[Generative] AI for In-House Legal Teams

# Introduction

ChatGPT was released by OpenAI on November 30, 2022, and almost at once burst into our collective consciousness. Social media was awash with engaging examples of things it could do. In short order, references to generative artificial intelligence (Gen AI), large language models (LLMs) and artificial intelligence model hallucinations became part of common parlance. The legal industry took note. In less than a year, just keeping track of all the Gen AI focused announcements and new offerings in the legal space has become a cottage industry. CaseText, a legal research platform that relies heavily on the kind of technology that underpins ChatGPT, was founded in 2013. It was acquired by Thomson Reuters for $650 million USD in cash in August 2023. In March 2023, Daniel Katz, Michael Bommarito, Shang Gao, and Pablo Arrondo, released a paper showing that GPT-4 could pass the United States Uniform Bar Exam and significantly outperform human test-takers in five of seven subject areas.[[1]](#footnote-2)

This article explores the potential impact of Gen AI and closely related technology for in-house legal teams. As an industry we are still in the exploratory stage of the process with most assessing potential use cases as opposed to deploying systems. This article is intended to further those conversations within a useful framework grounded in an understanding of the relevant technologies.

## Context

“It is difficult to make predictions, especially about the future” has been attributed to many people including Nobel-prize winning physicist Niels Bohr and legendary baseball player Yogi Berra.

Could we have anticipated ChatGPT and Gen AI? Perhaps. It did not strike like a lightning bolt out of the blue.

The start of natural language processing goes back to the 1950s with incremental progress made over time. Notwithstanding the evolution of the field, arguably the single most important advance came in 2017 when Vaswani et al published “Attention is All You Need” a paper that introduced the Transformer architecture and revolutionized the field. A discussion of the Transformer architecture is beyond the scope of this article but suffice it to say that it forms the foundation of most of the subsequent breakthroughs, including the current Gen AI models.

The Transformer architecture captures relationships between words in a sequence and handles long range dependencies. It is the key that allows us to build systems that capture concepts instead of focusing on isolated words. The next big step is the ability to generate text. (That’s the G in GPT. The P is for pre-trained. The T is for Transformer.) Generative models built on Transformer architectures use the relevant concepts to produce fluent text. Before the current collection of models, it was typical to build task-specific models. Today’s generative large language models are very flexible and can handle a dazzling array of language tasks. Put that all together, and you get to Gen AI.

Hindsight is 20/20. Perhaps natural language processing practitioners expected tools like ChatGPT. It is harder to argue that we could have predicted the speed with which Gen AI crossed over into mainstream culture and it is especially hard to argue that we could have foreseen the interest in Gen AI across the legal industry. The legal industry is not known for embracing innovative technologies.

## Regarding Hallucination

Current generative large language models are built to produce fluent text. The best generative models from even a few years ago are crude by comparison. Nevertheless, fluency is not accuracy. Models are built to respond. Even when there is little basis for a response. When generative models produce a response, they do so one word at a time. A single miss-step in constructing a response can put a generative model on a path towards an unbelievably bad response. I have just described a model hallucination.

There are a variety of techniques people use to limit model hallucinations. This is an evolving area of work. I am very skeptical when anyone claims to have eliminated the possibility of model hallucinations.

Hallucinations come about when models generate text. While we are always concerned with how models perform, accuracy is never guaranteed. But, when using these models for tasks that do not involve generating text, hallucination is not typically a major concern.

## A Framework

In-house legal does many things. One way to look at the work of an in-house legal team (including legal operations) is to partition its work into three groups. First, the team provides counsel to the company. Second, it supports the commercial business of the company, for example, by handling routine contracts and licenses. Third, it manages outside counsel. The balance of this article considers each of those three.

# Counsel to the Company

The in-house legal team provides counsel to the company. When viewed through this lens the team can look a lot like an embedded law firm. Of course, some in-house teams are very small and others quite large. This section considers a variety of use cases where Gen AI and closely related technology will likely have an impact.

## Internal Policies

Every company should have well-considered policies that address the use of artificial intelligence in conjunction with the relevant aspects of its business. These policies should cover the use of both public and private AI platforms by company personnel in connection with the conduct of the company’s business and the use of its non-public information. Companies should also have policies and procedures pertaining to the use of AI in their products and services. Companies should also have well considered policies and procedures related to the use of AI by human resources. The in-house legal team should be involved in developing these policies and procedures.

