



Building a Business Case for AI

Exploring The Business Case for Adopting AI Technology



It is clear that the advent of machine learning technology for the legal industry brings with it significant opportunity, both for law firms and for their clients. With robust AI systems now able to read and form an understanding of vast swathes of documentation, the potential implications and benefits are hard to understate.

This whitepaper will study the financial advantages for firms who choose to adopt AI technology, with a particular focus on:

- **how Luminance customers have been able to dramatically reduce costs by up to 90% on each project they undertake;**
- **the ways that firms have structured costs internally;**
- **how firms have charged clients for projects completed with the assistance of Luminance;**
- **instances in which AI has demonstrably increased revenue and provided alternative income streams for Luminance's customers**



“Luminance’s technology allows lawyers to be the trusted advisors they trained to become.”

Steve Cooke, Senior Partner

SLAUGHTER AND MAY

This paper will also look at the benefits of adopting AI technology in less quantitative, but no less valuable, ways including:

- **examples of how embracing innovation has fostered stronger client-firm relationships: placing lawyers firmly back in their position as ‘trusted advisors’ armed with clear insights and able to provide clients with rapid insight into critical areas of risk or weakness**
- **the value that Luminance’s powerful, tried-and-tested AI technology can bring in terms of mitigating risk, ensuring compliance and protecting reputation**

In a world of increased data production, frequent regulatory change, and a challenging economic environment leading to staffing constraints and ever more cost-conscious clients, the value of AI for lawyers has never been clearer.

The financial rewards of AI technology adoption

Frequently, the value lawyers bring to a task is measured in hours. Fee estimates are usually based on billable hours, associates are incentivised on target hours, and even when a fixed fee is negotiated, the client often asks to understand the hours spent to justify the cost. Law firms can be highly profitable on this basis and historically this has been the norm. However, the exponential growth in data due to revolutions in computing, storage and internet connectivity mean that reviews encompassing all relevant documents would result in an astronomical fees for clients – a fact they have been unwilling to accept, and consequently clients have had to accept higher thresholds of risk than is ideal.



“Clients are demanding more for less.”

Mark Rigotti, CEO



AI technology to save lawyers time and cost

One of the primary reasons why law firms look to adopt any legal technology is for the potential cost savings. With AI-powered document review, firms can not only look to cut costs in terms of labour required on each project but also, because of the time savings Luminance generates, can actually maximise the value of their staff by redeploying them on additional projects that the firm would have otherwise not been able to undertake.

AI enables lawyers to deliver projects in full, in a shorter amount of time and with less staff. A Global Top 100 firm used Luminance Diligence to undertake a full review of employment contracts as well as a smaller sampling exercise. They achieved the following results:



FULL MANUAL REVIEW:

8 Associates, 30 weeks for 100% review. **Cost: \$888,000 (Associate salary)**



REVIEW WITH LUMINANCE:

2 Associates, 3 weeks, 100% review. Cost: \$22,200 (Associate salary) + c.\$60,000 (Technology): **Total cost: \$82,200**

Cost saving for a complete document review = c. 90% (or c. \$0.8 million)

Time saving for a complete document review = 234 associate weeks



TRADITIONAL SAMPLING:

8 Associates, 3 weeks for 10% review. **Cost: \$88,800 (Associate salary)**



REVIEW WITH LUMINANCE:

2 Associates, 3 weeks, 10% review. Cost: \$22,200 (Associate salary) + c.\$32,000 (Technology): **Total cost: \$54,200**

Cost saving for a sampled document review = 40%

Time saving for a complete document review = 18 associate weeks



As these results illustrate, using Luminance not only enables firms to reduce their headcount on each project, but the vast time savings that AI generates also means that lawyers are able to deliver their work product and advice to clients far more rapidly than with manual reviews. For example, Ricardo Reigada Pereira, Partner at the Portugal office of Big Four accounting firm, **EY**, notes that **“manually wading through huge quantities of contracts can consume considerable time and resource. Using Luminance, our firm will be able to drastically reduce review time, allowing for a more sophisticated, efficient approach to due diligence.”**

And it isn't simply larger organisations that can benefit from Luminance, as the recent results from boutique Italian law firm show:



“Luminance is at the leading edge of the legal sector’s digital transformation: a transformation that should improve legal services and access to justice and make lawyers’ work more enjoyable and valuable.”

