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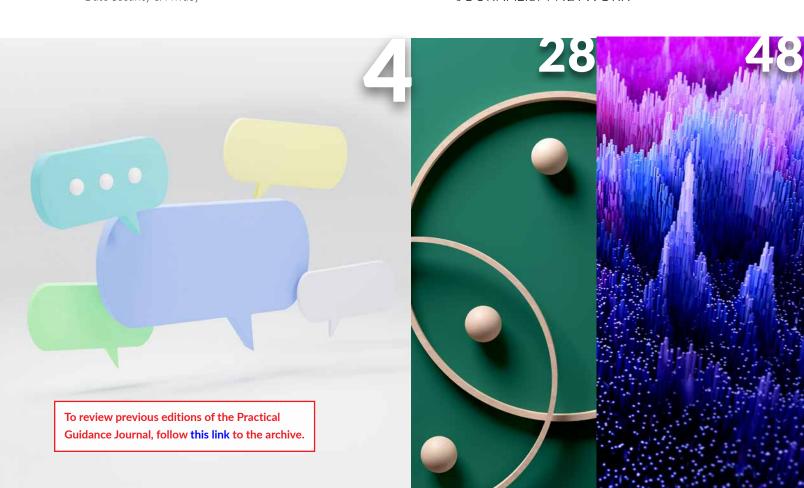
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#### SPECIALIZED USES OF GENERATIVE

artificial intelligence (GenAl) are exploding throughout the practice of law. This exponential growth is reaching into many unexpected facets of the law. This edition of the Lexis Practical Guidance Journal looks into impacts in the areas of discovery, investment, mergers and acquisitions, data privacy, and intellectual property.

Generative Al's role in discovery is discussed in the article, Generative Al in Discovery: GPT Prompt Preservation and Production Best Practices. It covers best practices and strategic insights litigators should consider in a federal court litigation when dealing with discovery produced by generative artificial intelligence tools.

Data security, privacy, and minimalization requirements are rapidly evolving as GenAl technology expands. An explosion of commercial applications of GenAI technology and tools complicated by their requirements to train on very large data sets, present challenges with applying data minimalization principles. Explore strategies for ensuring that your Gen AI tech and tools can withstand regulatory scrutiny in the article, Generative Artificial Intelligence, Data Minimization, and Today's Gold Rush.

Investors looking to capitalize on the exponential growth of artificial intelligence over the past decade continue to seek opportunities related to this transformative technology. The article, Artificial Intelligence Investment: Risks, Due Diligence, and Mitigation Strategies, explores the AI investment landscape, including trends in AI funding, the benefits and risks associated with AI investments, and key players in the market. It also reviews the legal and

regulatory framework surrounding AI, the importance of due diligence when investing in AI, and the role of data in AI systems.

For a high-level overview of intellectual property implications associated with AI, review the article, Patent Protection for Artificial Intelligence and Machine Learning. This guidance offers tips when drafting patent applications related to artificial intelligence and machine learning, and discusses trends and strategies for handling prosecution of such inventions.

Finally, we provide the results of our Private Market Data Real Estate and Labor & Employment surveys. The results reveal insightful trends related to recent changes in commercial real estate lending, sustainability-linked funding, and employment discrimination settlement agreements.

# Our mission

The Practical Guidance Journal is designed to help attorneys start on point. This supplement to our online practical guidance resource, Practical Guidance, brings you a sophisticated collection of practice insights, trends, and forward-thinking articles. Grounded in the real-world experience of our 2000+ seasoned attorney authors, The Practical Guidance Journal offers fresh, contemporary perspectives and compelling insights on matters impacting your practice.







Rose J. Hunter Jones, Kassi R. Burns, and Meredith A. Perlman KING & SPALDING

# Generative Al in Discovery:

# **GPT Prompt Preservation and Production Best Practices**



This article discusses best practices and strategic insights litigators should consider in a federal court litigation when dealing with discovery produced by generative artificial intelligence (GAI) tools.

#### SINCE THE LAUNCH OF OpenAI'S ChatGPT 3.5 IN NOVEMBER

2022, discussions about the use of GAI tools like ChatGPT have dominated the news, publications, conference panels, and social media. The use of generated pre-trained transformers (GPT) is a topic that spans all industries and verticals, with the practice of law being no exception.

While the legal profession grapples with heady topics like appropriate use cases, potential bias, privilege and confidentiality considerations, and the application of legal ethics when using GPT and other GAI tools, it is important to look ahead to contemplate how the use of these tools will be addressed in litigation. This article focuses specifically on preservation and production obligations in federal civil litigation and how those obligations may apply to the emerging GPT tools businesses and individuals increasingly are using.

Finally, this article also contemplates the development of corporate GAI policies that will address a wide variety of issues related to the use of GPT tools. For example, these policies could include requirements for employees to acknowledge the use of GPT tools as a step in their process, which will ultimately be validated, refined, and finalized by the employee to accurately reflect the intended message or information.

#### **GPT Prompt Engineering**

Users engage with GPT-based tools like ChatGPT through a chat box mechanism. Unlike a search bar, where one enters text to get search results, and then scrolls through to find the result that best matches what they were hoping to find, a GPT chat box is an iterative engagement, where the user:

- Enters a text (or a prompt) for the system to create content -and-
- Provides supplemental instructions for the chat box to refine those results

If the chat box does not provide the results that the user expects, the user can relay additional information during the chat until they achieve the desired results. Those chats exist as distinct communications (or conversations) with the GPT chat box and are displayed like chat messages on a mobile device or messaging application. Typically, users can scroll back through and review the back-and-forth interplay between them and the GPT tool. However, different GPT tools each have unique retention policies and some prompts may not be available indefinitely. Additionally, if the user deletes the prompts, depending on the tool, that information may be permanently lost. This process of engaging with the chat using

prompts for a specific desired output is commonly referred to as prompt engineering.

OpenAl recommends six prompt engineering tactics for improved results:

- 1. Write clear instructions
- 2. Provide reference text
- 3. Break up complex tasks into simple subtasks
- **4.** Instruct the GPT model to give itself time to think about complex tasks
- 5. Use external tools -and-
- 6. Test changes systematically

GPT systems are powerful tools, but OpenAl's guidance highlights the iterative nature of using its ChatGPT to maximize results. For some legal disputes or investigations, this iterative interplay with GPT systems may be key to a relevant issue, and therefore could be subject to discovery.

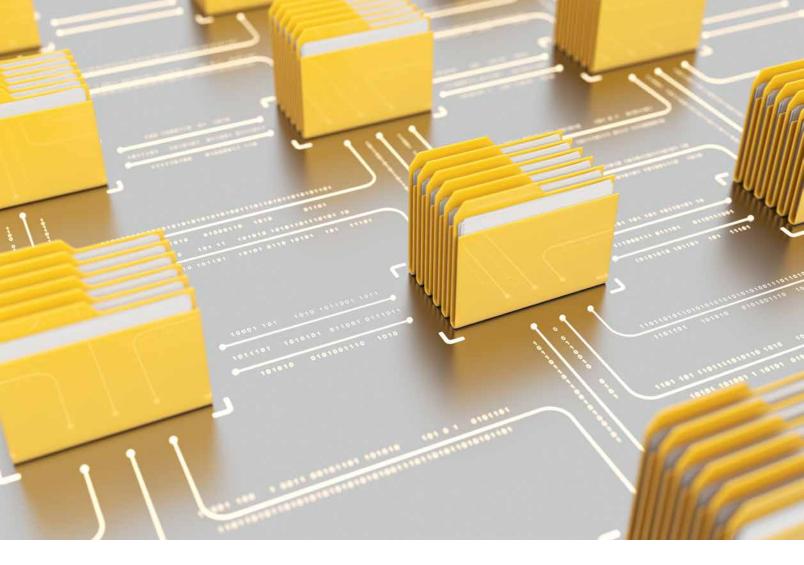
#### **Preservation Obligations**

In federal civil litigation, preservation obligations refer to the legal duty imposed on parties to ensure the protection and retention of electronically stored information (ESI) that may be relevant to a pending or anticipated litigation. This duty arises from the recognition that ESI plays a significant role in modern legal proceedings. Preservation obligations are crucial to maintain the integrity of the legal process and prevent the spoliation (i.e., destruction or alteration) of evidence.

Preservation obligations are triggered when a party reasonably anticipates litigation. This trigger includes situations where a party receives notice of potential legal action or becomes aware of facts that suggest litigation is imminent. Once the duty is triggered, the obligation to preserve relevant ESI attaches. Parties must preserve all relevant ESI, including:

- Documents
- Emails
- Text messages
- Social media content -and-
- Other digital records

The scope of preservation is broad and extends to information that may be directly or indirectly related to the litigation. The Federal Rules of Civil Procedure (FRCP) set forth a party's obligation to



preserve and produce data in federal civil litigation. Rule 34(a) (1)(A) of the FRCP broadly defines the data sources subject to preservation and production:

Rule 34. Producing Documents, Electronically Stored Information, and Tangible Things, or Entering onto Land, for Inspection and Other Purposes

- a) In General. A party may serve on any other party a request within the scope of Rule 26(b):
- to produce and permit the requesting party or its representative to inspect, copy, test, or sample the following items in the responding party's possession, custody, or control:
- A) any designated documents or electronically stored information—including writings, drawings, graphs, charts, photographs, sound recordings, images, and other data or data compilations—stored in any medium from which information can be obtained either directly or, if necessary, after translation by the responding party into a reasonably usable form. (emphasis added.)¹

# The Committee Notes to the 2006 Amendment to Rule 34(a)(1) make clear that this definition is to be broadly interpreted:

Discoverable information often exists in both paper and electronic form, and the same or similar information might exist in both. The items listed in Rule 34(a) show different ways in which information may be recorded or stored. Images, for example, might be hardcopy documents or electronically stored information. The wide variety of computer systems currently in use, and the rapidity of technological change, counsel against a limiting or precise definition of electronically stored information. Rule 34(a) (1) is expansive and includes any type of information that is stored electronically. A common example often sought in discovery is electronic communications, such as e-mail. The rule covers either as documents or as electronically stored information information "stored in any medium," to encompass future developments in computer technology. Rule 34(a)(1) is intended to be broad enough to cover all current types of computer-based information, and flexible enough to encompass future changes and developments.2

<sup>1.</sup> See Fed. R. Civ. P. 34(a)(1)(A). 2. See Fed. R. Civ. P. 34(a)(1), Cmte. Notes to 2006 Amendment.

Whether GPT-based tools are within a company's possession, custody, or control, and this subject to a preservation obligation, is not yet a developed area of the law. However, courts generally apply one of three tests in a possession, custody, or control assessment.

Over the past few years, litigators have increasingly seen issues around obligations and discoverability of other varied and more modern data sources—such as mobile data, hyperlinks, and collaboration tools—become an area of focus in discovery disputes. Court orders around possession, custody, control, relevancy, and proportionality have been issued with regularity as the judiciary addresses how these obligations should apply to emerging technologies.

Preserving GPT prompts presents its own challenges:

- Dynamic responses. One of the unique challenges GPT tools present is the dynamic nature of the responses. GPT models generate text responses based on the input prompts. However, these responses are not static and can vary depending on the model's parameters, context, and even the same prompt entered at separate times. This dynamic nature makes it challenging to capture and preserve a specific response tied to a particular prompt.
- No tracking functionality. GPT service providers typically do not offer native prompt logging or archiving. This lack of builtin logging capabilities means users must rely on their own recordkeeping methods.
- Ephemeral interactions. GPTs often use real-time or ephemeral online interactions. Preserving such interactions can be logistically complex and may require immediate preservation.

Accordingly, once the duty to preserve is triggered and you determine that GPT prompts are within scope, you should observe preservation best practices for GPT tools such as:

- Evidence authentication. Consider how you will authenticate and verify GPT prompts. Develop procedures to ensure content's integrity, which may include documenting timestamps and any potential edits.
- Comprehensive record retention. Maintain comprehensive records of your use of GPT tools, including the specific prompts you fed into the tool and the responses generated. This documentation can aid in identifying relevant content.

- Backup procedures. Implement regular backup procedures for GPT prompts to help ensure their preservation, especially in dynamic, collaborative environments.
- **GPT metadata.** Capture and preserve metadata associated with GPT prompts, which can provide valuable context and authenticity.
- Litigation holds. Issue legal hold notices to relevant personnel, including those using GPT tools, to communicate the duty to preserve and prevent inadvertent deletions. Be sure to provide sufficient explanation addressing the complexity of GPT tools, especially where self-preservation of prompts is the only option. This preservation and legal hold notice process should align with any existing corporate GAI policies.
- Prompt relevancy. Address GPT tools in custodial interviews to assess the relevancy of GPT prompts, if any, and evaluate whether circumstances require enterprise-level preservation monitoring or collection-to-preserve.
- **Expert consultation.** Given the rapidly evolving and technical nature of GPT tools, consulting with experts in the field may be necessary to develop effective preservation strategies.