## Legal Research

The rise of large language models had a profound impact on legal research tools even before the introduction of Gen AI. Established vendors and new entrants seized on the ability to enhance traditional case law search by freeing users from the need to only use keywords with Boolean expressions and, instead, allow for more plain-spoken queries related to concepts. Gen AI and the current collection of large language models enhance those capabilities.

## Risk Assessment and Management, Compliance Monitoring, and Information Governance

All companies face risks related to both internal and external corporate communication. That risk is greater in some industries and is not uniform across the enterprise. Companies may be required to monitor some communications as part of an agreement with a regulator. Where a company and its legal and compliance teams need to monitor communications, whether in real-time or after the fact, the evolving language-based AI tools, and their ability to latch onto concepts will increasingly enable in-house legal or any other group charged with assessing, managing, or monitoring those communications to accomplish those tasks more effectively and efficiently. Gen AI can also be particularly useful in assembling and summarizing a collection of results.

In-house legal is an important stakeholder in corporate information governance programs. These programs are often realized by using third-party information governance tools that have historically relied on then-current AI technologies. We should expect that these tools will increasingly reflect the use of Gen AI and support real-time behavior analysis and data loss prevention.

## Regulatory Filings

In-house legal teams participate in the preparation of a wide array of regulatory filings, some are simple templates filed quite frequently, others are nuanced and quite complex. We do not need sophisticated AI-powered drafting tools to handle tasks that can be accomplished by traditional document assembly tools. The preparation of more complex filings can be enhanced with Gen AI powered drafting aids. When a regulatory filing requires an analysis of business operations reflected in various tools and databases shot through an organization, Gen AI powered analytics seem well positioned to assist. Another use case is for quality control and consistency checking both internal to a filing and across filings.

## Process Automation

Process automation is well established. The colorful term Robotic Process Automation (RPA) evokes entertaining images of machines scurrying about tending to repeatable processes far more effectively than people. In-house legal teams have always had the opportunity to focus RPA on their workflows. Gen AI can extend RPA. For example, consider a scenario where a process begins with an intake communication that must be processed to trigger an automated workflow. Gen AI is well positioned to receive a plain English email message, extract the salient information, and then trigger the RPA mechanism. This is an example of how Gen AI can be used in concert with other techniques and serves as a reminder that we should not be so quick to disregard well-established and highly effective techniques just because they are not grounded in the latest technology.

## Internal Chat Bots

Rule-based expert systems have existed since the 1980s. They were (and are) used to replicate the decision process of experts in a particular domain. They work best for very narrow and technical problems where the rules are well understood even though complex. These systems can walk a user through the easier, often routine questions that arise, and then deflect to the domain expert when the situation gets to a boundary. You can draw a straight line from that work in the 1980s to similar systems from a decade or so ago that attack similar problems with more current technology. Many of these systems use chat style user interfaces. Gen AI extends the line.

In recent years we have seen innovative law firms and corporate legal departments deploy internal chat bots to either respond to or route routine internal questions. Clearly these all require guard rails. Gen AI allows us to build systems to ask questions about documents and respond in a fluent fashion, again, with guard rails to mitigate hallucination risk. For lower risk topics, this use case should prove highly effective as a means for a small team to handle questions from across the company.

# Commercial Contracting

In-house legal supports the commercial business of the company by handling routine contracts and licenses. This cluster of activity goes to the heart of the business. Here, it is especially important to think about Gen AI in the broader context of existing tools and technology and to recognize that it is most powerful in the hands of experts. Put another way, we can expect the tools to make commercial lawyers more effective by minimizing tedious tasks and expanding what they can achieve in a given timeframe. Now is a good time for in-house commercial lawyers to review their tool kits.

