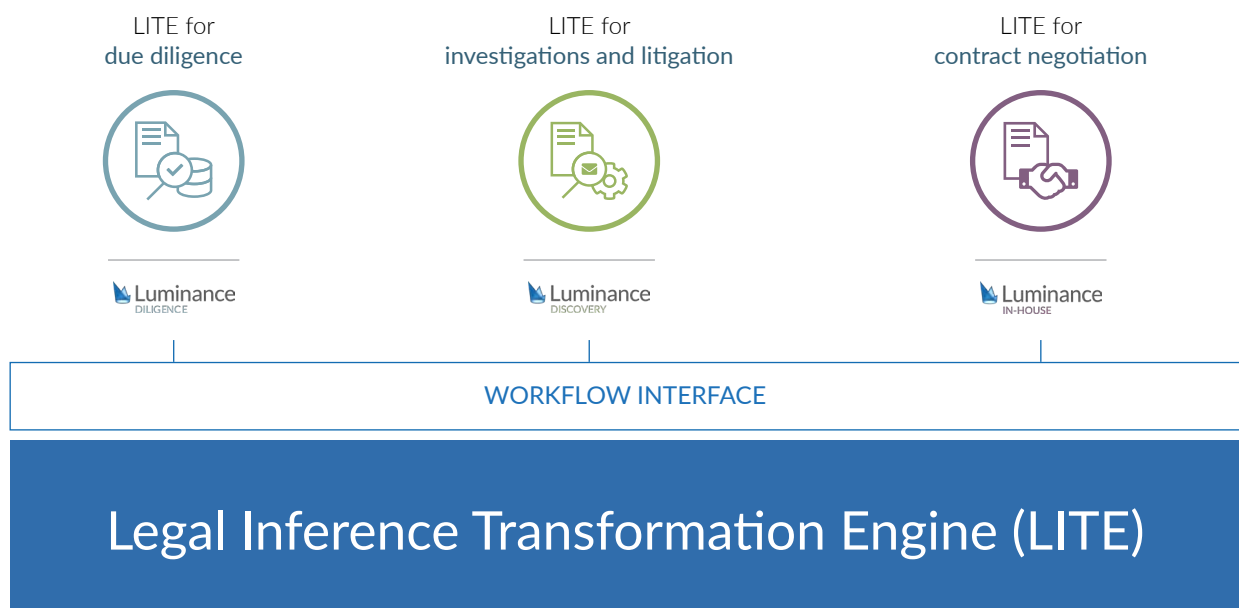
"**Technologies such as Luminance are the future...the changes occurring in the legal industry present an opportunity for the firm and our clients.**"
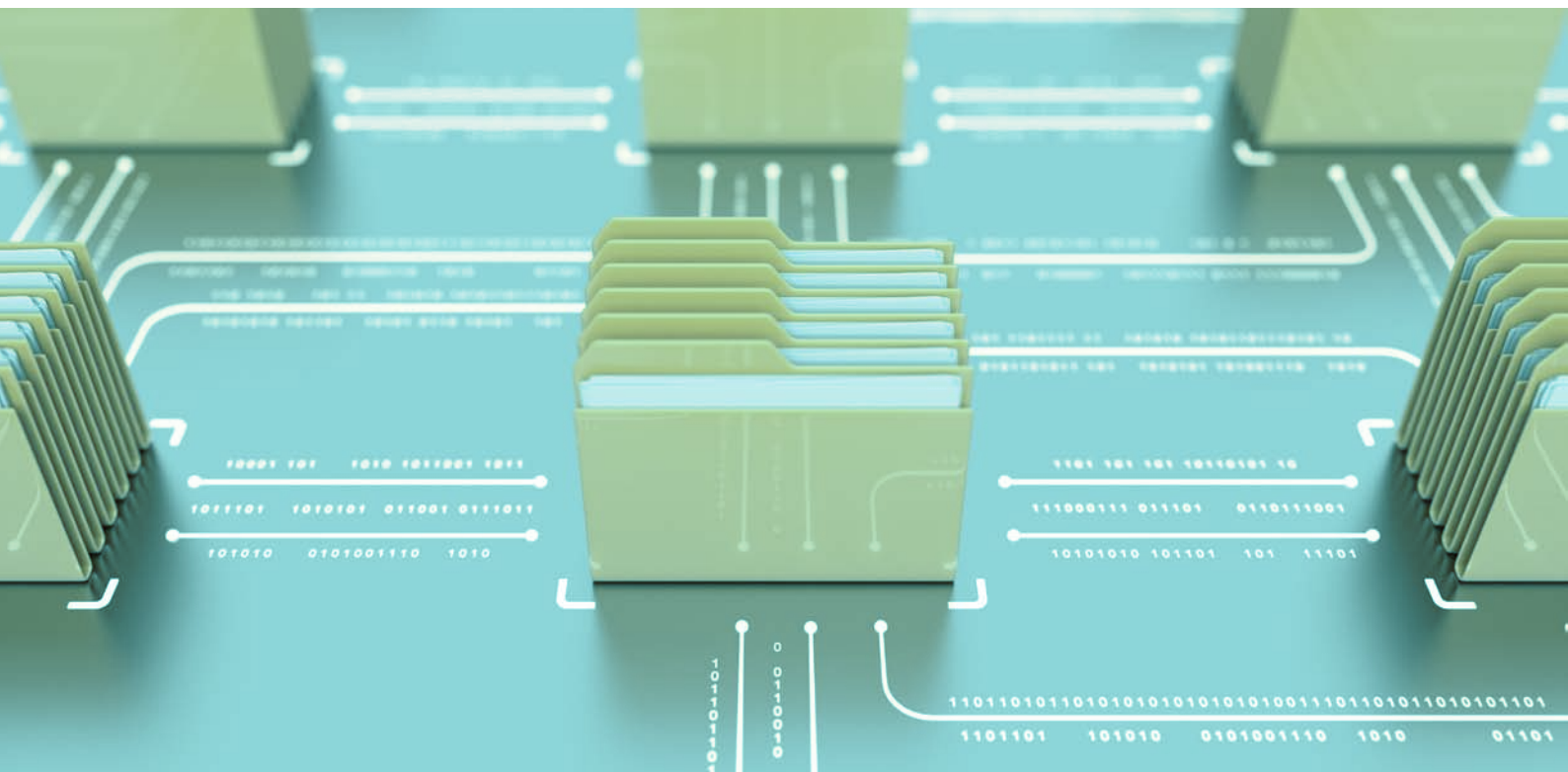
Steven Sonberg,
Managing Partner,