#### Possession, Custody, and Control

Whether GPT-based tools are within a company's possession, custody, or control, and thus subject to a preservation obligation, is not yet a developed area of the law. However, courts generally apply one of three tests in a possession, custody, or control assessment:

- Legal right standard. This standard takes the most restrictive view of possession, custody, or control. Documents or data are within a party's possession, custody, or control only if the party "has the legal right to obtain the documents [or data] on demand."<sup>3</sup>
- Legal right plus notification. Some jurisdictions apply the legal right standard but additionally require the party to notify any opposing parties about potentially relevant documents and data in the possession, custody, or control of third parties.<sup>4</sup>



■ Practical ability standard. This standard encompasses the broadest amount of information. Documents or data are within a party's possession, custody, or control if the party has the practical ability to obtain the documents or data from a third party, even if the party does not have legal ownership of those documents or data.<sup>5</sup>

GPT presents unique challenges related to possession, custody, or control of the GPT prompts on GPT service sites. The following essential considerations and tips can help you deal with this emerging technology:

- Understand the nature of GPT service sites. Familiarize yourself with the GPT service sites you are dealing with. Know how these platforms function and the terms of services that apply.
- **Review the terms of service.** GPT sites' terms of service can help you determine data ownership and usage rights. These terms can vary, and they impact your ability to access or control the content generated.
- Seek expert advice. Consider seeking advice from AI and data management experts to navigate the complexities of GPTgenerated content. Their insights can be invaluable in building a strong strategy.

#### **Production Obligations**

In the context of federal civil litigation, production obligations pertain to the process by which parties must provide ESI in response to discovery requests. These obligations are integral to ensuring transparency and fairness in legal proceedings, as they dictate how parties exchange relevant evidence. As GPT tools become more prevalent in business and personal use, it is essential to understand how production obligations apply to the content generated by these systems. Parties should be prepared to address the unique challenges associated with GPT prompts, including relevance, proportionality, privilege, and confidentiality, while employing best practices to fulfill their production obligations.

#### Relevance

Information subject to production obligations must be relevant to the claims and defenses in the litigation. Rule 26(b)(1) of the FRCP defines discoverable information as follows:

#### Related Content

For a comprehensive guide to current practical guidance on generative artificial intelligence (GAI), ChatGPT, and similar tools see



GENERATIVE ARTIFICIAL INTELLIGENCE (AI)
RESOURCE KIT

For a discussion of ethical issues faced by attorneys when considering using GAI technology in their practices, see



AI AND LEGAL ETHICS: WHAT LAWYERS NEED TO KNOW

For insight into a judge's view of the use of GAI, see



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For an overview of the primary issues relating to the use of ChatGPT in the practice of law, see



**LAWYERS AND CHATGPT: BEST PRACTICES** 

For an introduction to predictive coding in the context of discovery in federal court litigation, see



PREDICTIVE CODING FUNDAMENTALS (FEDERAL)

Parties may obtain discovery regarding any matter, not privileged, which is relevant to the subject matter involved in the pending action, whether it relates to the claim or defense of the party seeking discovery or to the claim or defense of any other party, including the existence, description, nature, custody, condition, and location of any books, documents, or other tangible things and the identity and location of persons having knowledge of any discoverable matter.<sup>6</sup>

GPT prompts, like any other ESI, must meet this relevance standard. Given the complexities surrounding GAI technologies, there may be many instances where a given matter does not meet this standard. Parties may dispute the relevance of GPT prompts, particularly if their connection to the case is not immediately apparent.

Also consider the impact of any corporate GAI policies in place and the requirements such policies may impose on employees to ensure they refine and validate GPT outputs, and confirm the outputs reflect the information and/or message the employee intends to relay.

#### **Proportionality**

As lawyers navigate the production of GPT prompt data in litigation, it is crucial to apply the principle of proportionality. Balancing the relevance and importance of this data with the costs and burden of production is essential. This means that you must balance the cost, burden, and potential disruption caused by the production against the likely benefit you will receive using this data in your case. Courts should consider the volume and significance of GPT prompt data in proportionality assessments. Rule 26(b)(1) of the FRCP limits discovery to matters that are:

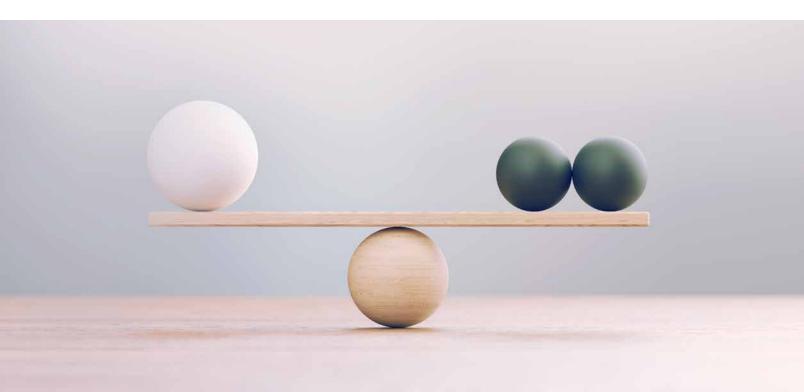
- Relevant to any party's claim or defense -and-
- Proportional to the needs of the case<sup>7</sup>

Consider taking the following steps to effectively assess proportionality in your litigation:

- Clearly define the scope of GPT prompts to be produced by identifying:
  - What types of content are relevant to the case
  - · How the content relates to the claims or defenses
- Determine who the key custodians of GPT prompts are and which data sources are most likely to contain relevant information
- Carefully assess the relevance of GPT prompts to the litigation by determining if the content is:
  - Directly related to the issues in the case -or-
  - Peripheral

- Weigh the significance of GPT prompts and how important they are to proving or defending against claims (high-impact data is more likely to be proportional for production).
- Examine the volume of GPT prompts as large volumes may require more stringent proportionality considerations than data limited in scope.
- Calculate the potential costs and burden associated with producing GPT prompts, considering factors such as:
  - Data collection
  - Review
  - Necessary technical expertise
- Factor in data privacy and confidentiality concerns, as some GPT prompts may contain sensitive or privileged information.
- Engage in open and constructive communication with opposing parties about:
  - The scope and proportionality of GPT prompt production -and-
  - Potential agreements and limitations
- Keep records of your proportionality assessment, documenting:
  - The criteria considered
  - The basis for your decisions -and-
  - Any negotiations with opposing parties
- Proportionality is not static so be sure to reevaluate your assessment as the case evolves and more information becomes available.

7. See Fed. R. Civ. P. 26(b)(1).



By following these practice tips and strategies, lawyers can make informed decisions regarding the proportionality of GPT prompts in litigation, ensuring that they maintain a balance between relevance and burden while complying with legal obligations and ethical considerations.

#### **Privilege and Work Product Protections**

Privileged and work product-protected documents are generally exempt from production. It is crucial to assess whether GPT prompts fall under these protections. If, for example, a lawyer uses a GPT tool to draft legal advice, the prompts may be subject to attorney-client privilege.

#### Form of Production

The form in which you can produce ESI can vary. Courts may specify the format, such as native files, PDFs, or structured data. With GPT prompts, choose a format that ensures its usability and understandability by all parties involved. Like short-form messages, there is no standardized format for production, so the parties should negotiate in good faith toward a result that is equitable under the FRCP.

Producing GPT prompts can be challenging. For example, parties must take measures to ensure that all relevant GPT prompts are

produced. Additionally, GPT prompts may contain sensitive or confidential information. Balancing the obligation to produce with data privacy and confidentiality concerns is essential.

Here are some production best practices for GPT tools:

- Implement quality control measures to ensure that parties produce GPT prompts accurately and completely.
- If necessary, redact sensitive information from GPT prompts to protect confidentiality.
- Ensure the authenticity and integrity of GPT prompts through proper documentation and verification.

# Practical Considerations for Business and Individuals

By following these practical considerations, businesses and individuals also can develop effective data management protocols, implement legal and technological strategies to meet their obligations, and ensure that employees using GPT tools are aware of their responsibilities in maintaining compliance with data-related regulations. Be prepared to effectively guide these efforts through your legal advice and consultation.



As with other ESI sources, consider developing data management protocols. These protocols may include the following:

- Customized data policies. Work with your organization to create data management protocols tailored to your specific needs and risks. Ensure they address the unique challenges posed by GPT-generated content and prompts. Additionally, organizations should consider the development of GAI policies to address evolving regulatory and compliance requirements.
- Data classification. Categorize data by sensitivity and importance. Define which data you must preserve, the retention periods, and the level of protection required for distinct categories.
- Data collection and preservation practices. Establish clear procedures for collecting, preserving, and securing GPTgenerated content and prompts. This includes defining responsible custodians and methods for data retention.
- Compliance with legal obligations. Ensure that data management protocols align with legal preservation and production obligations, including rules governing ESI. Regularly update these protocols to reflect changes in laws and regulations.
- **Data mapping and inventory.** Create a comprehensive data inventory to track the location and nature of GPT-generated content and prompts. Maintain a record of where data resides, such as third-party GPT service sites.

To comply with any preservation and production obligations, consider the following legal and technology strategies:

- GAI policies and training. Implement corporate GAI policies to address the use of GPT tools, including approved tools, uses, and requirements. Provide training not only regarding proper use of these new tools but also regarding corporate and regulatory requirements.
- Expert consultation. Engage with experts in e-discovery and GAI technologies. Seek their guidance in understanding the legal implications and technological solutions for GPT-generated content and prompts.
- Legal hold notices. Develop clear procedures for issuing legal hold notices when you anticipate litigation. Ensure that employees using GPT tools understand their responsibilities under legal holds.
- **Technology adoption.** Leverage e-discovery and GAI tools to streamline the identification, collection, and review of GPT-generated data and prompts. These technologies can reduce the cost and complexity of compliance.
- Regular audits and testing. Conduct regular audits of data management protocols and e-discovery processes. Assess the effectiveness of data preservation and retrieval systems to ensure they function as expected.

#### **Related Content**

For recommendations on best practices to be used by litigators when working with e-discovery in federal court litigation, see



#### E-DISCOVERY BEST PRACTICES (FEDERAL)

To explore the role of the metadata of electronically stored information in e-discovery in federal court litigation, see



#### **METADATA IN E-DISCOVERY (FEDERAL)**

For an analysis of technology-assisted review of electronically stored information, see



# TECHNOLOGY-ASSISTED REVIEW: OVERVIEW (FEDERAL)

For a sample certificate regarding the use of GAI in federal court, see

# GENERATIVE ARTIFICIAL INTELLIGENCE (AI) USE AND COMPLIANCE CERTIFICATION (FEDERAL)

For a comparison of the most common electronically stored information production formats found in federal court civil litigation and the advantages and limitations of each format, see



#### ESI PRODUCTION FORMATS CHART (FEDERAL)

For an explanation on how email threading works, the technological benefits of using threading, and strategic considerations for it in document review and production in federal court litigation, see



# EMAIL THREADING IN E-DISCOVERY CHECKLIST (FEDERAL)

For a review of issues relating to e-discovery search terms and search parameters in federal court litigation, see



# E-DISCOVERY SEARCH TERMS CHECKLIST (FEDERAL)

- Encryption and data security. Implement encryption and robust data security measures to protect sensitive GPT-generated content and prompts. Safeguard against data breaches and unauthorized access.
- Evolving technologies. Stay current with the evolving landscape of GPT tools and GAI advancements. Continuously adapt your legal and technological strategies to address emerging challenges.



Most importantly, ensure that employees have training and awareness of their responsibilities as it relates to the proper use of GPT tools. Here are some examples:

- Training programs. Develop comprehensive training programs for employees using GPT tools. Ensure they understand their responsibilities in data management and compliance.
- Data ethics, privacy, and privilege. Educate employees on data ethics, privacy regulations, privilege, and best practices for handling sensitive information when using GPT tools. Privilege training should, at a minimum, address attorney-client privilege and the work product doctrine, but depending on the industry, may also need to address other kinds of privilege (e.g., bank examiner's privilege).
- Clear communication channels. Establish clear channels for employees to seek guidance or report issues related to GPTgenerated data and prompts. Encourage transparency in data management practices.
- Internal guidelines and policies. Create internal guidelines and policies that address the appropriate use of GPT tools, data handling procedures, and legal compliance.
- Regular updates and refreshers. Periodically refresh training materials and conduct refresher courses to keep employees informed about changes in data management protocols and legal requirements.

#### **Preparing for Our GAI Future in Litigation**

In the context of federal civil litigation, addressing preservation and production obligations regarding GPT and prompts is essential for maintaining the integrity of legal proceedings. The evolving landscape of GAI, particularly GPT tools, introduces unique challenges that legal professionals, businesses, and individuals must navigate.

Preservation obligations encompass the duty to protect and retain relevant ESI in anticipation of or during litigation. GPT-generated content and prompts, being a form of ESI, require special attention due to its characteristics, such as identification challenges and data integrity concerns.

Production obligations come into play when parties need to produce ESI as part of discovery requests. GPT-generated data and prompts may be subject to these obligations, necessitating careful consideration of relevance, proportionality, and production format.

In conclusion, the integration of GPT tools into litigation practices requires a nuanced understanding of preservation and production obligations. It calls for the development of best practices and the incorporation of expert consultation. Legal professionals, businesses, and individuals must adapt to the unique challenges presented by GPT-generated content and prompts while upholding the principles of fairness, transparency, and compliance with legal obligations in federal civil litigation.

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# Generative Al in Litigation:

# 5 Key Considerations Before Using Generative Al

This infographic checklist provides an overview of five key considerations attorneys should keep in mind before using generative artificial intelligence (AI) apps, like ChatGPT, in their next litigation and, more broadly, in their legal practice.



#### **Related Content**

For additional resources on generative AI, see



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### **Considerations Before Using Generative AI in Litigation**

#### **Protect Confidential Information**



Do not enter any information that is protected by the attorney client privilege or contains your client's confidential, sensitive, or propriety information. Use caution when inputting case-specific facts into any large language model. Generative AI apps, such as ChatGPT, allow developers to see and potentially use information you input to further train the app. This disclosure could constitute a breach of your duty of confidentiality and risk your client's confidential information becoming public.