Rosemary Martin, Group General Counsel



AI-powered document analysis is just as useful to litigators as for corporate lawyers, with these lawyers equally as able to achieve vast savings on time and cost during document review. **Norburg & Scherp** recently uploaded 500GB of data related to an upcoming litigation into the Luminance Discovery platform. Luminance assisted the team in rapidly culling over 80% of this data as irrelevant and allowed the firm to complete their eDiscovery project 10x faster than using manual methods. With Luminance helping the legal team to quickly eradicate the data that wasn't related to their case, Norburg & Scherp could devote an increased amount of time to analysing the documents that were pivotal to the matter at hand, in turn building the most thorough case possible for their client.

Dentons Middle East recently had an arbitration matter in which their client had informed the lawyers that the review would contain around 200-300 documents - this soon swelled to over 180,000 documents which needed to be reviewed in just two weeks!



FULL MANUAL REVIEW:

3 Associates, 12 weeks



REVIEW WITH LUMINANCE:

3 Associates, 2 weeks

**Time saving for a complete document review =
80% (30 associate weeks)**

Typically, in a manual review where datasets unexpectedly increase ahead of a tight deadline, firms might need to draft in another team of lawyers to assist in the review. Yet using Luminance, firms do not need to scramble to divert personnel – as is seen in the Dentons example, the firm did not need to increase the team of three review lawyers at any point. This saved the firm having to renegotiate a large increase in fees with their client and allowed the rest of the Dentons legal team to continue bringing in revenue across the firm's other matters.

AI assists lawyers in building their reputation as a firm that consistently delivers projects on time and on price. With clients knowing that they can trust the firm to complete their respective aspects of a matter to a deadline, this helps to generate repeat business from satisfied clients.

Using AI to take on additional projects and diversify revenue streams

The examples above show that by adopting Luminance, the staffing requirements on each project the firm undertakes can be dramatically reduced. With fewer lawyers required to work on each matter, the firm has extra resource which can be used to engage in additional projects that would have otherwise been unfeasible, or to diversify the firm's other revenue opportunities and services.

One top-tier Scottish firm has used Luminance on a number of Data Subject Access Requests (DSARs). Previously, DSARs were not profitable for the firm due to the amount of resource the firm needed to devote to each DSAR in order to fully comply with it, but using Luminance they are able to offer this service to their clients and generate a profit on it. Of course, as well as leading to significant revenue opportunities in and of itself, firms that offer an increased number of services in one place are far more likely to retain clients, thus helping the long-term financial health of the business, too. Luminance can be used to bring profitability to a range of legal processes that otherwise would simply not be commercially viable for firms. For instance, a UK Top 10 firm were asked by a client for a full review of 4000 documents looking for change of control clauses. A price estimate for manual methods was in the region of \$750k-\$900k. This was in excess of the figure the client could afford to pay, and so this project looked unlikely to go ahead. The firm were dedicated to reducing risk for their client and looked to how they could carry out the work in a cost-effective manner by using technology. Turning to Luminance, the firm analysed their previous projects for time and cost savings to come to a cost estimate suitable for their client and still profitable for the firm.

Indeed, Luminance can help firms bring profitability to a wide range of services, outside of transactional work, such as repapering exercises for GDPR, LIBOR and Brexit. One customer of Luminance, a global retail bank that needed assistance with GDPR repapering, saw time-savings of 80% by using Luminance when compared against their projected manual repapering time.



TRADITIONAL:

9 weeks, **Cost: \$33,300 (Associate salary)**



LUMINANCE:

7 days, Cost: \$5,180 (Associate salary) + \$3,800 (Technology): **Total cost: \$9,000**

Cost saving for a complete document review = c. 75% (or c. \$30k)

Time saving for a complete document review = 80% (7.5 weeks)

Law firms can increase their profit margin further on each product or service offering processed through Luminance as time goes on, as Luminance's supervised machine learning technology learns from the actions of the lawyers within the documents, and becomes increasingly bespoke with continued use. This means that, for example, tags created by users are remembered and automatically applied across new documents, or model clauses that have already been established as the firm's standard can be used quickly to compare all future documentation against.

Luminance allows firms to not only diversify their services and commercial offerings, but also to compete for projects that typically they wouldn't otherwise be able to. A recent example comes from **id est advocats**, a boutique corporate and technology law firm based in Switzerland, who deployed Luminance for a due diligence project. A team of less than 10 people, Mehmet Toral, Partner explained that **"using Luminance, we were able to identify key provisions in a matter of minutes. By accelerating labour-intensive review tasks, Luminance will allow us to substantially optimise due diligence operations in terms of speed, efficiency and cost"**. Luminance allows such firms to complete projects far faster than using manual review processes, and can continue to compete for projects that would otherwise be too expensive and time consuming to take on. In challenging economic times, where clients will be looking to gain maximum value for money in each project that they put out to tender, Luminance can help law firms to remain competitive in the market.