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.

LITE for
due diligence

LITE for
investigations and litigation

LITE for
contract negotiation

Luminance
DILIGENCE

Luminance
DISCOVERY

Luminance
IN-HOUSE

WORKFLOW INTERFACE

Legal Inference Transformation Engine (LITE)

Leveraging the technology advances of LITE, Luminance Discovery transforms processes such as eDiscovery, investigations, arbitration, disputes, DSARs and commercial litigation by finding patterns in the documents that the lawyer might not naturally have thought of. Until now, litigators have been forced to spend countless hours manually trawling through millions of documents to find relevant information in a data set, relying on service providers, teams of junior lawyers or clunky software to find critical information. However, these methods require lawyers to know exactly what to search for in advance and how to get to the answer.

Luminance Discovery's powerful machine learning algorithms identify clusters of related documents in multiple dimensions to expose relationships or connections in data that would be near impossible to anticipate. Huge volumes of data can be investigated and culled within seconds, meaning lawyers can focus on the relevant documents and get to the crux of the case quickly and without relying on preconceived notions. This not only means significant time-savings, but Luminance's easy-to-use interface is also developed with the aim of handing end-to-end control of the review back to the lawyers at the heart of the process, leaving more time for the advice that clients value.

The problem

eDiscovery is not a new problem.

The manual version of this process has been around for hundreds of years, and eDiscovery software has existed in various forms since before the turn of the millennium. However, over recent years, the eDiscovery industry has become stagnant, with a lack of innovation and overpriced solutions. The complexity of these solutions means lawyers have been forced to rely on service providers to assist them in managing large data sets, and this outsourcing of work comes with a myriad of problems including:

- **Opaque and excessive costs**

- **Long turnaround times on requests**

- **Inefficiencies in communication**

Whilst legacy eDiscovery tools have proved rigid, difficult-to-use and resource-intensive, technology is now at the point where it can make investigation simpler, presenting information to lawyers in an intuitive format, reducing the need for reliance on third parties and outsourced service providers, along with the inevitable loss of control and speed issues they bring.

The solution

Luminance Discovery applies award-winning technology to the eDiscovery software market, allowing users access to the latest in document processing and review software, at a transparent and affordable cost. What is more, the platform's intuitive interface means users can get started on a project in mere minutes.

Organisations are now dealing with data coming in from multiple jurisdictions in unprecedented volumes, as companies plumb their archives to comply with their legal obligations.

Luminance Discovery's language agnostic algorithms and rapid, easy-to-use interface were built to excel in dealing with these problems, and by making the platform self-serve, lawyers are able to keep complete control over the process and seek assistance from third parties on their own terms.

Luminance Discovery brings an intuitive and streamlined experience, with instant improvements in workflow efficiency for legal teams. The full spectrum of functionality, from the simple and practical such as metadata filtering, to the most advanced Technology Assisted Review software in Deep Coding, is included in a single pay-as-you go fee for access to everything users might need.