#### Watch for Hallucinations

Generative AI apps are known to sometimes provide misinformation or entirely made-up responses known as "hallucinations"—when the large language model does not know the answer. These AI hallucinations, provided authoritatively and without qualification, can give litigators a false sense of security that the information provided is in fact true. Always try to independently confirm the veracity of information any large language model provides.



#### Trust, But Verify



Generative large language models like ChatGPT are trained on data from across the internet. As a source, the internet is prone to biases and rife with inaccurate and incorrect information. Accordingly, you must carefully review and verify your generative AI outputs to ensure their accuracy.

#### **Protect Confidential Information**

ChatGPT and other generative large language models can be helpful tools litigators can leverage in their daily case work. Note, though, these models are not reading and interpreting cases or secondary sources to provide an informed response to your request. Instead, the apps use machine learning to predict the most likely next word in a sentence. Accordingly, be sure to supplement all generative AI outputs with your own research and analysis to meet your client's legal needs.



#### **Ensure Client Needs are Met**



Litigators may be tempted to use generative AI apps to drafts briefs, pleadings, and other memoranda. However, any large language model's sources are not readily apparent to end users. When drafting legal documents, use generative AI tools with caution to ensure you are not plagiarizing an existing source and exposing you or your firm to liablity.



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Kirk A. Sigmon BANNER WITCOFF

# **Patent Protection** for Artificial Intelligence and Machine Learning

This article discusses patenting artificial intelligence (AI), machine learning (ML), and related inventions.

#### IT PROVIDES A HIGH-LEVEL OVERVIEW OF AI AND ML,

offers tips for drafting a patent application directed to inventions relating to AI and ML, and discusses trends and strategies for handling prosecution of such inventions.

#### Al Basics

As a preliminary matter, it is important to distinguish among AI in the general sense, ML, deep learning, and other commonly used terms in the field.

#### ΑI

The term artificial intelligence generally refers to causing computing devices to perform human-like thinking. The phrase has been used in patent applications for decades, though historically, few computers could do anything remotely approximating human-like thinking. In fact, many patent applications seemed to use the term like a marketing mechanism, extolling the virtues of particular algorithms and/or processes.

#### ML

ML models, a subset of artificial intelligence, are one of the latest forms of algorithms that enable computers to approximate human-like thinking. ML models are often configured (i.e., trained) through large quantities of data—often referred to as training data—to learn, through that data, to perform particular tasks. While the term machine learning is also quite old (and was used as early as the 1960s by computer scientist Arthur Samuel), it was historically somewhat infeasible, and modern computing devices permit ML model implementation on even consumer-grade hardware.



Stated more plainly, the world has been trying to do ML for a long time, but modern hardware makes it significantly easier to do so.

One of the most promising implementations of ML models comprises so-called deep learning, using artificial neural networks that are intentionally designed to mimic the human brain. Such an approach is computationally costly but can result in some amazing results: for example, the famous ChatGPT algorithm uses deep learning in a manner that allows it to answer questions realistically.

#### Natural Language Processing (NLP)

It is not uncommon for AI and ML to be associated with NLP, which relates to algorithms that process (i.e., understand, output) human communications (e.g., human-written text, conversations, and the like). For example, NLP might be paired with a trained ML model such that a user can provide natural language input, that input can be processed into appropriate input data for a trained ML model, and then the input data can be provided to input nodes of the trained ML model. As another example, many NLP implementations use trained ML models for the purposes of translation, sentiment analysis, and the like. With that said, not all AI is NLP, and not all NLP is AI. For example, one might argue that an algorithm configured to remove stop words (e.g., the, is, are) from text is an NLP algorithm, though such an algorithm does not involve AI.

#### **Trends in Patenting AI**

There has been a veritable gold rush for AI-related patents in recent years, in no small part due to the rapid popularization and convenience of ML and deep learning. Along those lines, while the term artificial intelligence has been used in patents filed as early as 1970, modern developments—particularly, the rapid popularization of artificial neural networks that can be executed (albeit sometimes poorly) on commercial hardware—have resulted in tens of thousands of AI-related patent applications being filed per year. Moreover, many patent applications that are not outright directed to AI sometimes contain features that might be implemented using some form of AI.

This trend can be, from a patent practitioner's perspective, exciting but risky. On one hand, patent prosecutors find themselves busier than ever with AI-related work, and many find themselves specializing in the field to some degree. On the other hand, prosecuting AI-related patents is increasingly difficult, as the U.S. Patent and Trademark Office (USPTO) has seemingly applied more scrutiny to such applications.

#### Two Major Types of AI Inventions

You should be careful to distinguish the two key types of AIrelated inventions. The two different types require surprisingly different approaches, even if both might relate to AI at a high level.

Inventions Improving AI/ML Itself

The rarest, but perhaps most pure, form of AI-related invention is the improvement to AI itself. These inventions are characterized by relating to improvements to artificial neural networks and/or ML models themselves; the hardware capable of implementing such artificial neural networks and/ or ML models; the process by which nodes in those artificial neural networks and/or ML models are trained; or the like. It

is often easy to identify these inventions, as they typically involve complex math and lengthier disclosure calls and are often designed to be input- and output-agnostic (that is, an invention improving an artificial neural network is often designed to improve that artificial neural network in a variety of use cases).

As will be detailed below, these inventions can involve relatively straightforward prosecution. They typically land in an AI-related art unit, are typically examined by examiners familiar with the technology, and are somewhat less likely to face battles over subject matter eligibility under 35 U.S.C.S. § 101.

Inventions Using AI/ML

The more common, but more difficult, form of AI-related invention is the invention that uses AI or ML in some other field of endeavor. In other words, these inventions improve some other field of endeavor by, for example, replacing one or more steps of a process with AI. As an illustration, use of an ML model to improve video post-processing would likely fall into this category, as would use of an ML model as part of managing a control system.

These inventions have faced substantially more onerous prosecution difficulties in recent years, and some examiners at the USPTO have openly admitted that they have been instructed by their superiors to treat these inventions with greater scrutiny. These applications often end up in a non-AI-related art unit, are typically examined by examiners with limited knowledge of AI, and often face substantial pushback regarding subject matter eligibility under 35 U.S.C.S. § 101. Moreover, these applications often face quite strong rejections under 35 U.S.C.S. § 103, especially given the veritable gold rush for AI-related inventions that has resulted in a bevy of potential prior art.

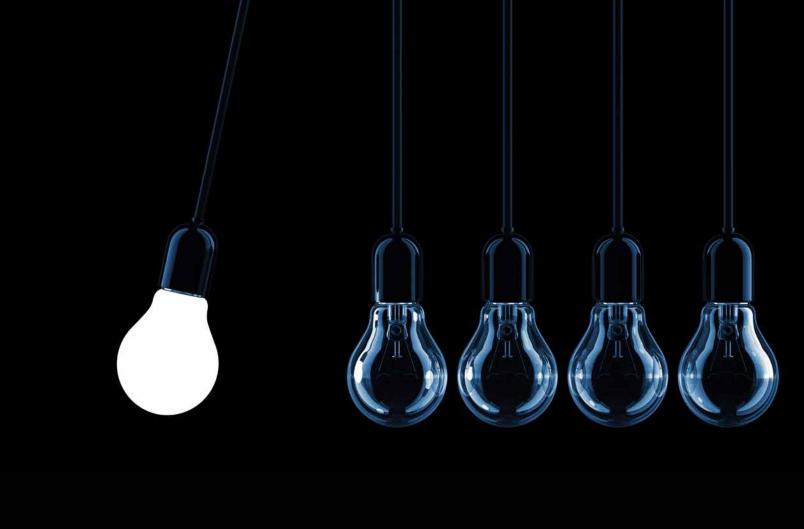
#### **Drafting Patent Applications Directed to AI**

Regardless of which of the types of AI-related invention you have, many aspects of the drafting process are largely similar, and mainly hinge on ensuring that AI is described in a way that cannot be misconstrued by an examiner or potential litigation target.

#### **Prior Art Searching and AI Inventions**

Given the current AI boom, the value of prior art searches cannot be overstated. This is especially the case for inventions using AI, as the internet is replete with so-called "wouldn't it be cool" discussions where technologists speculate as to how AI could improve various industries.

A strong prior art search for AI-related references often begins with a search of both internet sources and patent databases.



For the first type of invention (inventions improving AI itself), the best sources of potential prior art include research papers and other university publications, patent applications, and documentation websites. In contrast, for the second type of invention (inventions using AI), the internet as a whole often provides more possible prior art, particularly since many companies' efforts in using AI are reflected in marketing materials, and particularly since many technologists often post so-called wouldn't it be cool articles and discussions.

You should exercise caution when relying on inventors to know about potential prior art, especially for inventions using AI. Many companies and universities have strongly incentivized inventors to seek out ways to implement AI in existing processes, and this leads many inventors to inadvertently reinvent what others may have already explored or implemented. Of course, this does not necessarily mean that both sets of inventors invented the same solution. If you do discover such a problem, you should thoroughly investigate whether the approaches are truly the same, or if there are distinctions to the approaches that might be sufficient for a showing of novelty and non-obviousness.

Prior art searches are often a useful way to remind inventors that their inventions must necessarily be more than "do this, but with AI" and must be more than what others have invented previously. In particular, during disclosure calls, it can be helpful to openly discuss prior art issues with inventors and encourage them to explore their idea deeply. In the circumstance where you find a pertinent reference and want to encourage inventors to think about their invention more deeply, useful questions for those inventors include the following:

- What is different between your AI/ML approach and this reference?
- What difficulties did you experience in implementing AI/ML that are not remedied by this reference, but are remedied by your invention?
- If you chose a particular type of ML (e.g., using labeled or unlabeled data, using a particular type of model), what about it makes it appropriate for your problem?
- Is there something special about your input data or output data that is different from this reference?

#### **Specification Drafting for AI Inventions**

When drafting an AI-related application of either AI invention type, it is important to not reinvent the proverbial wheel. It is all but guaranteed that your inventors did not invent the concept of AI or ML models; as such, laborious re-explanation of these concepts often serves very little purpose and is often ignored by USPTO examiners. Practically speaking, this means that it can be helpful to provide a brief description of AI or ML in a patent application, but it might be somewhat wasteful to spend numerous pages laboriously re-explaining the concept to the USPTO.

The converse applies as well: you should not under-explain AI/ML in your patent application. A common mistake made by many attorneys drafting AI-related patent applications (especially the second type of invention, those involving inventions that use AI) is that they under-explain how AI actually works in their system, effectively treating AI as a black box that does little more than pop out desired answers upon demand. This can be fatal to the patent application, as it effectively invites a host of rejections. For example, it makes it easier for the invention to be rejected with prior art under 35 U.S.C.S. §§ 102 and 103, it makes the black box look similar to a human mind in a way that invites a 35 U.S.C.S. § 101 rejection, and could potentially garner rejections under 35 U.S.C.S. § 112. To avoid such issues, the specification should be drafted to clearly explain (to the extent possible) how the AI is implemented (e.g., how the ML model is trained, what type of model(s) are used, what sort of data is used in training, whether such data is labeled or not), what type of input is provided to the AI (e.g., an example of the data structure provided to the trained ML model), and what sort of output is expected from the AI (e.g., a Boolean value, some sort of selection within the data, some sort of percentage figure).

#### **Claim Drafting for AI Inventions**

In part due to the newness and perceived complexity of AI, many claims are unfortunately imprecise when describing it. This can be a fatal flaw in a variety of ways: it can invite extremely easy rejections under 35 U.S.C.S. § 103 and, in some cases, can make proving infringement quite difficult.

Recent trends in 35 U.S.C.S. § 101 caselaw suggest that courts are very willing to use 35 U.S.C.S. § 101 to invalidate patents that recite little more than the use of machine learning models to output data.¹ As such, claims should be drafted extremely defensively, and you should never assume that the recitation of machine learning, standing alone, will be sufficient to satisfy 35 U.S.C.S. § 101.

...due to the newness and perceived complexity of AI, many claims are unfortunately imprecise when describing it.

For the most part, you should not draft claims that describe AI as little more than a black box algorithm. For example, the following illustrative claim language, without more, arguably renders the ML model as little more than a black box algorithm:

determining, via a machine learning model, whether to trigger an alarm;

Even if the concept of triggering such an alarm based on ML output is entirely new, this structure makes a 35 U.S.C.S. § 103 rejection very easy for the examiner. After all, the examiner need only show that some reference teaches "determining ... whether to trigger an alarm" based on some algorithm and combine such a reference with a second reference indicating that ML models might be used instead of conventional algorithms. Stated differently, in circumstances where it is very easy to treat ML models as a conventional algorithm, examiners will do exactly that.

You should also avoid drafting claims that potentially describe AI performing steps that AI cannot do without additional actions (that is, AI magic). For example, the following illustrative claim language, without more, assumes that a trained ML model is capable of performing a step that it likely cannot do:

triggering, by a machine learning model, an alarm based on input data;

The key distinction here is that, while the output of an ML model certainly might be usable to trigger an alarm, the ML model itself likely cannot do so; at most, it probably outputs a Boolean or similar value indicating whether an alarm should be triggered, and that Boolean is likely used by some computer to ultimately cause triggering of the alarm.