Some customers use Luminance as a way of winning new or additional business at a lower rate than they and their competitors might charge, but that still builds in healthy profits if the work is completed with the assistance of technology. For example, a Top 20 UK firm kept getting outbid for work because firms using technology were able to undercut them. When they identified this, the firm rapidly changed the way they approached their use of technology, successfully finding ways that they too could become more competitive in their fee quotations by adopting legal AI.



"With Luminance, this may be the best time to be in the business of providing legal services"

Sofia Barata, Head of Corporate Service Unit

VdA VIEIRA DE ALMEIDA

Methods for pricing AI-assisted legal services

Luminance's customers have successfully recouped technology costs through a variety of methods, including:

PASS THROUGH PRICING: this is a simple method of pricing which maintains maximum transparency between law firm and client. Here, the law firm simply passes on the price for Luminance as a line item. The law firm also bills the number of hours that associates spent on the project using Luminance, which because of the efficiencies Luminance generates, tends to be far lower than the hours typically associated with comparable projects. Associates have extra time to take on additional projects which will typically come from the very same clients, who are happy with the firm's commitment to openness and innovation. In addition, the time that associates spend on the project is in value-add areas: since the review itself is completed faster, lawyers will be spending more time on analysis for their clients.

PASS THROUGH PRICING WITH A PREMIUM: as above, but some customers find that they are successful with charging a lower price per project (due to the lower volume of billable hours needed), but with a premium built-in for delivering the project within a far quicker timeframe than originally would have been expected.

"INFRASTRUCTURE" PRICING: the law firm absorbs the price of Luminance, but is able to charge a higher rate per hour, or offer a lower cost per project but take on additional work. Infrastructure pricing can lead to significant uplift in profits for firms. Firms will sometimes calculate the fee quotation based off historic experience of how long it takes to review a certain type of document and how much the technology costs, and thus they can build a fixed fee amount for this type of repeat work.

Example infrastructure pricing with additional projects for increased profit margin



FULL MANUAL REVIEW:

10 hours. Associate charge-out rate p/h = \$500. $10 \times \$500 = \$5,000$ cost to the client.



LUMINANCE-ASSISTED REVIEW:

30 minutes. Associate charge-out rate p/h = \$500.

Firm absorbs cost of technology, and continues to charge client fixed fee of \$5,000.

Firm could do the same project 20 times using Luminance in time it takes to complete one manual review. In fee terms, the firm could earn \$100,000 in the same time they would normally earn \$5,000

There are other cases where Luminance customers employ an internal cost calculator to measure the impact Luminance can have on time savings and thus determine estimates of project fees for clients. For example, a Top 10 UK law firm have been a customer of Luminance for several years and during this time have kept track of all projects, calculating the average time savings that they have generated by using Luminance. The firm then use this calculator to project future costs associated with each project by selecting the type of review, inputting how many lawyers would be involved in the review, what their roles are, and how many hours they estimate the review to take manually. The calculator calculates how many hours using Luminance would take, based off their previous project statistics. This can then also provide an estimate of the lawyer's fees and the cost of using Luminance to pass on to the client.



"We've completed projects that would have been too time consuming for our legal teams and too expensive for our clients. Without Luminance, we would either never have taken on the work or would have had to sample small portions of the documents. By reviewing the entire data set, we're more confident in our results and can provide better advice; ultimately offering the best service for our clients"

Dr. Artur-Konrad Wypych, Associate Bird and Bird

Bird & Bird

No matter the style of pricing, many firms have incorporated a range of methods into their fee structures that provide recompense for law firms, whilst maintaining transparency and efficiency gains for clients. For instance, some firms add a surcharge to Luminance's project upload fees in order to cover their initial costs and some usage costs. Other firms build in the time spent by Luminance's Legal Technologists or Product Specialists who provide free-of-charge assistance (for instance, helping to set up the technology, running initial searches, etc.), charging rates for these services to their clients to recoup technology cost.

Luminance's Account Management team have experience in assisting with calculations of cost and how to propose pricing plans to clients – please speak with your Account Manager for further information.

The value of AI in mitigating organisational risk



“Businesses need to be certain of all their obligations, not just those in a sampled subsection.”