Early Case Assessment
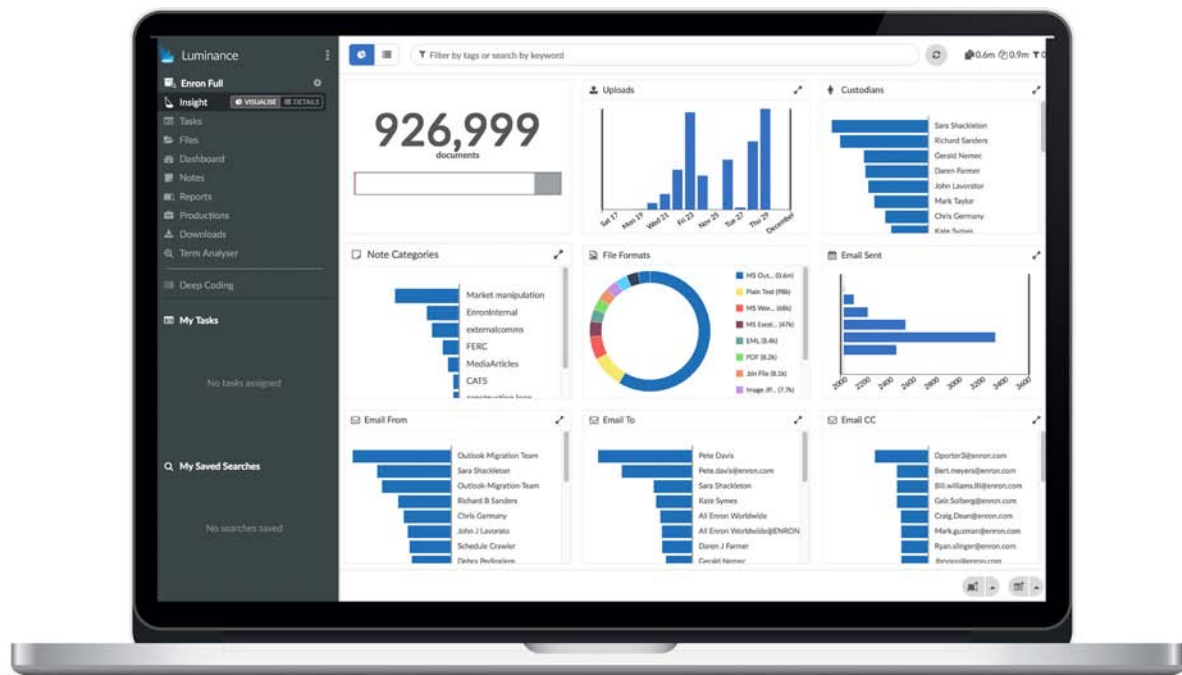
Luminance Discovery makes Early Case Assessment simpler than ever before. Luminance is a next-generation self-serve eDiscovery application, allowing lawyers to complete every part of the eDiscovery process from processing to production, reducing reliance on costly service providers and strain on internal resources. Powerful and intuitive data visualisation means lawyers can quickly gain insight and assess a case, cutting through vast quantities of documents to get to the crux of the issue as quickly as possible. Lightning fast search and filter functions help lawyers find responsive data without the need for training. Within seconds, users can bulk code large portions of the document set in order to focus on relevant issues.

> "Using Luminance Discovery helped us get the necessary documents out the door in a time we never thought possible, while keeping that confidence we had complied with our legal obligations."
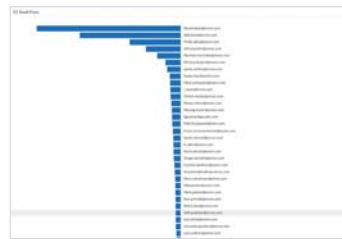>
> Lead Luminance User

Visualise
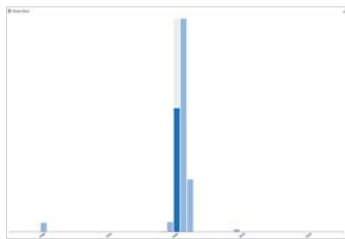
**Cycle through
time periods**

Instantly interrogate a discrete
time period within the data set
helping you precisely filter the data
even down to the minute.

**Intuitively understands
relationships dynamics**

Understand communication
networks filtering to or excluding
by sender, receiver or any other
individuals within an email thread.
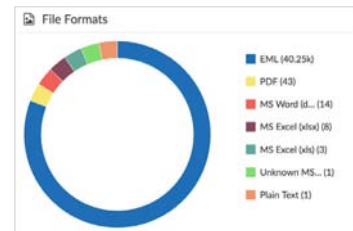
**Narrow down data sets
by format**

Immediately exclude unnecessary
data including system files through
deNISTing, filter to specific file
types and exclude duplicate data.