Another potential mistake is to try to describe ML concepts in a single step. Cramming all aspects of an ML model into a single step (e.g., such that the active step focuses on output data, and the input and training steps are reduced to wherein clauses).



might be desirable in some circumstances, but it can downplay key aspects of the ML model that define over conventional algorithms. Put differently, explicitly reciting multiple active steps involving AI can help avoid an examiner hand-waving involvement of that AI in an overall process.

A preferred approach is to describe AI in a way that contextualizes it and that involves steps that are unique to AI. For example, in the context of an ML model, it can help to include as many of the following steps as possible:

- 1. Training an ML model. As discussed above, ML models are a form of AI that can be distinguished from conventional algorithms in that they are trained in a variety of ways (e.g., supervised or unsupervised learning, using labeled or unlabeled data). Describing how these ML models are trained helps underscore the fact that the ML models are not conventional algorithms.
- 2. Providing formatted input to the trained ML model.

  Once the ML model is trained, it can receive data (e.g., via input nodes). It can be very beneficial to describe this step explicitly and to provide sufficient detail regarding the particular format of the input data, as doing so can be valuable ammunition against a 35 U.S.C.S. §§ 102 and 103 reference relying on a particular algorithm.
- 3. Receiving particular output from the trained ML model.

  After input is provided, a trained ML model can provide some form of output, such as an identification of some subset of the input data, a Boolean value, or the like.

  Remember, a trained ML model is not magic. The output

- from such a model is typically not a lofty concept (e.g., a detailed natural language analysis of why some input data is fraudulent), but is instead usually more discrete and objective (e.g., a likelihood, reflected by a percentage value, that data is similar to previous fraudulent data).
- 4. Utilizing the output. Output from the ML model should rarely be the last step of the claims, as this would mean that the claims merely culminate in receipt of data without contextualizing why such data is useful. Instead, it can help to do something with the output data above and beyond receiving/displaying it. Where possible, it can be particularly helpful to show how the output data causes some real-world change: triggering of an alarm, modification of speed, movement of some object, etc.
- 5. Retraining the ML model. Recent interviews with numerous examiners across numerous art units suggests that this is the new gold standard for strong ML-based claims. Specifically, examiners like to see that an ML model is further trained based on later activity in a claim, such as user feedback regarding whether the ML model's output was correct. This effectively creates a feedback loop using the ML model that is far beyond what is doable with conventional hand-programmed algorithms, making it quite persuasive against a 35 U.S.C.S. §§ 102 and 103 rejection. Moreover, this provides further ammunition against a 35 U.S.C.S. § 101 rejection, as it allows you to argue that one benefit of the claims is that the ML model—that is, a computer-implemented algorithm—is improved over time.

Given the above, a better way to rewrite the above claim step might be as follows:

- generating a trained machine learning model by training, using training data comprising a history of alarms and associated operating status data, a machine learning model to output, based on input operating status data, an indication of whether an alarm should be triggered, wherein training the machine learning model comprises modifying one or more weights of one or more nodes of an artificial neural network;
- providing, to the trained machine learning model, input data comprising current operating status data;
- receiving, from the trained machine learning model, output data, based on the input data, comprising a value that indicates that an alarm should be triggered;
- **4.** triggering, based on the output data, the alarm;
- **5a.** receiving, via a user interface, user input associated with the alarm; and
- **5b.** further training, based on the user input, the trained machine learning model.

Note that the above is rough and illustrative, and might be modified in a variety of ways based on the particularities of the application. For example, the above claim is very broad regarding the retraining step—it might be preferable to be far more specific in certain circumstances. As another example, it might be desirable in some circumstances to broaden the "generating" step, and in any event some examiners might object to the structure of the "generating" step (particularly the description of what the ML model is being trained to do) as possibly unclear or conclusory.

In addition to the above, prior to drafting a claim directed to any form of AI, it can be helpful to review Example 39 of the USPTO's Subject Matter Eligibility Examples: Abstract Ideas and to, where possible, emulate the structure and/or approach of the claim. This example is particularly valuable as a defense against a 35 U.S.C.S. § 101 rejection, and similarities to the example claim in question can help persuade an examiner to withdraw such a rejection.

#### Special Consideration—Multiple ML Models

For the most part, a single ML model is trained to provide specific output based on specific input. As such, absent extraordinary circumstances, it is generally a mistake to describe a system whereby the same ML model is expected to perform entirely different tasks (e.g., determine whether an alarm should be triggered and then identify dogs in photos).

Since ML models tend to be task-specific, it is not uncommon for inventions to use multiple ML models, for example, different models for different parts of an overall process.

In such circumstances, you should be careful to distinguish between these models in the claims. Use of ordinals such as first training data and second training data, or first output and second output, can help immensely. Inadvertently suggesting that two different ML models provide the same input, the same

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# PATENT OFFICE ACTION RESPONSE RESOURCE KIT

Examiners also commonly evaluate inventions involving AI by removing AI-related portions of the claims and evaluating whether the remainder of the claim is sufficiently technical. For example, examiners sometimes assume that AI steps could be replaced by a human being and evaluate whether . . . the remainder of the claim recites anything more than conventional computing hardware.

output, and/or are trained using the exact same data could, in extreme circumstances, result in claims that are, in practice, easy to design around.

Nonetheless, use of multiple ML models can be valuable ammunition against a wide bevy of USPTO rejections. Even if an examiner can find a reference describing use of AI in a general sense, the use of multiple ML models is much less likely to be described in such a reference. Moreover, the use of multiple ML models can, in the context of 35 U.S.C.S. § 101 rejections, be valuable storytelling to explain why the claims are far more than a rudimentary implementation of a mental process.

#### Special Consideration—Al as an Inventor

One common topic among the technology world at large is the idea that technology might itself invent and create. At the present moment, this concept is largely theoretical, though it has already been litigated.

35 U.S.C. S.§§ 100–101 define an inventor as someone who "invented or discovered the subject matter of the invention." The U.S. Court of Appeals for the Federal Circuit has, when considering this requirement, already concluded that an AI cannot be an inventor, and instead all inventors must be natural persons. As of the writing of this guidance, it appears that plaintiff Thaler is considering whether to petition for a writ of certiorari to the Supreme Court regarding this issue. This ruling is approximately in line with the U.S. Copyright Office's recent guidance on the registration of AI–generated copyright, which generally maintains that copyright protects only the material that is the product of human creativity.<sup>3</sup>

Notwithstanding a potential overturning of the *Thaler* decision by the U.S. Supreme Court, you should exercise extreme caution when human inventors assert that an AI was an inventor. Practically speaking, such assertions are often based on the idea that an AI was somehow used by the inventor(s) during the process of invention, meaning that the AI was little more than a helpful tool used during ideation. In the same way that an integrated circuit designer is not required to credit

their microchip design software for helping them design a new processor, an inventor is not required to credit AI as a co-inventor simply because it was used at some stage of the ideation process.

In short, while inventors might be excited about the idea of AI being a co-inventor from a novelty perspective, this assertion should be discouraged because it is likely inaccurate and could potentially cause the patent application to be rejected.

#### **Prosecuting Patents Directed to AI**

While AI inventions were once somewhat easy to prosecute before the USPTO, they have become increasingly difficult to prosecute in recent years. Interviews with examiners indicate that they may have explicit instructions to treat AI-related inventions with increased scrutiny, which is likely a trend borne of the aforementioned gold rush for AI-related patents. In turn, for many AI-related inventions (especially those of the second type, inventions that use AI), you should expect a battle.

#### **Handling Subject Matter Eligibility Rejections**

One of the most common and perhaps most frustrating rejections faced by AI inventions is a 35 U.S.C.S. § 101 rejection. These rejections can be extremely difficult to address, in no small part because some examiners use them as a way to prevent allowance of a patent even for the narrowest of claims, and also because at least one court has ruled that broadly-recited machine learning claims are invalid under 35 U.S.C.S. § 101.4

One of the biggest issues facing AI-related inventions is definitional: AI is generally designed to mimic human thinking, and courts have explicitly held that mental processes, including "concepts performed in the human mind (including an observation, evaluation, judgment, opinion)" are abstract ideas that satisfy the first prong of the USPTO's eligibility step 2A for a 35 U.S.C.S. § 101 rejection. In other words, many examiners reviewing AI-related inventions will consider the invention in view of steps that could be performed in the human mind. This approach often dooms AI-related inventions to at least a



perfunctory 35 U.S.C.S. § 101 rejection, particularly where the recitation of an AI algorithm in a claim could be analogized to the involvement of a human being.

Examiners also commonly evaluate inventions involving AI by removing AI-related portions of the claims and evaluating whether the remainder of the claim is sufficiently technical. For example, examiners sometimes assume that AI steps could be replaced by a human being and evaluate whether, in view of such a substitution, the remainder of the claim recites anything more than conventional computing hardware. Such an analytical approach can be devastating to many AI-related inventions, as most implementations of AI (e.g., ML models) are designed to be run on standard commercial hardware.

In turn, if an application claims AI doing nebulous, human-like thinking without sufficiently being rooted in a technological environment, that application will likely be rejected under 35 U.S.C.S. § 101 both because (1) the AI can be analogized to a mental process performed by a human being and (2) the remainder of the claim recites little more than conventional

computing hardware. Traversing such 35 U.S.C.S. § 101 rejections often hinges on how well claims (1) describe AI in a way that excludes human beings and conventional algorithms and (2) define AI in the context of an overall technological environment.

For inventions involving improvements to AI itself (the first type of AI invention discussed above), overcoming 35 U.S.C.S. § 101 is often quite straightforward: the claims must clearly indicate how specific steps improve the functioning of AI itself, rather than some overall decision-making process. In the context of ML, claim amendments intended to overcome a 35 U.S.C.S. § 101 rejection might preferably be focused on specifically describing aspects of the ML model (e.g., nodes, weights), how those aspects are interrelated (e.g., specific mathematical functions, specific training approaches), and how the overall process improves the functioning of the ML model (e.g., by making the model more accurate, faster, more efficient, or the like).



For inventions using AI (the second type of AI invention), the process becomes significantly harder. The AI must generally be:

- Used in a manner that cannot be readily analogized to human thinking or simplistic algorithms
- Placed into an overall technological context

Avoid Analogy to Human Thinking and Simplistic Algorithms

To explain how claims directed to inventions using AI are used in a manner that cannot be readily analogized to human thinking or simplistic algorithms, it is particularly helpful to focus on the unique technical aspects of AI. Examples in the ML context include the weighting of nodes in an artificial neural network, the retraining of an existing ML model, and the deploying of an already-trained ML model to different computing devices. After all, while it might be easy to argue that a human mind can be trained to identify dogs in photographs, it can be quite difficult to argue that a human mind can weight nodes using training data, use those nodes to identify dogs, and then re-weight those nodes based on subsequent indications of whether the dogs were correctly identified.

To explain how claims directed to inventions using AI are used in a manner that cannot be readily analogized to human thinking or simplistic algorithms, it is particularly helpful to focus on the unique technical aspects of AI.

Place Claims in Technological Context

To place claims directed to inventions using AI in an overall technological context, it often helps to focus on steps both preceding and following use of AI. For example, input data provided to an AI should be placed into context: it can help to explain what generated the input data, what the input data contains, how the input data was preprocessed for consumption by the AI, and so forth. As another example, output data generated via an AI should also be placed into context: the claims should clearly detail how the output data is being subsequently used, even if such use is little more than output via a user interface.



Where possible, it also helps to reference Example 39 of the USPTO's Subject Matter Eligibility Examples: Abstract Ideas. Admittedly, this approach has limits. The USPTO places significant weight on the fact that the example claim involves an "iterative training algorithm" involving two stages of neural network training to improve neural network accuracy by minimizing false positives, meaning that examiners might not be persuaded that this example applies to claims that do not involve similar, multistep algorithm improvements. All the same, Example 39 is a valuable weapon against stubborn examiners who refuse to concede the subject matter eligibility of AI as a whole.

#### Strategies to Overcome 35 U.S.C.S. § 101 Rejections

In reality, overcoming a 35 U.S.C.S. § 101 rejection of claims directed to an AI-related invention often involves substantial amounts of storytelling, rather than technical argument. Most examiners are preliminarily quite skeptical of AI-related inventions and tend to be much more comfortable with an invention once they understand its overall context. Along those lines, helpful strategies include the following:

- **Conduct examiner interviews.** Ideally, these interviews should not be formulaic (e.g., let's walk through the subject matter eligibility analysis step-by-step) but thematic (e.g., this is why this AI invention is new, cool, and computer-oriented). These interviews are also ideally conducted with every office action, and ideally after receiving an office action and preparing remarks but before any amendment(s)/remarks are filed. This approach builds a friendly rapport with the examiner that allows you to make a persuasive case and understand the examiner's concerns more fully without turning prosecution into an aggressive battle of briefs.
- **Do not waste time on weak arguments.** Chances are, examiners will not deviate from the general concept that AI could be performed in the human mind, and thus will not be willing to budge under the first prong of the USPTO's eligibility step 2A for a 35 U.S.C.S. § 101 rejection. Rather than nitpicking this argument, it is much better to remind the examiner that "[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas," and that the Supreme Court has cautioned "to tread carefully in construing this exclusionary principle lest it swallow all of patent law."6
- File 37 C.F.R. § 1.132 declarations. In certain circumstances, it can be helpful to have an expert or inventor prepare an affidavit or declaration under 37 C.F.R. § 1.132. These declarations, admittedly somewhat rare during conventional patent prosecution, can be helpful to address rejections and provide a venue for a non-attorney to present persuasive arguments against a rejection. For example, if an examiner expresses skepticism regarding the idea that an AI could not be replaced by a human being, and in circumstances where such an explanation is not readily available in the specification, it can be helpful to have an expert, inventor, or other third party prepare and file a declaration explaining why the AI could not be replaced by a human being.