Manuela Cavallo, Founding Partner



With enterprise data growing an exponential rate, it is simply no longer feasible - or indeed desirable - to expect legal professionals to undertake complete reviews of all documentation without assistance. The scale of data growth is astounding: estimates suggest that 90% of the data in the world has been generated in the last two years, and that every day we create 2.5 quintillion bytes of data. In fact, 12% of organizations surveyed by CIO magazine reported over 100% percent data growth every month. Against this backdrop of incredible data generation, modern M&A transactions or reviews of corporate data are increasingly complex, costly and risky. Indeed, in order to meet time and budget constraints, lawyers have frequently needed to make compromises in terms of sampling, outsourcing or crude data extraction.



“We’re reaching a tipping point where it will be negligent not to use technology... if you’re not, you’re running a real risk of missing something”

Rob Webb QC
Former General Counsel, Rolls Royce and British Airways

There are, of course, numerous problems and potential risks that these approaches hold. Sampling during a manual review is not an adequate method of appraising what is contained within datasets- all the risk could be contained within the un-sampled set of data, and the sample could be entirely unrepresentative of the dataset at large. Outsourcing comes with the inherent danger that the review becomes fragmented and documents or tasks fall through the cracks when communication and co-ordination becomes disjointed. Indeed, this risk only grows as we look to the future of a world where lawyers spend less time in offices and working together physically as teams, and more time spent at computers in remote working environments.

Luminance helps firms to mitigate any reputational risk incurred as a result of providing advice drawn from only a selection of documents, or indeed, not adequately reviewed by lawyers who are simply facing document overload, by bearing the strain of reading and analysing all of the documents in a dataset. With Luminance, the machine can take the strain of wading through hundreds of thousands of near-identical documents, where small details can be all-too-easily missed. In fact, firms employing AI technology are in an advantageous position when bidding for new business, with clients favouring those firms who take extra precautions to minimise any reputational risk that they themselves might face in the fallout from ineffective contract review. Indeed, when it comes to M&A work, it is common for insurers to use Luminance when underwriting deals. Therefore by using Luminance during the due diligence phase of a transaction, lawyers can ensure they are fully aware of any issues that might derail the deal in the later stages.

Luminance can easily scale to ingest and analyse the largest of data sets, completely negating the need for sampling. For example, using Luminance, **Bird & Bird** undertook a review of 200,000 documents for their client. Clearly, this would have been near-impossible done manually, but with AI technology assisting the legal team, the lawyers could report their findings to their client confident that they had reviewed the data set in its entirety and drawn sound conclusions based on this. If sampling is still desired due to very tight resource constraints from the client, Luminance provides lawyers with the ability to sample in a more comprehensive and thorough manner, mitigating risk to the largest degree possible for their client.

As an example, during a transaction, a buyer's lawyers might be provided with a list of what is termed the 'Top 30' contracts by the vendor's lawyers. Using Luminance, lawyers can act quickly to strengthen the negotiating position for their client by identifying whether the sample is an adequate representation of a full data set and whether it provides sufficient representation to cover their client. Importantly, Luminance's AI technology not only mitigates risk and ensures robust defensibility regarding the breadth and depth of review, but also in the very manner of how documents are searched and understood. Unlike legacy systems which use pre-programmed rules-based approaches, Luminance uses unsupervised machine learning when reading and analysing documents. This is a type of learning whereby the machine has learned from huge quantities of data, analysing them closely for patterns, deviations and frameworks, as well as building up a picture of language and how it is used. Most importantly, it does this without reference to pre-conceived human notions of what each individual data point means. This in turn allows the software to find the 'unknown unknowns' hiding within data sets – these are the things that no one knew to look for, and thus had never built into searches or programmes. However, Luminance will surface anything to lawyers that looks anomalous, rather than returning search results programmed according to what a user thinks might be relevant. This has far-reaching implications for document reviews, as risks are brought to light, whether lawyers previously knew about it or not. For example, a leading UK firm undertook a review of leases relating to a restaurant franchise. Normally, in a manual review, a check list is used to guide the review process, ensuring specific aspects are identified. In this case, the lawyers used Luminance. As Luminance does not hide context from the reviewers, the firm found that of the 500 leases, one contained a change of control clause. The firm would never have found this had they undertaken a manual review, as change of control was not part of the check list.

By using the most powerful AI algorithms, Luminance allows lawyers to provide quality counsel, appraised of all information within their data set.

Using AI for strategic positioning



“Luminance allows you to spend more time being a lawyer as opposed to a detective”

Gavin Williams, Partner

Holland & Knight

Luminance is a key weapon in any firm’s strategic arsenal, whether they are corporate lawyers or litigators, ensuring they remain one step ahead of opposing counsel.