Term Analyser
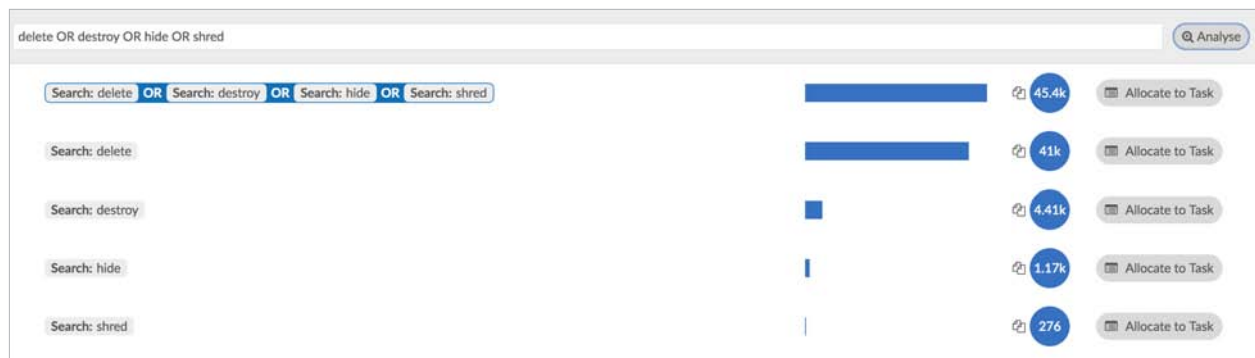
Luminance's Term Analyser provides instant hit counts across the entire data set. Lawyers can now easily see over and under-inclusive search terms which would be effective in negotiating with other parties and identify the most efficient way to filter across a document set, helping to build a picture of the case and how the review should progress. This marks a new era where lawyers no longer have to wait hours for responses on hit counts, empowering them to feedback within minutes of seeing the data for the first time.

Investigations, Arbitration and Litigation

Luminance allows users to complete a variety of investigations and reviews from several hundred documents to tens of millions. Luminance's advanced clustering, filtering and workflow tools allows lawyers to quickly find patterns in the data and areas of interest for review. Leveraging LITE, Discovery's clustering feature groups documents by a variety of fields to expose patterns in the data which may previously have gone unnoticed. Tasks can be allocated to reviewers within Luminance with easy-to-use project management controls to reduced admin time and track progress.
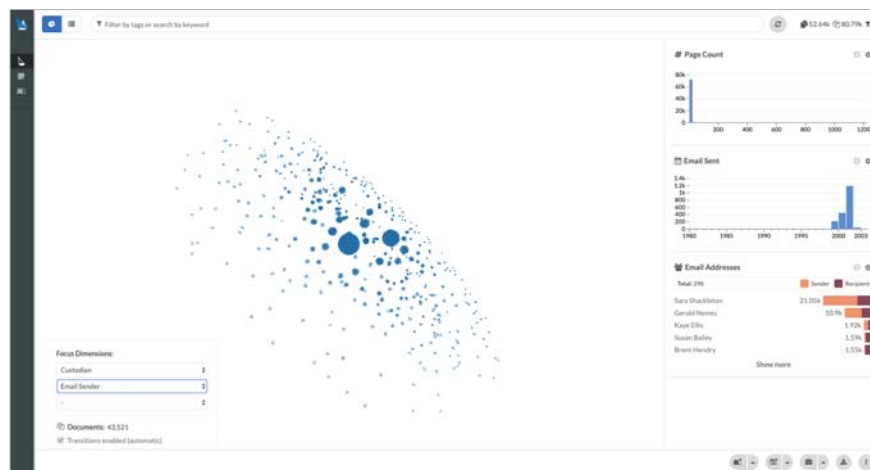

Reviewers can examine discreet data fields to see clusters of related documents in multiple dimensions and expose relationships in the data, for example the intersection of email sender and time periods.
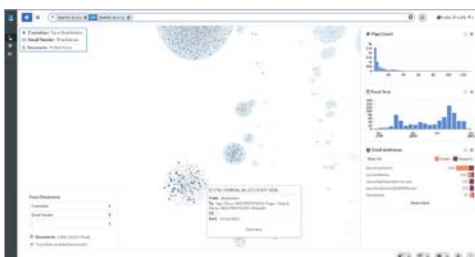
Lawyers can easily explore clusters of documents to see further detail and examine the connections more closely. From here, lawyers can focus in microscopic detail on particular documents of interest and begin reviewing and coding documents.