#### **Strategies for Addressing Prior Art**

A large swath of references in the computer science and electrical engineering fields already disclose AI, though the quality of such disclosures can vary widely. For instance, it is not uncommon for many patent applications to include generic phrases asserting the use of ML models or AI, though the applications rarely explain how such a use would in fact be implemented. Examiners commonly use these references because such broad references to AI can provide a justification for combining those references with other AI-related references under 35 U.S.C.S. § 103.



Simply put, inventions that boil down to little more than "do this, but with AI" are not likely to survive art rejections. Even if an examiner cannot find some reference in a particular field that explicitly discusses the use of AI (or ML or deep learning), the examiner could likely argue under 35 U.S.C.S. § 103 that a pertinent algorithm could be replaced with AI of some kind.

In the context of ML, there are often a number of different strong strategies for overcoming art-based rejections:

- ML models can produce widely different results. Examiners nonetheless often argue that ML models are equivalent despite being trained in very different ways. Do not allow examiners to make this assumption. After all, your approach might be similar, but might be sufficiently different so as to result in significantly more accurate output, it might be faster, or the like. As a simple example, if your claims involve training an ML model based on a history of real-life network outages and a history of applications executing on a server, an ML model trained based on documentation of those applications would not be the same.
- Focus on the input and output data. Perhaps obviously, different formats of input to an ML model can produce different forms of output. Examiners often overlook this distinction, instead focusing on the net result of ML. For example, examiners commonly argue that different ML models directed to virus detection are the same, even when the ML models consider widely different variables and provide extremely difficult output. Make sure that you explicitly refute any assertion that two different types of input or output are analogous.

■ **Focus on context.** For the second type of AI invention (inventions using AI/ML), it is particularly important to focus on the overall context via which AI/ML was used. In the context of ML models, it can be particularly helpful to emphasize how the ML models' output is used: for example, how it is used to effectuate some change. Where applicable, it can be especially helpful to concentrate on retraining steps, which help focus the examiner not only on the output itself, but how the output is ultimately used.

It is not unusual for the above arguments to require significant claim amendments, even when the examiner's art is weak. As with many other inventions, it can be helpful to regularly check in with inventors to confirm that amendments remain faithful to the original invention.

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RESEARCH PATH: Intellectual Property & Technology > Patents > Practice Notes













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# Artificial Intelligence Investment: Risks, Due Diligence, and Mitigation Strategies



This article discusses key considerations in mergers and acquisitions (M&A) due diligence in the context of artificial intelligence (AI) technologies.

#### GIVEN THE INCREASING PREVALENCE AND APPLICATION

of AI technology in many industries, purchasers of and investors in businesses across industries and sectors must be prepared to address AI-related issues, including the investigation, evaluation, and assessment of technology companies that own, provide, and offer AI solutions, as well as companies that use or incorporate AI technologies in their businesses, services, and operations.

The field of AI has witnessed exponential growth over the past decade, capturing the attention of investors seeking opportunities in this transformative technology. This article explores the AI investment landscape, including trends in AI funding and M&A, the key players in the market, benefits and risks associated with AI investments, the role of data in AI systems, the legal and regulatory framework surrounding AI, the importance of due diligence with AI investments, and the role and impact the purchase agreement has with respect to transactions in this field.

#### The AI Market Landscape

The investment landscape surrounding AI is experiencing remarkable growth and presents numerous opportunities for investors. Over the past decade, AI funding has accounted for approximately 10% of global venture capital dollars, signaling the immense interest and potential returns associated with investing in this transformative technology. Large tech-focused companies are actively seeking opportunities to acquire AI companies to enhance their capabilities and expand their market presence. Additionally, venture capital and private equity firms have recognized the potential of AI and have actively invested in AI-focused start-ups to capitalize on their growth potential.

As with all M&A transactions, there are significant benefits and risks to consummating a transaction involving an Al company, but the dynamic, revolutionary nature of the Al field presents unique cost-benefit and risk considerations for Al-related investments. Benefits associated with Al investments include the possibility of earning high returns; disrupting various industries including healthcare, finance, manufacturing, and transportation; and creating competitive advantages. Risks associated with Al investments include inherent volatility and rapidly changing market conditions; technological challenges (including technical glitches, algorithmic biases, risk of reputational harm, data privacy concerns, and cybersecurity threats); regulatory and ethical concerns; and viability and longevity issues.

# Role of Data in Al Systems and Importance of Data Quality and Quantity

Data is the foundation of most AI systems and powers AI algorithms and enables them to learn, make predictions, and generate insights and content. The quality and quantity of input data are critical factors in the effectiveness and accuracy of AI systems:

- Data quality. The quality of data directly impacts the reliability and accuracy of AI outputs. Biases or inaccuracies in the data can influence the AI's predictions or decisions, leading to undesired outcomes. Therefore, it is crucial to ensure data quality through proper data cleansing, validation, and addressing any biases present in the data set to avoid unlawful or undesired discrimination.
- **Data quantity.** Machine learning and large language models need exposure to a widely representative data set to learn effectively and make accurate predictions. A diverse and representative data set enables AI to establish trends, patterns, and correlations across different situations and demographics. Having a robust and extensive data set contributes to the generalization capabilities of predictive and generative AI systems.

It is important to note that the quality and quantity of data are not the only factors that determine the performance of an AI system. In addition to striking a balance between data quality and quantity, it is essential to understand how all components of the AI system operate and what adjustments can be made that impact overall performance. For example, in an AI system that performs object recognition, adjustments to the hardware and software used to capture video of the surrounding environment may substantially impact the performance of the AI component of the overall system. Similarly, an AI-powered chatbot may utilize a filtering system to prevent inappropriate content from being fed into the bot by users. Adjustments to the filter can vastly impact the desired performance of the chatbot.

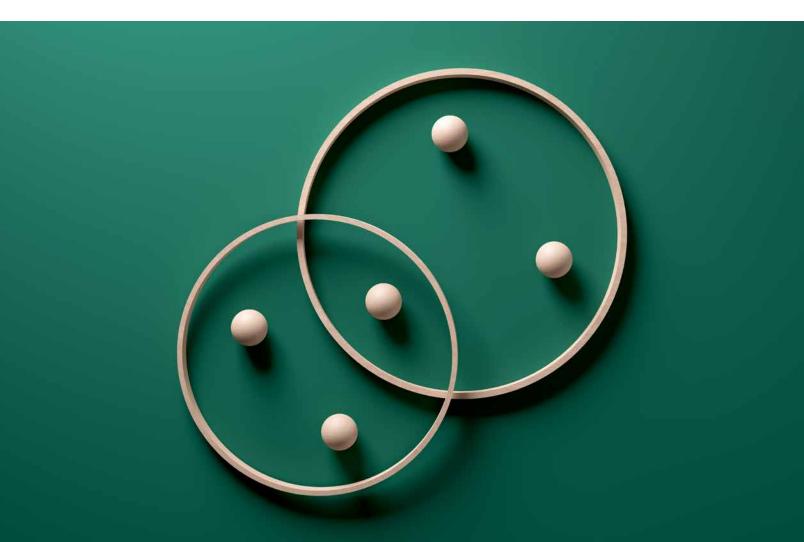
Furthermore, the AI system's ability to process data from a wide variety of sources or for a wide variety of customers may further affect the performance of an AI system. As many start-ups and early-stage companies have a limited number of customers, a common significant challenge they face is scalability as they onboard newer customers that have varying levels of data quality and quantity. Understanding what non-data components exist in an AI system, the ability of the AI system to scale, along with the quality and quantity of data used to train the AI system is imperative for developing a holistic understanding of the AI system and its risk profile, which impacts the risk profile of the company providing the AI system.

# The Importance of Due Diligence in AI Investments and Acquisitions

As investors consider investing in or acquiring companies providing AI systems, intellectual property (IP) and M&A practitioners should be aware of some of the specific risks inherent in such companies. Due diligence plays a critical role in AI investments and acquisitions by providing a comprehensive understanding of the target company's AI capabilities, intellectual property, market potential, legal compliance, and risk exposure. To address these subjects, the fundamental goals of the due diligence process include:

- Risk identification and mitigation. By thoroughly assessing the target company's use of AI, investors can uncover risks related to the AI technology, data, and intellectual property rights; compliance with the emerging AI-related regulatory schemes; and market competition. Once risks are known, they can be mitigated before closing through traditional means, including in-depth testing of the technology, integration planning, or mandating remediation of known issues prior to closing, or within the purchase agreement itself through indemnification obligations, insurance, and purchase price offsets.
- Value assessment. By evaluating the relevant AI technology, market potential, scalability, team expertise, the exclusive

- or proprietary nature of their data sets, the quality of their customers (in a B2B market) or users (in a B2C market), and financial performance, investors can gauge the company's growth prospects and its ability to deliver long-term value.
- Investment objective-based decision-making. Identifying necessary information relating to the target's use and ownership of AI to make informed investment decisions enables the buyer to align investment objectives with the target company's capabilities, market dynamics, and potential risks, increasing the likelihood of a successful investment.
- Negotiation and deal structuring. Due diligence findings frequently influence the negotiation and deal structuring process. The findings relating to Al can provide leverage to negotiate more favorable terms, such as purchase price adjustments, restrictive covenants against the key personnel involved in the development of the technology, contingent payments, or representations and warranties related to key areas of concern uncovered during the due diligence process and corresponding indemnification rights.
- Post-acquisition integration. Due diligence findings facilitate effective post-acquisition integration planning. Understanding the target company's Al-related technology, data infrastructure, and talent allows investors to develop integration strategies that maximize synergies and minimize disruptions.



Due diligence in AI investments requires technical expertise in AI systems, machine learning, neural networks, and data processing. Evaluating the technical architecture, performance, scalability, and potential limitations of the AI solution requires the involvement of experts who understand the intricacies of AI technologies. Understanding AI technology is crucial for navigating the AI investment landscape effectively.

#### **Due Diligence Approach for AI Transactions**

As discussed above, due diligence is a crucial step in the AI investment landscape that allows investors to thoroughly assess the potential risks, opportunities, and value of AI companies. Prior to conducting due diligence on an AI company, an investor must establish the objectives of their due diligence and determine the specific areas of focus and key considerations important to the specific AI investment that they are evaluating. The investor must then assemble a multidisciplinary team that has expertise in each of the focus areas being evaluated. Having a multidisciplinary team of experts in technology, regulatory law, emerging company investment, and intellectual property law that can provide input on various aspects of the due diligence process will allow the investor to make an informed investment decision. In this section, we will provide a step-by-step guide to conducting due diligence for Al investments and discuss the importance and role of due diligence in Al acquisitions.

#### **Expertise and Qualifications of the Due Diligence Team**

Due diligence in Al investments requires expertise in data ownership, IP fundamentals, privacy requirements and rules, and a foundational understanding of the technical aspects of Al.

Data Ownership, Management, Integrity, and Privacy

Expertise in data ownership, management, integrity, and privacy is vital to assess how the AI company collects, handles, protects, and verifies the authenticity of its or its customers' data. Proficiency in identifying and evaluating data sources, and data governance frameworks, as well as the company's data validation and quality control processes, are key to understanding the value and risks associated with the company's AI models and products. This also includes examining any potential instances of fabricated or manipulated data, such as synthetic data generation to falsify user base or misleading outputs. Understanding data ownership rights, compliance with relevant laws, guidelines, regulations (such as the European Union's (EU) General Data Protection Regulation (GDPR)¹ and U.S. state privacy laws including the California Consumer

Privacy Act of 2018 (CCPA),<sup>2</sup> as amended by the California Privacy Rights Act of 2020),<sup>3</sup> and data governance frameworks ensures that potential risks and liabilities related to data are identified and addressed.

IP and Patents

Understanding the company's patents, copyrights, trade secrets, and commercial and licensing agreements helps identify competitive advantages of the company. For many AI targets, their customers and the contractual terms relating to the use of customer data by the AI system in their customer agreements can be important signals for the company's valuation and technology.

AI-Specific Regulations

Familiarity with Al-specific regulations and guidelines is important to ensure the Al company's compliance with ethical, legal, and regulatory requirements. Since Al technology is a relatively new field, official Al-related laws have not yet been established, at least in the United States. However, the National Institute for Standards and Technology (NIST) has issued technical standards for the development, adoption, and governance of Al.<sup>4</sup> The Federal Trade Commission (FTC) has also signaled<sup>5</sup> that it will be increasing oversight of Al-related companies, and the Food & Drug Administration has stated<sup>6</sup> that it is planning to regulate Al-based healthcare technology. Therefore, it is important for Al companies and their counsel to be aware of and monitor the latest developments in Al-specific regulations as government agencies begin to convert their initial guidance into codified legislation.

Technical Understanding of Al

Due diligence in AI investments requires technical expertise in AI systems, machine learning, neural networks, and data processing. Evaluating the technical architecture, performance, scalability, and potential limitations of the AI solution requires the involvement of experts who understand the intricacies of AI technologies. Understanding AI technology is crucial for navigating the AI investment landscape effectively. AI encompasses various technologies, including machine learning and, more recently, large



language models, with applications spanning speech recognition, virtual agents, content creation, cyber defense, and more. Data quality and quantity play integral roles in AI systems, with high-quality and representative data being key to accurate predictions and reliable insights. By grasping the fundamentals of AI technology and recognizing the importance of data, investors and their advisors can make informed decisions and leverage the potential of AI in their investment strategies.