## Drafting and Negotiation Aids

We are beginning to see drafting and negotiation aids driven by Gen AI. They work best at the clause level and are not yet well suited to creating complex agreements from scratch. More traditional machine-learning approaches are effective at identifying common patterns at the clause level when looking at clusters of agreements. Gen AI can build upon the traditional approaches. Because in-house commercial lawyers tend to work on a limited set of agreements at volume, they typically have a good collection of reference agreements. These collections can be ingested by the increasingly powerful drafting and negotiation adds to make it easier for in-house lawyers to spot outliers, get a sense of the range of what has been accepted in the past, and so forth. Where Gen AI will shine is the ability to tune clause-level language. Emerging solutions allow for “make this clause more buyer friendly” prompts.

## Playbooks and Model Agreement Management

Pre Gen AI machine-learning approaches have been useful when creating agreement templates. The rise of Transformer based large language models and now Gen AI tend to make those tasks less difficult – which is not to say they are easy yet. As with the other use cases described above, it is reasonable to expect that the best results will be attained when building and managing playbooks and model agreements in reliance on a blend of technology. Here, I want to stress that it should not be incumbent on the in-house legal team to determine how to blend the technologies, rather, the vendors should be doing that when creating their offerings. After all, the end user just wants to solve a problem. The end user should not need to think about how to build the tool set to accomplish that goal.

As noted above, Gen AI is not yet able to take a term sheet and generate a nuanced agreement out of thin air. On the other hand, we should expect to find that drafting aids coupled with model agreements used in conjunction with Gen AI will get us to executed agreements quicker.

## Self-Service

Automated contract assembly tools have existed for a long time. As with legal research, we will see incumbents leveraging Gen AI to enhance their offerings and the emergence of new vendors. Newer offerings should be easier for both end users and the in-house experts charged with setting up the specific contracts.

## Contract Analysis and Contract Lifecycle Management

Gen AI not as good as more traditional machine-learning approaches for term extraction. And we have seen instances where automated alternatives outperform machine-learning. Nevertheless Gen AI used in concert with machine-learning will outperform either approach in isolation. Again, it is incumbent on the vendors to harmonize the techniques.

Where a company has already done a good job of capturing the relevant fields and populating a contract lifecycle management system, it does not seem like Gen AI is well placed to add meaningful value. On the other hand, where those things have not been done, Gen AI, in concert with other more traditional techniques, should help bridge the gap.

## Risk Assessment and Consistency

The same language driven tools that are useful for analyzing clusters of documents to inform the negotiation of a new contract or to create a model can also be used to look for outliers or language that has been identified as particularly risky.

# Managing Outside Counsel

In-house legal teams (including for this purpose, legal operations) manage outside counsel. This section considers the role of Gen AI and related technology for that purpose.

## Outside Counsel Guideline Compliance

Confirming that outside counsel complies with the company’s guidelines can be a very challenging task that, to a large degree, relies on analysis of individual time note entries. Machine learning models can be trained to identify specific guideline violations. The shift from traditional word-based approaches to the concept-based approaches signaled by the emergence of Transformer architectures opens a new level of analytical power that can be brought to the guideline compliance task. Whether the more traditional machine learning-based approaches will give way to Transformer based large language model approaches (including Gen AI) or used in harmony remains to be seen.

## Matter Summary Generation

In-house legal teams need to prepare matter summaries to be presented to various internal stakeholders. Outside counsel cannot be relied upon to prepare summaries in a uniform manner and in ways that meet the needs of different people inside the company. Gen AI holds the potential to take matter-level information from outside counsel and internal sources and generate summaries in various role-based formats to meet the needs of internal stakeholders. As is always the case when using large language models to generate text, the tools are best viewed as generating drafts that need to be reviewed and refined. While the models do not typically generate final versions, they tend to accelerate the process meaningfully.

## Data Driven Insights: Budget, Panel, Billing and Performance Management

Gen AI holds the promise of making it easier to identify and deliver relevant insights from data. This use case is more aspirational compared to most of the others described in this article. The expectation is that Generative AI will be helpful in both interpreting data and presenting the results. When it comes to managing outside counsel and matter management, the tools may make it easier to t issues in budget management, panel relationships, billing practices and performance management in general.

1. Katz, Daniel Martin and Bommarito, Michael James and Gao, Shang and Arredondo, Pablo, GPT-4 Passes the Bar Exam (March 15, 2023). Available at SSRN: https://ssrn.com/abstract=4389233 or http://dx.doi.org/10.2139/ssrn.4389233 [↑](#footnote-ref-2)