Comprehensive review tools including task assignment, coding and redaction and project management features enable lawyers to move seamlessly between the stages of review, from Early Case Assessment to the end of the matter..
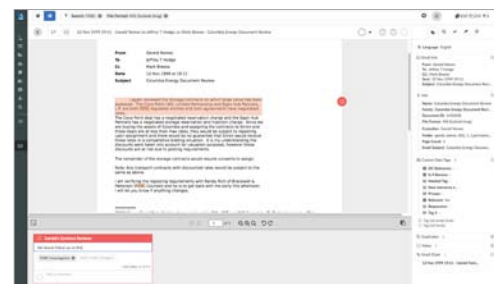
Deep Coding

Luminance provides a Continuous Active Learning system, Deep Coding. As the lawyer completes their review in their normal workflow, Luminance learns in the background, with no set up involved. Deep Coding provides insight from day one. With the flexibility to choose Technology Assisted Review to inform quality control or automatic coding, the control is in the hands of the review team. Deep Coding represents a revolution in machine learning to enable lawyers to find the needle in the haystack and prioritise the review around the most relevant data.
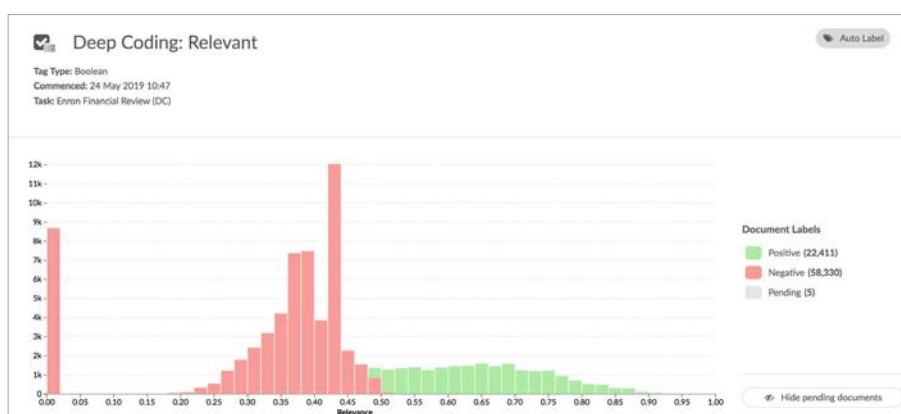
Learning from the lawyer's own expertise, the machine learning works seamlessly in the background to understand the coding of the documents, enabling lawyers to review batches of documents that are most likely to be relevant. With the ability to see the corpus of document according to relevance, the most important information can be reviewed as early as possible. Deep Coding provides intuitive visualisation and accessible tools to see how the machine learning is progressing and make informed decisions on how to utilise its capabilities most effectively.

Deep Coding heatmap
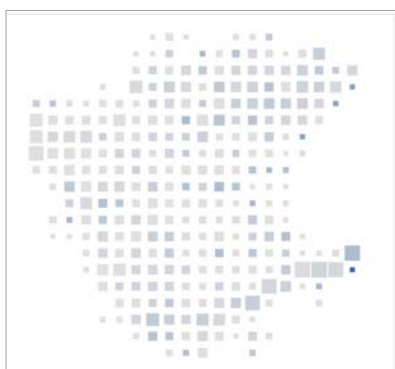
With unprecedented oversight of the entire document set, the heatmap provides a visual representation of the coverage of the review. This unparalleled insight means you can immediately see unexplored regions of the data set and provides comfort that a balanced review has taken place with no stone left unturned.

"Luminance Discovery is an incredibly powerful, user-friendly and intuitive tool. Quick searching functionality throughout the entire dataset and within documents was particularly useful when redacting information such as names and was used to Bulk Review documents at speed."

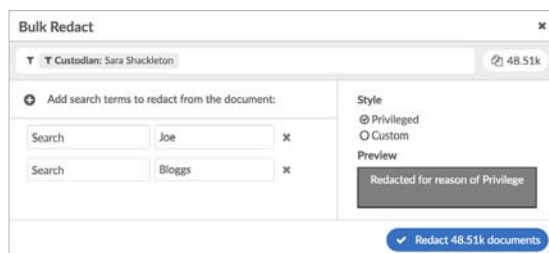**Luminance user**
Multinational law firm