Adverse Events, Bias, and Discrimination

Due diligence in AI investments requires auditing the AI systems for a variety of issues, including identifying if there have been any reports of adverse events that caused harm or could have potentially caused harm to users. The due diligence should seek to uncover any information about the AI systems exhibiting bias or discriminatory behavior or tendencies. The due diligence team should determine if the AI system has undergone testing and validation, and if there are mechanisms in place for ongoing monitoring and adjustments to minimize biases and ensure fair and ethical outcomes.

#### Interaction between Technical and Legal Due Diligence

Effective due diligence for Al investments requires close interaction between technical and legal due diligence efforts. The technical due diligence assesses areas such as the Al company's technology infrastructure, algorithms, data quality, scalability, and performance, while the legal due diligence focuses on areas such as regulatory compliance, IP rights, contractual rights, and potential legal risks.

The interaction between technical and legal due diligence is crucial in identifying and addressing risks and ensuring that both the technical and legal aspects of the Al investment are thoroughly evaluated.

Technical due diligence findings, such as data ownership, management, integrity and quality issues, software architecture, and algorithmic biases, may have legal implications related to data ownership, data privacy, regulatory compliance, or potential product liability. Conversely, legal due diligence findings, such as insufficient data usage rights, inadequate IP protection, or noncompliance with Al-specific or industry-specific regulations, may impact the technical viability and scalability of the Al solution. The collaboration between technical and legal experts helps to ensure a holistic assessment of the Al investment and facilitates a comprehensive understanding of the risks, opportunities, and mitigation strategies.

The due diligence process for AI investments is a comprehensive and multifaceted endeavor that requires a step-by-step approach, multidisciplinary expertise, and targeted questioning. The unique characteristics of AI companies, such as their intangible assets and value proposition, necessitate a tailored due diligence approach. The interaction between technical and legal due diligence is crucial in ensuring a holistic evaluation of the AI investment. By asking relevant and targeted questions, investors can extract key information, uncover potential risks and opportunities, and make well-informed investment decisions in the dynamic AI investment landscape.

#### **Key Al-Related Due Diligence Activities**

Given the complexities associated with AI investments, conducting thorough due diligence is paramount. During due diligence, buyers and investors should undertake the following activities:

- Assess the technology and IP of AI companies
- Assess the qualifications, experience, and track record of the Al company's team
- Identify legal and ethical considerations
- Assess operational, technological, regulatory, and market risks
- Identify and mitigate potential investment risks

#### Assessing Technology and IP Rights in AI

The legal and regulatory framework surrounding IP rights with respect to AI is rapidly evolving as governments and regulatory bodies grapple with the complexities and implications of Al technologies. The buyer team will need to have expertise in these areas to properly investigate and evaluate the target's AI-related IP rights. The buyer's due diligence should consider the following when investigating and evaluating a target's technology and Al-related IP.

#### Technology

The underlying technology of the AI system is typically the most valuable asset of an Al company. Therefore, the due diligence team should ensure that they have appropriately evaluated the system's performance, reliability, and functionality. The due diligence team should evaluate the accuracy, availability, and suitability of the Al system for its intended purposes, as well as the strength of its technology and risk of obsolescence in view of technological advancements. Separately, they should ask for any reports on adverse performance and ensure that the company has appropriate mechanisms in place that would allow the due diligence team to evaluate changes made to the AI system in response to such adverse events.

#### **Patents**

The challenges of patenting AI inventions across different jurisdictions that have varying standards are numerous and can pose significant hurdles for AI companies seeking to protect their inventions. One major obstacle arises when patent applications are drafted at an overly broad or high level, which can lead to the inventions being classified as mental processes or organizing human activity, both of which are generally considered patent ineligible. For inventions to be classified as patent eligible, the patent application directed toward the invention should provide a detailed technical explanation of the invention while still maintaining a level of breadth that enables the detection of potential infringement. Moreover, certain jurisdictions have different standards for patent eligibility of Al inventions. Navigating the complexities across different jurisdictions requires experienced counsel with a deep understanding of AI technology and the intricacies of patent law in each jurisdiction.

#### **Related Content**

For a request list template to be used in a software due diligence investigation during an acquisition, see



#### SOFTWARE DUE DILIGENCE REQUEST LIST

For a high-level overview of AI and machine learning and tips for drafting a patent application directed to inventions relating to AI and machine learning, see



#### PATENT PROTECTION FOR ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

For a comprehensive explanation of the rules and regulations for the granting, enforcement, and limitations of patents, see



#### **PATENT FUNDAMENTALS**

For additional information on the intersection of AI and copyright law, see

GENERATIVE AIS CHALLENGED BY **COPYRIGHT AND RELATED RIGHTS: A** COMPARATIVE APPROACH IN EUROPEAN AND U.S. **LAW** 

For practical advice relating to the myriad key principles in copyright law, see



#### **COPYRIGHT FUNDAMENTALS**

For an in-depth discussion of trade secrets, see



#### TRADE SECRET FUNDAMENTALS

For assistance in protecting intellectual property assets with various forms of insurance, including commercial general liability coverage, specialty intellectual property insurance policies, and customized policy language, see

**IP PRIMER FOR IN-HOUSE COUNSEL: INSURANCE COVERAGE FOR INTELLECTUAL** PROPERTY-RELATED RISKS

For more information on the use of representations and warranties insurance (RWI) policies in M&A, see



#### **REPRESENTATIONS AND WARRANTIES INSURANCE**

For guidance in assisting your client in negotiating and acquiring the most appropriate RWI policy, see



**REPRESENTATIONS AND WARRANTIES INSURANCE POLICY SELECTION** 

If the buyer will be onboarding employees of the seller through the transaction, the due diligence team should investigate and assess the qualifications, experience, and track record of the seller's AI-related team.

#### Copyright

Copyright law protects original works of human authorship, which creates challenges in determining whether AI-generated content is subject to copyright registration and protection. In March 2023, the U.S. Copyright Office provided guidance stating that content generated solely by a human-provided prompt typically would lack the requisite human authorship. However, where Al-generated content is selected or arranged in a sufficiently creative way, or an individual materially modifies the content with original creativity, the human-authored elements may be subject to registration and protection. The EU<sup>8</sup> and the United Kingdom<sup>9</sup> each have separate standards for works that are eligible for copyright protection as well and therefore, for cross-border deals involving generative Al solutions, you should consult counsel that understands these varying requirements across all applicable jurisdictions to provide the necessary risk assessment and guidance.

#### Trade Secrets

Al-related know-how, methods, processes, and technology typically constitute valuable trade secrets, which can be virtually any information that has commercial value due to, at least in part, its confidentiality. Protecting trade secrets requires implementing appropriate security measures to prevent unauthorized access to or disclosure of proprietary Al algorithms, training data, or other confidential information. The due diligence team should fully investigate the extent, confidentiality, and protection of such trade secrets, including asking appropriate questions to understand whether the company has sufficient policies in place to help ensure trade secret protection.

#### Data Rights

The rights in and ownership of data used to train AI models is a critical consideration. In many cases, Al models rely on vast amounts of data to function effectively. The due diligence team should investigate and assess the target's data use and ownership rights for data used to train or otherwise develop and operate AI systems

to ensure the existence of such rights to avoid risks relating to potential infringement of third-party rights in or relating to the data. In addition, the due diligence team should review whether the target has sufficient rights to grant its customers or consumers the rights to any output generated by the AI systems.

#### Collaborative Research and Licensing

Collaboration and licensing agreements are common in the Al industry, allowing entities to share resources, technology, and expertise. These agreements define the rights and obligations of the parties involved, including the ownership and licensing of IP rights in the AI technologies developed through collaboration. The diligence team should obtain copies of all material agreements in this area, and assess the target's rights and obligations, including ownership, licensing, assignability, data use, and similar items. This is particularly true for drug discovery companies partnering with pharma as well as other companies that rely on licensed data to train their AI models.

#### Assess the Qualifications, Experience, and Track Record of the Al Company's Team

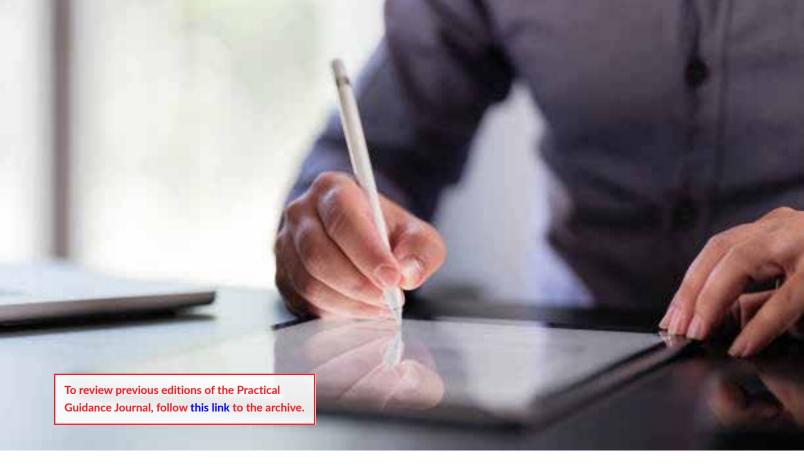
If the buyer will be onboarding employees of the seller through the transaction, the due diligence team should investigate and assess the qualifications, experience, and track record of the seller's Alrelated team.

#### Qualifications and Expertise

Identify and evaluate the qualifications and capabilities of the relevant AI team members. For example, do they have degrees in relevant fields such as computer science, statistics, data science, machine learning, or AI? Do they have experience in the relevant industry? Request information regarding industry-recognized certifications (offered by industry organizations and many of the big tech vendors) in data science, software engineering, AI, and machine learning. Evaluate whether the team is essential to the company and whether there are sufficient mechanisms in place and documentation available to ensure that all of the material information the team used to develop, operate, and maintain the Al systems will be available to a buyer.

#### Collaboration

The team's collective experience is as critical as the individual skills of its members. What kinds of problems have they solved in the past, and how does this relate to their current AI operations? How long has the team been working together? What significant projects have they recently completed? Have they successfully built and implemented AI technologies before? Look for indicators of team cohesiveness, such as low staff turnover and strong leadership.



#### **Products**

Evaluate the team's expertise in relation to the AI products or services that the target company provides. The team's skills should be in line with the technology being developed or maintained. What AI solutions and technologies have they worked on and in which industries? The team should be proficient with the AI tools they are developing and using and have an understanding of the industries where the AI product or service will be utilized. Watch out for Al companies that have teams comprised of data scientists and software developers but lack members that have industry knowledge or expertise in the field where the AI solution will be deployed.

#### Innovation and Thought Leadership

How innovative is the team? Are they proactive or merely reactive to technology changes? Look for signs of innovation, such as research papers, patents, conference presentations, or contributions to open-source projects.

#### Regulatory Compliance

In addition to due diligence into the organization's overall regulatory compliance with respect to AI, do the individual team members express a recognition and appreciation for legal compliance, or are they lackadaisical or overly aggressive?

#### Contractual Protections

It is important that the team members sign appropriate contractual agreements in favor of the company, such as a confidential information and inventions assignment agreement, to assign all IP and other proprietary rights created by an employee during their employment to the company.

#### Identify Legal and Ethical Considerations Applicable to AI Technologies

As AI technologies continue to advance and impact applications in various industries, lawmakers and regulators are actively working to address the legal and ethical implications surrounding AI. While the legal landscape for AI is still evolving, several key areas of regulation have emerged.

#### Privacy and Data Protection

Data is a crucial component of AI systems, and the collection, storage, and processing of personal data raise privacy concerns. Led initially by the CCPA, several other U.S. states have enacted data privacy and security laws. These laws may impact the use of Al for automated decision-making and when processing personal information. Similarly, the GDPR indirectly regulates the use of AI, and the EU recently passed a dedicated Artificial Intelligence Act. 10 To varying degrees, these regulations impose obligations on Al companies to obtain consent, ensure data security, and provide transparency in data processing.

#### Bias, Discrimination, and Fairness

Al systems can be susceptible to biases that can perpetuate discrimination or unfair treatment. Several jurisdictions have started to develop regulations to address bias and fairness concerns in Al systems. For instance, New York City<sup>11</sup> prohibits discriminatory use of Al algorithms in employment decisions, emphasizing the importance of fair and unbiased Al.

#### Transparency and Explainability

Al systems often make decisions that impact individuals and society at large, but often exist in a black box that makes it difficult to understand the inner workings of the system. The need for transparency in and explainability (i.e., the ability to describe the machine learning process in a communicable way) of Al algorithms is gaining prominence. Some regulations, such as the GDPR and CCPA, provide individuals with the right to receive explanations about the logic behind certain Al-driven decisions that affect them.

#### Liability and Accountability

Issues relating to liability and accountability for AI solutions are evolving. This creates uncertainty, which increases risks associated with acquiring companies with heavy use of AI technology. Several legal frameworks are exploring the concept of algorithmic

accountability and holding AI developers, owners, and operators accountable for the outcomes of their systems.

#### Ethical Considerations

Many organizations and research institutions are developing ethical guidelines for AI development and use. Initiatives like the Montreal Declaration for Responsible AI<sup>12</sup> and the Ethics Guidelines for Trustworthy AI by the European Commission<sup>13</sup> aim to promote responsible and ethical AI practices. These guidelines emphasize principles such as transparency, fairness, accountability, and human oversight.