For areas such as due diligence, Luminance’s machine learning means that key risks or pieces of information are surfaced at the beginning of a review, allowing clients to adopt a favourable negotiating position at an earlier stage with a higher chance of success. One Global Top 100 law firm, and their clients had been told by the sellers that auto-renewal clauses could be expected in around 90% of contracts, thus making the business particularly attractive for the law firm’s clients. Within a few hours of reviewing the deal in Luminance, it was clear to the legal team that in fact auto-renewal clauses were only present in around 30%. Crucially, this was spotted immediately within the due diligence process. By spotting it right at the beginning, the law firm was in a particularly strong position to negotiate on the commercial specifics of the deal.

Law firms that use Luminance are therefore empowered to build the strongest of relationships with their clients, as they cement their reputation as being proactively aware of risk as early as possible throughout the review. Using Luminance, the review phase is completed far more quickly than with manual methods, leaving greater amounts of time for the law firm to provide advice, engage in further negotiations, and make critical decisions for their client. In fact, we are increasingly seeing situations in which firms competing for work are able to position their use of Luminance as a competitive advantage.



“Clients are increasingly expecting higher value work delivered within shorter periods of time. Clients are aware of the technology available and are expecting that law firms make the most of it... Technology like Luminance allows for more transparency between firms and their customers, building trust that their money is being spent on efficient teams who are using their time wisely”

Jordy de Vries Pricing Officer

HOUTHOFF

For example, in Australia, three firms were pitching for a project that a client had put out to tender. The firm that won the work had the most experience of using Luminance and could illustrate the ways that technology would really help to maximise the firm’s value on the project. For litigators, Luminance allows lawyers to quickly get to grips with what is contained within datasets prior to potential or impending legal action. Likewise, by quickly understanding what is contained in a dataset, lawyers are best-placed to expand and direct discovery requests early on in the investigation.

Luminance also helps to strengthen the client relationship as predicted costs around each project are more accurate, and the length of time involved in each review is likely to be far more controlled than if a manual review were needed. As detailed earlier in the whitepaper, internal time-saving calculators are frequently used by Luminance customers to work out fee structures. Luminance customers can also speak with their Account Managers, who are able to provide examples of time and cost savings on comparable projects, and suggest advice based on their experience of how other Luminance customers successfully price their services.



“The greatest benefit of Luminance lies within the immediate insight into the contents of the virtual data room. This allowed us to provide a more sound product to our client.”

Nick de Rooij, Associate, Dentons Amsterdam

大成 **DENTONS**



“We need to we have the right legal tech resources in place to show prospective trainees we are an innovative firm that cares about the way they work. If we don’t have these resources in place, we might lose that talent...they might go to another firm where these already exist”

Jan Smit, Knowledge and Innovation Manager

SLAUGHTER AND MAY

Using Luminance, firms can be more certain than ever that they will not require extra resource on the project and that the matter can be completed on time. This stability means there is less room for negotiations on price later, and disputes around payment are reduced.

Luminance is also a strategic investment for firms wishing to retain the best talent. Whilst document review will no doubt always be part of a trainee lawyer’s life, software like Luminance means junior lawyers will not just be wading through repetitive contract analysis, but will be able to apply and hone their newly acquired legal skills and knowledge, thus helping firms to retain the lawyers they have invested time into training. Likewise, by being able to work across more projects, associates are exposed to more examples more quickly and learn faster on more interesting, fulfilling tasks. In fact, Scottish firm Dickson Minto chose Luminance partly for its potential in ensuring that the firm’s younger lawyers remain motivated and excited by the cases they work on. Similarly, Dickson Minto also believe that Luminance is one way of attracting the brightest gradates and retaining top talent instead of risking them moving on to larger, often London-based, rivals.



“We need to we have the right legal tech resources in place to show prospective trainees we are an innovative firm that cares about the way they work. If we don’t have these resources in place, we might lose that talent...they might go to another firm where these already exist”

Christina Blacklaws, President of
the Law Society of England and Wales



“Luminance’s technology is empowering lawyers to provide the highest level of client service. By not being weighed down by repetitive, low-value tasks, lawyers can free up time to focus on more rewarding substantive work, concentrate on communicating and collaborating with their clients, and deliver faster, more efficient client service.

This is innovation at its finest.”

Oz Benamram,
Chief Knowledge Officer,
Simpson
Thacher

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 50 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 and Singapore.

demo@luminance.com

+44 (0) 20 7389 6350

www.luminance.com



TECHNOLOGY
PIONEER WINNER
2019