Data Subject Access Requests

With a global rise in high pressure, short turn-around personal data reviews like Data Subject Access Requests, organisations are under pressure to reduce cost and to ensure compliance with more stringent information obligations. Luminance Discovery has been a vital resource for organisations faced with the challenges of completing DSARs with limited resources and complex parameters. Providing value on both small and large-scale reviews, Luminance's functionality and commercial model answers these demands.
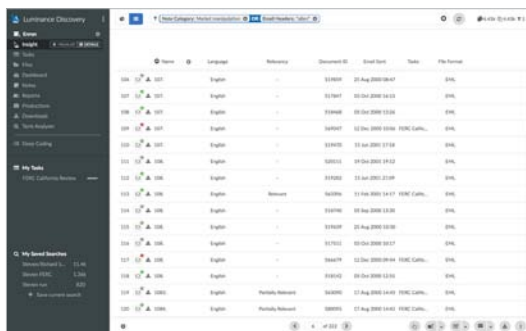
Discovery enables organisations to complete reviews effectively and economically. Reviewers have a wide array of tools at their disposal to search, filter and narrow down to subsets of responsive data. Tasks can be allocated to internal or external reviewers, with a variety of real-time progress reporting tools including time tracking.

With tools to make finding personal information easier, Luminance also streamlines redactions across the entire data set. From customisable pre-set redaction formats, to bulk redacting words and phrases across millions of documents at the click of a button, users have a comprehensive set of redaction tools to expedite this time-intensive process.

Taking the stress and complexity out of producing documents with a deadline looming, Luminance allows lawyers to produce documents to a range of standards in seconds and without needing to wait for service providers. All the tools needed for review are in a single, intuitive application.

Capabilities

INSIGHT

Luminance Discovery is powered by cutting-edge technology, devised by some of the world's foremost machine learning experts to enable the most rigorous eDiscovery analysis possible. The platform gives users unparalleled insight into the entire project and the complex relationships within the data. The most powerful search functionality on the market means Luminance minimises the risk of vital information being missed and maximises opportunity to find exactly what you may be looking for.

COLLABORATE

Collaborate more effectively than ever before, regardless of whether a team is working out of one office or globally. Insight and management features help streamline a review and broaden or narrow findings instantly. Project managers can assign tasks, track the progress of the entire team and access progress information in real-time. With the power to speed up review and manage teams more efficiently, users spend less time on administration and can instead focus on higher value tasks.

MONITOR

Luminance Discovery offers full visibility into an entire project, clearly displaying all search terms, applied filters, responsive hits and metadata within its interactive interface. Luminance also offers a complete audit trail on all documents uploaded and reviewed, as well as automatically generated and fully customisable reports.

UNDERSTAND

Despite Luminance Discovery's array of incredibly powerful functionality, our software engineers have created a user interface optimised for users to use it with minimal training. Even tools such as Technology Assisted Review (Deep Coding) which were previously the domain of eDiscovery specialists, have been designed with ease-of-use in mind and can be picked up and understood in a very short time.

SECURITY

Luminance's cloud-based architecture means it can be accessed from anywhere as long as the user has credentials and an internet connection. At the same time, Luminance Discovery has been engineered with the highest security standards at every stage of the development process. The platform is robust and reliable with the highest level of encryption, making sure that everything, from document content and annotations through to metadata, is protected.

Benefits

User-driven

We built Luminance Discovery to put users back at the heart of document review. There is nothing more frustrating than being unable to complete work on a document review with a deadline looming, due to an outsourcing hold-up, or a clumsy, unreliable eDiscovery platform. Our software strides forward by allowing users to take over many of the tasks which would have previously required outsourcing or specialist training to complete. Not only does Luminance enable a more efficient way of working, it allows users full control over every aspect of their review and bring in third parties on their own terms.

Intuitive interface

Luminance Discovery brings a fresh approach to the market with a modern and intuitive interface, giving teams the tools to manage their review without the need for intensive training. Luminance Discovery is a simple and complete investigation aide, offering instant insight through powerful search tools and dynamic filtering, team management and document production capabilities. From processing to production, Luminance is helping lawyers at every step of their review and eliminating boundaries on who can use the platform, from IT support professionals to partners.

All-inclusive pricing

Cost-effectiveness and transparency are at the forefront of Luminance's design. Our tools and features are not segmented into countless costing models and prices but bundled together in an all-inclusive fee structure so teams can use the platform in its entirety without worrying about affecting costs at the end of the day. All of this comes together to make Luminance Discovery the most cost-effective and practical solution for document review.

Flexible deployment model

Luminance Discovery's powerful machine learning capabilities mean the technology can be deployed within minutes, with no customisation, set up or configuration and users are typically prepared to start their review in less than an hour. With both a SaaS and on-premise deployment model, Luminance Discovery offers a flexible and scalable solution for lawyers.

IP infringement

A mid-sized law firm needed to review client data in relation to alleged intellectual property infringements. With a very tight review timeline to assess the information, the team decided to use Luminance's advanced technology to upload and process data at unmatched speeds in order to get to the review as fast as possible.