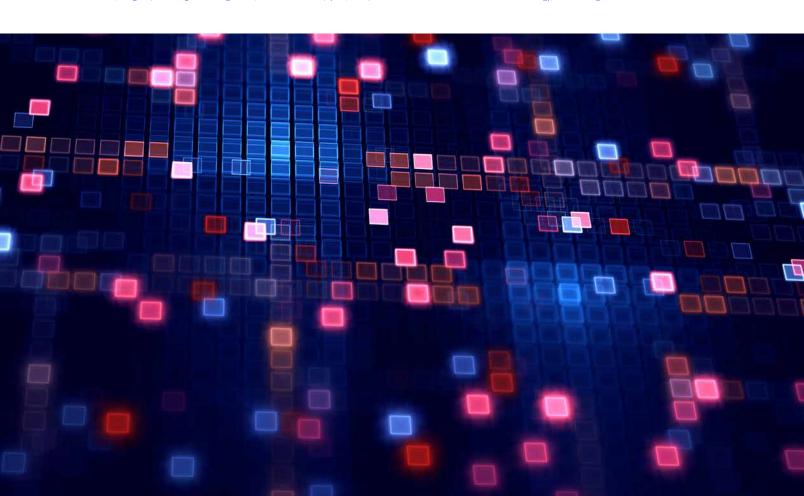
Guidance from Regulatory Agencies and Standards Organizations

Regulatory bodies around the world are also issuing guidelines and recommendations specific to AI. For example, the FTC has provided guidance on the use of AI in business operations, highlighting the importance of transparency and avoiding unfair or deceptive practices.<sup>14</sup> NIST has released a risk-management framework for AI, addressing technical standards for AI development and adoption.<sup>15</sup>

Assess Operational, Technological, Regulatory, and Market Risks

The key to a successful and effective due diligence exercise is the evaluation of the various operational, technological, regulatory, and market risks presented by the target.

11. NYC Admin. Code 20-871. 12. Université de Montréal, An initiative of the Université de Montréal. 13. High-Level Expert Group on Artificial Intelligence, Ethics Guidelines for Trustworthy Al (Apr. 8, 2019). 14. Andrew Smith, Using Artificial Intelligence and Algorithms, Fed. Trade Comm. (Apr. 8, 2020). 15. National Institute for Standards and Technology, Al Risk Management Framework.



POTENTIAL RISKS	MITIGATION OF RISKS
Market volatility and uncertainty	Diversification via spreading investments across multiple AI companies or diverse industries can help mitigate the risks associated with individual companies or sectors. Diversification can provide a cushion against the potential failure of specific AI investments and mitigate the impact of market volatility.
Technological obsolescence	Investing in AI companies carries the risk of technological obsolescence, where newer technologies or approaches may render existing AI solutions less competitive or obsolete. Staying informed about the latest technological advancements and assessing the company's ability to adapt and innovate is crucial in mitigating this risk.
IP ownership rights	Understanding the company's IP portfolio, conducting thorough IP due diligence, and ensuring that proper protections including licensing and assignment agreements are in place can help mitigate the risk of IP disputes or infringement.
Insurance coverage limitations	Traditional insurance policies may not adequately cover the unique risks associated with AI investments. The potential risks of AI, such as algorithmic errors, data breaches, or unintended consequences, may not be fully addressed by standard insurance coverage. Working closely with experienced insurance counsel and exploring specialized insurance products tailored to AI-related risks can help mitigate potential financial losses.
Regulatory compliance	Changes in privacy laws, data protection regulations, or sector-specific regulations can impact the operations and profitability of AI companies. Conducting comprehensive legal due diligence, monitoring regulatory developments, and ensuring compliance with applicable laws and standards are essential in mitigating regulatory risks.
Competition	Investing in AI companies may entail the risk of intense competition, which can impact market positioning and profitability. Assessing the company's competitive landscape, differentiation strategies, and barriers to entry can help evaluate the level of competition and potential risks.

There are also risks that are unique to Al companies, specifically surrounding data.

DATA-SPECIFIC RISK	POTENTIAL MITIGATION TECHNIQUES
Unauthorized use of customer data	<b>Data protection and privacy measures.</b> Implementing robust data protection and privacy measures, such as data anonymization, encryption, access controls, and regular security audits, helps safeguard customer data, and prevent unauthorized access.
	<b>Informed consent.</b> Obtaining informed consent from customers regarding the collection, storage, and use of their data is essential. Clear and transparent communication about data practices ensures that customers understand how their data will be utilized and allows them to make informed decisions about sharing their information.
	Compliance with data protection regulations. Adhering to relevant data protection regulations, such as the CCPA, GDRP, or other state and regional privacy laws is crucial. Compliance obligations generally include providing notice of data processing practices, obtaining proper consent where required, providing individuals with access to and control over their data, and ensuring data security and confidentiality.
	<b>Ethical data practices.</b> Employing ethical data practices, such as data minimization, purpose limitation, and data governance frameworks, helps prevent unsanctioned or illegal use of customer data. By only collecting and using data necessary for specific purposes and adhering to ethical guidelines, organizations can help ensure the responsible and ethical use of customer data.
Discrimination and bias in data used by Al	Data quality and diversity. Ensuring data quality and diversity is vital in minimizing biases. Bias (a preference, inclination, or predisposition for a particular trait or characteristic) can result in unlawful or undesired discrimination (making decisions that have a disparate and detrimental impact on a particular group or category of individuals). Data collection processes should aim to capture a diverse range of perspectives and demographics to avoid skewed representations and promote fairness in Al applications.
	Data preprocessing and cleaning. Rigorous data preprocessing and cleaning are necessary to identify and remove biases from training data. Techniques such as bias detection algorithms, data augmentation, and diverse data sampling can help mitigate biases in Al systems.
	<b>Ongoing monitoring and evaluation.</b> Continuously monitoring and evaluating AI systems for biases is crucial. Regular assessments and audits can identify biases that may emerge over time and allow for timely intervention and remediation.
	<b>Ethical guidelines and regulations.</b> Following ethical guidelines and complying with regulations that address biases in AI systems can help mitigate the impact of such biases. Ethical guidelines provide recommendations for fairness, transparency, and accountability in AI systems, and typically underpin regulatory requirements and prohibitions.
	<b>Bias mitigation techniques.</b> Employing bias mitigation techniques, such as algorithmic adjustments, counterfactual fairness, or bias-aware training, can help reduce biases in AI systems. These techniques aim to correct biases and ensure more equitable outcomes.

## Unique Characteristics of Al Companies in Terms of Assets and Value

Al companies possess unique characteristics in terms of their assets and value proposition. Moreover, Al companies often have intangible assets that drive their value. The due diligence team is integral in the investigation and evaluation of key unique characteristics:

- Intellectual property. Al companies' value is often derived from their IP portfolio, which includes the rights to proprietary training data, proprietary algorithms, patents, copyrights, trade secrets, and various exclusivity terms in commercial agreements with customers. Assessing the strength, uniqueness, and protectability of the company's IP is crucial in determining its value and market competitiveness.
- **Data assets.** Al companies heavily rely on data as a critical input for training and improving their algorithms. Evaluating the quality, diversity, and uniqueness of the company's data assets is essential in understanding the company's competitive advantage and potential for future innovation.
- AI models and algorithms. The value of an AI company lies in its AI models and algorithms. Evaluating the company's AI models, their performance, accuracy, scalability, and potential for further development is crucial in determining the company's value proposition and differentiation from competitors.
- **Team expertise.** The expertise and talent within the AI company's team are valuable assets. Assessing the team's technical capabilities, research background, industry experience, and ability to innovate is crucial in understanding the company's ability to drive future growth and sustain a competitive advantage.

## The Role of the Purchase Agreement in Mitigating Risks and Defining Acquisition Terms

The purchase agreement serves as the cornerstone of an acquisition (whether stock or assets), outlining the rights, responsibilities, and obligations of the buyer and seller. It plays a crucial role in mitigating risks, allocating those risks among the parties, and defining the terms of the transaction, including the purchase price, payment terms and structure, indemnification scheme, and post-acquisition arrangements.

■ Payment terms. A buyer may structure payments as (1) an up-front payment (payment of consideration in-full at closing), (2) an earn-out (i.e., post-acquisition payments determined by future performance of the business), or (3) a hybrid model, with partial payment at closing and the balance to be held in escrow depending on specific risks identified in due diligence. Given the highly fluid and risky nature of the AI field, earn-outs and hybrid model payment terms may be increasingly useful to buyers in this space.



- Representations and warranties. Representations and warranties provide assurances to the buyer about the accuracy, completeness, and validity of certain facts, such as the ownership of IP, absence of litigation, compliance with laws and regulations, and financial condition. These statements serve as the basis for a buyer's recovery via indemnification, should such statements prove inaccurate. In a nascent, dynamic field such as AI, crafting thoughtful, targeted representations and warranties serves as an ever-valuable means of protection to the buyer. Important findings or questions arising from the due diligence process frequently result in tailored representations to hold the issuer contractually responsible for such findings.
- Indemnification. The purchase agreement will include provisions for indemnification, which outline the parties' obligations to compensate each other for losses or damages incurred due to breaches of representations and warranties or other specified circumstances. Indemnification clauses allocate financial responsibility for identified risks and provide a mechanism for resolving disputes arising from the acquisition. The indemnification structure serves as a backstop against the representations, warranties, and agreements in the purchase documents and ensures the buyer may rely on them when completing the acquisition.
- Post-acquisition obligations. The purchase agreement may include post-acquisition obligations that govern the relationship between the buyer and seller after the transaction is completed. These covenants can cover areas such as transitional support, non-competition and non-solicitation agreements, employee retention, or technology integration. Clear post-acquisition arrangements help facilitate a smooth transition and help ensure the buyer's ability to realize the expected benefits of the acquisition. Particularly in AI transactions, in which the value of a target company may be significantly derived from its personnel, securing such post-acquisition obligations immeasurably protects the buyer's investment.

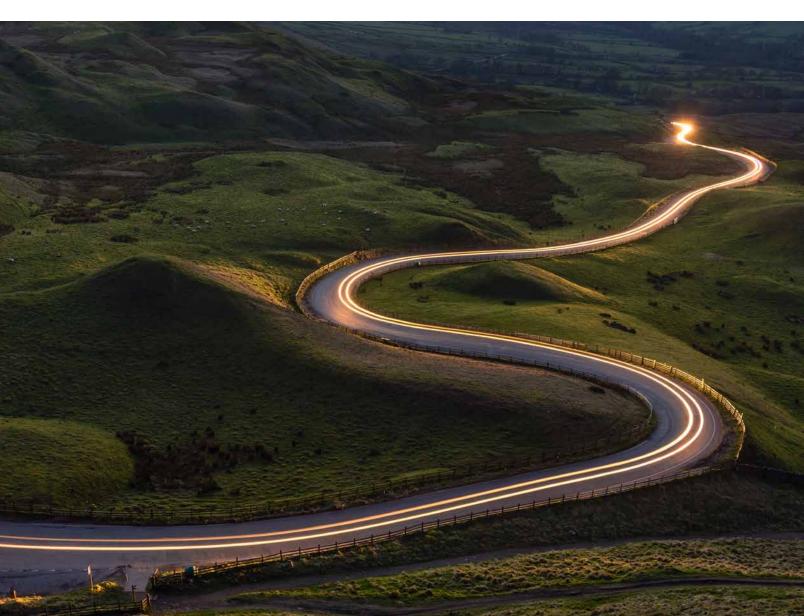
#### Addressing AI-Specific Risks in Representations and Warranties

Al-specific risks require careful consideration and mitigation in the representations and warranties section of the purchase agreement. Addressing these risks can help protect the buyer and ensure transparency and accountability. Some of the various risks and key considerations include:

- Algorithmic biases. Representations and warranties should address the existence of measures taken to identify and mitigate algorithmic biases. The seller should provide assurances that the AI system has undergone testing, validation, and ongoing monitoring to minimize biases and ensure fair and ethical outcomes and that they lack any knowledge of any biases exhibited by their AI systems.
- Data management, ownership, integrity, privacy, and security.

  The purchase agreement should include representations and warranties regarding the company's management and use of data, including information regarding the ownership rights of any data used or generated by the AI system. The purchase agreement

- should include representations and warranties regarding the company's compliance with data protection laws, data privacy policies, and data security measures. It should also address the seller's obligations to obtain necessary consents for data processing and provide assurances regarding the confidentiality and integrity of customer data.
- Regulatory compliance. Representations and warranties should cover compliance with applicable AI-specific regulations, such as those related to fairness, transparency, explainability, and accountability. The seller should assure the buyer that the AI system and the company's practices adhere to these regulations and any relevant industry standards.
- Al system performance and reliability. The purchase agreement should include representations and warranties regarding the Al system's performance, reliability, and functionality. The seller should provide assurances regarding the accuracy, availability, and suitability of the Al system for its intended purposes. In the case of Al systems used in critical applications, specific performance benchmarks and service level agreements may be necessary.