On day one, the team uploaded 35GB of data into Luminance, made up of tens of thousands of files consisting mostly of emails with their corresponding attachments. Luminance processed the data in a matter of hours and displayed all pertinent information on the unique, intuitive interface, giving the firm immediate insight into their data set and an understanding of the key people, time periods and relationships in the case.

The associate overseeing the review was able to easily create a coding panel and boundaries for the reviewers to work within, rapidly identifying and setting up 24 different issue codes. 30 minutes and one short training session later, the team began crafting complex layers of searches and filters to find results in record time.

Project managers assigned documents to reviewers through Luminance's workflow tools, proven to give around 95% time savings in work allocation alone. In Luminance, every user is automatically notified and can immediately begin work on their batch of documents. Unlike previous experiences with other services providers, where the team were forced to rely on unreliable lines of communication and endure agonising delays for results to be returned or queries to be answered, they retained control over the review at all times.

Luminance helped the team dynamically update their review processes as new information came to light. The project manager monitored the review in real time through the project dashboard and the team created regular reports in Luminance in order to redirect efforts where necessary and keep the client updated. The firm were confident they conducted the review process in the most collaborative and transparent way possible.
The production generator meant the team could easily adhere to procedural rules. Whilst waiting for follow-up queries, the team were able to archive the data in Luminance, reducing costs whilst retaining the ability to activate the data for further review at any time.
The firm agreed that they would not have been able to get results in such a simple, efficient, and collaborative way without Luminance Discovery. Vitally, the technology reduced the time spent on costly administrative tasks, allowing the team to get faster results and more meaningful insight for their clients.

DSAR

A multinational law firm received instruction in a Data Subject Access Request (DSAR). Already being Luminance Diligence customers, the team decided to use Luminance Discovery as part of their review process. Due to the extreme time pressures and the sensitive nature of the data associated with a DSAR, the team had a number of different requirements for their workflow.

The firm was able to set up their workflow and begin review within a day of after upload and ingestion. Days later, some additional encrypted data from a range of sources was uploaded and processed at Luminance's data processing centre.

Duplicated data was identified and able to be excluded from review from the outset, saving valuable time and work effort. Through Luminance's 'TaskSync' function, tasks can be automatically assigned based on predefined criteria on previous tasks to save on admin time. These workflows were created prior to the start of the review, and used to great effect throughout the review. Whilst working towards extremely tight deadlines, the collaborative functions of Luminance enabled the review to be completed by a small team with no previous experience with Luminance Discovery. The overseeing associate assigned each user keyword-responsive documents, reviewers then further refined the document set,

focusing firstly on relevancy and confidentiality. The users were able to make use of Luminance's flexible workflow tools, reviewing documents both individually and in bulk. As can sometimes be the case, the firm's instructions were altered throughout the review, and the team were required to adjust to these fresh directions. Luminance Discovery was flexible and intuitive enough to adapt to these changing aims while meeting the tight deadlines of the case. In preparing for document production, the team used Luminance's inline redaction tools to redact necessary information, redactions which were then easily implemented in the productions themselves. In addition, the firm decided to use Luminance's varied permission levels to release documents to the client while maintain privacy over their work product. This operated as a real-time updated system throughout the review and a check on work product prior to production.

The firm emphasised that they would not have been able to achieve the same results in such a quick, efficient, and cost-effective way without Luminance Discovery. Luminance was intuitive enough for a small team to immediately begin their workflow with only a short orientation period. Vitally, the flexibility of the technology enabled the review to be continually adapted to changing needs without re-training or additional work effort.

Arbitration

A multinational Swedish law firm received instruction on an arbitration matter. Already being Luminance Diligence users, the team decided to use Luminance Discovery as part of their review process. They had a number of different considerations at a delicate procedural stage of the arbitration and wanted to alleviate the manual review process in order to focus on advising the client. Starting from their referral, it took less than a week to provide onsite training to the team, guide the associate running the review through the data upload and fully process over 300 GB of data. Over the following weeks, this number grew to over 650 GB.

The first stage of the review, which would typically have been completed by a team of lawyers and paralegals, was able to be conducted by a single associate using targeted searches to exclude privileged content from the review, in a dataset of almost 1.8 million documents.

The review then turned to those emails which did not attract legal privilege. After consultation with the other side and an explanation of Luminance's capabilities, the firm decided to go beyond a traditional review process and use the Discovery technology to engage in a more collaborative approach with opposing counsel.

The firm released all non-privileged documents into a secure workspace with customised permission levels; their opposing counterparts were then able to conduct a review of non-privileged documents and work collaboratively with their own lawyers to decide which ones to produce at the end of the review process.

Once productions were run, the team decided to archive their data in order to minimise ongoing cost, ready to unarchive and refer back to at a moment's notice if necessary. The team emphasised that they would not have been able to achieve the same results in such a simple, efficient, and cost-effective way without Luminance Discovery. Vitally, the technology reduced time spent on reviewing by enabling rapid culling of the data based on the powerful searching, filtering and tagging functions. This enabled the team to get results faster and feedback key insights to the client more quickly - all within their first experience using Luminance Discovery.

Competition law investigation

In March 2019, the client of a mid-sized law firm received a request for a massive number of documents in relation to alleged competition violations, a data set spanning several years and hundreds of custodians. The team projected the review would take months to complete using existing methods. Luminance helped the team to complete the project in less than a month whilst using considerably less resources. The total data uploaded came to a total of one terabyte, transferred to Luminance as it became available over the course of two weeks. This did not slow down the team's review, as Luminance's sophisticated upload system allowed the review to continue seamlessly alongside the upload. Luminance's collaborative workflow capabilities ensured the review was conducted in the most efficient way as there was no overlapping review being conducted on the vast tranche of documents.

As new documents were added, those that fit specific review criteria were automatically assigned to the correct reviewer through conditions established in the 'Tasks' functionality.

Insights and findings were shared immediately through Luminance's reporting and notes, enabling project managers to effectively direct the review and create custom reporting templates to pick out the most relevant information to share with the client.

At the closing stages of the review, the team easily brought their findings together and produced the relevant documents in a way that complied with the original request. Through Luminance's file format options, simple productions templates and meticulous audit trail showing all the previously produced documents, a usually painful process was turned into something incredibly simple and efficient. Previous experience with eDiscovery software had lowered the team's expectations as to what such software was capable of, with clunky systems that often failed at the most crucial moments in a review process. In contrast, Luminance's speed and reliability was a 'revelation', and delivered 40% time savings in comparison to their initial estimates; an optimal result for all the stakeholders and a key reason the firm chose Luminance to deploy on an ongoing basis for future matters.

Andrew Haslam

Andrew Haslam

eDisclosure Project Manager
Squire Patton Boggs

Andrew joined Squire Patton Boggs in 2016 as an eDisclosure Project Manager in the London office. Mr. Haslam, formerly of Allvision Consulting which he founded in 1997, is a specialist in the field of eDisclosure and is well known throughout the UK eDisclosure community. Mr. Haslam has nearly 20 years' experience in eDisclosure matters and the technologies that support them, working on projects for law firms, clients and suppliers. He is a regular speaker at eDisclosure industry events and has written numerous white papers, op-ed pieces, and blog postings on eDisclosure issues. He is also known for his annual report on LegalTech and the Buyer's Guide to eDisclosure Systems.

Over the last five years, the eDiscovery marketplace has been maturing and consolidating. Notably, there has been a clear ratification that lawyers in this sphere should be expected to use computer-assisted review in order to get the best results for their clients.

With every development that enters the market, the entry standard for tools becomes even higher. Technologies, in order to compete, have to keep up with the rising tide of expected functionalities. With most providers largely demonstrating a similar set of basic functions, when considering technologies, we are increasingly looking at what analytics they provide in order to gain an advantage in this crowded field. Artificial intelligence solutions like **Luminance** are delivering on this end of the scale, and it's exciting to see intuitive tools that visualise vast quantities of data and help unearth key information in an entirely new way.

eDisclosure experts like myself will always be needed to provide insight and advice on how to utilise technology in order to get the best results, but the more lawyers can manipulate the tools they need, the better. It is clear that legal issues need to drive these investigations, not the requirements and restrictions of the technology. Focusing on the issues rather than onerous processes means the client's best interest is always front of mind. I always choose technology based on what the issues in the case are, and the location and type of data. The groundwork has been laid, but now comes the technology that can not only complete and expedite the job but make the user's life much easier.

It's all very well having 'whizzy tools' but it's important to find good technology that is fit for purpose and cost-effective. Providers shouldn't forget that small fixes can make huge differences, like mechanisms to minimise the risk of a redacted child being produced unredacted with the parent document, as these are the sorts of things that keep us up at night. Lawyers and eDisclosure experts need technology to keep in control of their review, which is increasingly difficult with the volumes of data we are working with today.

" Artificial intelligence solutions like Luminance are delivering on this end of the scale, and it's exciting to see intuitive tools that visualise vast quantities of data and help unearth key information in an entirely new way."

Andrew Haslam,
eDisclosure Project Manager

SQUIRE
PATTON BOGGS

About Luminance

Luminance is the leading artificial intelligence platform for the legal profession. 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. Luminance is used by law firms and in-house teams in over 43 countries around the world to improve processes such as due diligence, contract negotiation, regulatory compliance reviews, property portfolio analysis and eDiscovery. The company has offices in London, Cambridge, New York, Chicago and Singapore.

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