#### **Defining AI and Related Terms in the Purchase Agreement**

Defining AI and related terms in the purchase agreement is crucial to ensure clarity and avoid misinterpretation. The rapidly evolving nature of AI necessitates precise definitions to encompass the specific technologies, algorithms, and applications involved. Some key terms that may require definition include:

- AI. The purchase agreement should define AI in a manner that captures its general capabilities and technological aspects, such as the ability to emulate human thought, learn from data, and make decisions in real-world environments. This definition can serve as a basis for evaluating the AI company's technologies and IP assets.
- Machine learning. If the AI company's technologies rely on machine learning, it is important to define this term. Machine learning typically involves algorithms and techniques that enable systems to identify patterns, make decisions, and improve through experience and data. Defining machine learning clarifies the specific approach used by the AI company and helps evaluate the quality and potential of its models.
- Data training and testing. Clearly defining terms related to data training and testing helps establish expectations and responsibilities regarding the data used to train and validate the Al system. This includes defining terms such as training data, testing data, data ownership, data licensing, and data quality standards.
- Intellectual property. The purchase agreement should define key terms related to IP, such as patents, copyrights, trade secrets, and

proprietary algorithms. Clear definitions help identify the assets being acquired, establish ownership rights, and facilitate the protection and enforcement of IP post-acquisition. Buyers should not rely on an off-the-shelf definition of IP in Al acquisitions, as the unique nature of Al may render much of a target's technology outside the scope of a generic definition.

#### Accounting for the Evolving Nature of AI in Purchase Agreements

The ever-changing nature of AI necessitates the inclusion of provisions in the purchase agreement that account for future developments and advancements in the field. The agreement should acknowledge that AI technologies are subject to continuous evolution and that the acquired AI company may need to adapt to emerging technologies or market demands. Key considerations include:

- **Technology road map.** The purchase agreement may include provisions that outline the AI company's technology road map, future development plans, and the buyer's expectations regarding the integration of new technologies or updates. This helps align the parties' understanding of the company's future direction and potential changes in the AI landscape.
- IP ownership of future developments. The purchase agreement should specify the ownership rights and allocation of IP associated with future developments or enhancements to the Al system. This ensures clarity regarding ownership and potential commercialization of new technologies or features that may emerge after the acquisition.

#### **Related Content**

For an overview of the M&A due diligence process, as well as where to find practice notes, templates, and checklists relating to this topic in Practical Guidance, see



#### **DUE DILIGENCE RESOURCE KIT**

For an overview of current practical guidance on generative artificial intelligence (AI), ChatGPT, and similar tools, see



## GENERATIVE ARTIFICIAL INTELLIGENCE (AI) RESOURCE KIT

For a discussion of the primary and emerging legal issues relating to the acquisition, development, and exploitation of Al, see



#### **ARTIFICIAL INTELLIGENCE KEY LEGAL ISSUES**

For an analysis of the key issues to consider when companies transfer intellectual property assets in a strategic transaction such as a merger or acquisition, see



#### **IP ASSET ACQUISITIONS**

For practical guidance on the process of uncovering and understanding information about the status, value, and risks associated with the transfer of IP assets as part of a business deal, see



#### **IP DUE DILIGENCE**

For a template that may be used when reviewing a target company's material IP license agreements as part of a due diligence investigation conducted in the course of a merger or acquisition, see



## DUE DILIGENCE SUMMARY TEMPLATE (IP LICENSE AGREEMENTS)

For charts to be used by legal counsel to track and document IP assets during due diligence review, see



#### **IP DUE DILIGENCE REVIEW CHARTS**

For a form request list to be used in an IP due diligence investigation during an acquisition, see



#### **IP DUE DILIGENCE REQUEST LIST**

For a checklist that identifies key issues for performing a software and IT due diligence investigation of a seller, including a review of cloud computing and open source software considerations, see



SOFTWARE AND INFORMATION
TECHNOLOGY DUE DILIGENCE CHECKLIST

#### **Practical Implications**

Once the purchase agreement has been drafted, there are several practical implications to consider to ensure its effectiveness in mitigating risks and defining the terms of the AI investment. This section will explore the practical implications of the agreement, including the use of disclosure schedules to maintain the strength of AI-specific representations, the involvement of AI-knowledgeable specialists throughout the deal, the structure of indemnification and specific indemnities for AI risks, and the consideration of representations and warranties insurance (RWI).

#### Disclosure Schedules and Maintaining the Strength of Al-Specific Representations

For the buyer, disclosure schedules play a crucial role in maintaining the strength and validity of the representations and warranties made by the seller in the purchase agreement. These schedules provide the opportunity for the seller to disclose any exceptions, limitations, or potential risks related to the representations and warranties. They also typically contain a detailed listing of the underlying IP relevant for the AI solution. When it comes to AI investments, it is important to pay special attention to maintaining the strength of AI-specific representations and the completeness of the related AI disclosures.

Al-specific representations may include statements about the accuracy of training data, the absence of algorithmic biases, compliance with AI regulations, or the ownership of IP rights. By disclosing these matters, the seller can mitigate the risk of misrepresentation claims by the buyer and ensure transparency in the deal; however, it is essential to strike a balance when using disclosure schedules. While the seller wants to provide accurate and complete information, excessive disclosures and caveats can weaken the representations and warranties, potentially creating uncertainty for the buyer. It is crucial to carefully review and negotiate the disclosure schedules to maintain the overall strength and validity of the AI-specific representations. Typical AI-related items requiring disclosure may address identification of AI solutions and related technology used by the target, identification of proprietary or homegrown AI technology and third-party technology, known or potential IP infringement claims, use of open-source large language models and software, recent data privacy or security breaches, and recent major IT system disruptions relating to or impacting AI products and solutions. Overbroad or inapplicable disclosures pertaining to such items may serve to significantly weaken the representations and warranties and render the buyer without recourse should they prove inaccurate.

## Involvement of AI-Knowledgeable Specialists throughout the Deal

The involvement of Al-knowledgeable specialists is essential throughout the deal to ensure a thorough assessment of the Al investment. These specialists possess the technical expertise

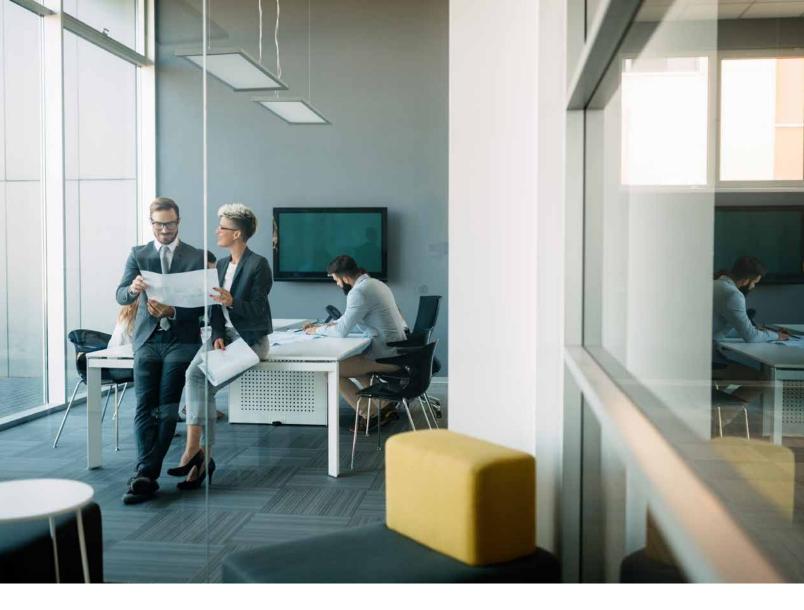


and understanding of AI technologies necessary to evaluate the target company's AI capabilities, algorithms, data quality, and potential risks.

During the due diligence process, Al-knowledgeable specialists can provide insights into the technical aspects of the Al system, assess its performance, and identify any potential issues related to algorithmic biases, data privacy, or regulatory compliance. Their expertise can help uncover hidden risks or opportunities that may not be apparent to nonspecialists.

In the negotiation and drafting of the purchase agreement, Alknowledgeable specialists play a critical role in reviewing and evaluating the Al-specific provisions, representations, and warranties—as well as negotiating such provisions from a place of expertise and providing sound rationale for the buyer's positions on those provisions. Their input can help ensure the accuracy and completeness of the representations, address any technical nuances or complexities, and enhance the overall effectiveness of the agreement in protecting the buyer's interests.

By involving Al-knowledgeable specialists throughout the deal, investors can make more informed decisions, better assess the value and risks of the Al investment, and negotiate from a position of greater strength—all working to increase the likelihood of a successful acquisition.



The indemnification structure in the purchase agreement is a key element in allocating risks between the buyer and seller. The buyer must be able to rely on the representations and warranties (as may be qualified by the disclosure schedules), and a thoughtful, protective indemnification structure enables the buyer to seek recourse in the event of breaches by the seller of its representations and warranties and other agreements in the purchase documents. The field of Al—where the technology itself, its inputs, its uses, and the regulation thereof, is ever-changing—features complications and risks which present unprecedented challenges to buyers. Negotiating comprehensive representations and warranties, and the strongest possible indemnity structure, functions to help buyers sleep at night knowing they have recourse against the sellers (or insurers as discussed below) in the event of certain unforeseen liabilities.

In the context of AI investments, it is important to consider specific indemnities for AI-related risks. Specific indemnities provide the buyer with protection for certain identified risks materializing post-acquisition. In the context of AI transactions, specific indemnities can cover areas such as the accuracy of training data,

the performance of the AI system, compliance with AI regulations, or the absence of IP infringement. Specific indemnities often come with heightened or special recourse for buyers separate from the conventional indemnity structure (such as a higher indemnity coverage amount or longer indemnification period), thus providing added protections for such specifically identified risks—potentially a crucial tool for buyers in the AI space.

Further, the indemnification structure should clearly outline the procedure for making indemnity claims, the limitations on indemnification, and the time frame for asserting such claims. These provisions ensure that the buyer has the necessary means to seek compensation for any losses incurred due to AI-related risks.

#### **RWI Considerations**

RWI can be a valuable tool in mitigating risks and providing additional financial protection in AI investments. RWI policies are designed to cover losses arising from breaches of representations and warranties made in the purchase agreement. RWI provides an additional level of comfort and financial security, particularly when dealing with complex AI technologies and their associated risks.

The AI industry has experienced rapid growth and is poised for further expansion. However, the fast-paced nature of this growth can present challenges to the longterm health and stability of AI companies.

RWI can provide a separate layer of protection by shifting the risks of undisclosed liabilities, inaccuracies in representations, or other breaches—all of which are heightened when dealing with a target in the AI field—to an insurance provider. RWI policies are typically tailored to the specific transaction and can cover a range of Alrelated risks, such as IP infringement, regulatory noncompliance, or the presence of algorithmic biases.

However, it is important to note that RWI policies have their own terms, conditions, and exclusions, and are not a panacea for the risks inherent in AI transactions. Known breaches of a representation, warranty, or covenant and matters disclosed by sellers (e.g., in disclosure schedules) are nearly always excluded from coverage under RWI. Careful consideration and negotiation of the policy terms are necessary to ensure that the coverage aligns with the specific risks associated with the AI investment.

#### **Additional Considerations**

There are several other important considerations to keep in mind when navigating the AI investment landscape, including the impact of rapid growth on the long-term health and stability of Al companies, the role of talent acquisition and associated risks in Al M&A, legal and ethical considerations in Al acquisitions, and future trends and predictions in the field of Al investments, which buyers must contemplate prior to any acquisition in the Al field.

#### Impact of Rapid Growth on the Long-Term Health and Stability of AI Companies

The AI industry has experienced rapid growth and is poised for further expansion. However, the fast-paced nature of this growth can present challenges to the long-term health and stability of AI companies. Some key considerations include:

- Scalability. As AI companies grow, they must ensure that their technologies, infrastructure, and operations can scale effectively to meet increasing demand. Scalability is essential for maintaining performance, reliability, and customer satisfaction. Investors should assess a company's scalability plans and capabilities during due diligence to evaluate its potential for sustained growth.
- Talent retention. The demand for AI talent is high, and competition for skilled professionals in the field is intense.

Al companies must have effective strategies for attracting and retaining top talent to drive innovation and maintain a competitive edge. Investors should consider the talent acquisition and retention practices of the target company, as talent retention directly impacts the company's ability to sustain growth and deliver on its promises.

■ Technology evolution. The AI landscape is constantly evolving, with new technologies, algorithms, and methodologies emerging rapidly. Al companies must stay at the forefront of these advancements to remain competitive. Investors should assess the target company's ability to adapt to technological changes, invest in research and development, and leverage emerging technologies to maintain a competitive advantage.

#### Role of Talent Acquisition and Associated Risks in Al M&A

Talent acquisition plays a critical role in AI M&A. The success of an Al investment often relies on the skills, expertise, and knowledge of the team behind the technology. However, talent acquisition can also present certain risks and challenges. Key considerations include:

- **Key personnel retention.** The departure of key personnel, such as AI researchers, data scientists, or technology leaders, can significantly impact the value and potential of an AI company. Investors should evaluate the strategies in place to retain key personnel and ensure that the departure of key individuals would not have a detrimental effect on the company's operations or future prospects.
- Non-compete agreements. Non-compete agreements are commonly used in AI acquisitions to restrict key employees from joining direct competitors or starting their own competing ventures. Investors should carefully review the enforceability and scope of non-compete agreements to protect the acquired company's IP and prevent talent drain.
- **Cultural fit and integration.** The cultural fit between the acquiring company and the target AI company's team is crucial for successful integration. Investors should assess the compatibility of organizational cultures, management styles, and working practices to ensure a smooth transition and effective collaboration post-acquisition.

#### **Sell-Side Considerations**

Al companies seeking investment and/or exit opportunities (and their advisors) would do well to consider the opportunities, risks, and prescribed actions detailed herein. By considering and anticipating how the purchaser intends to operate, an AI company can better position itself for post-closing processes and changes. The following questions can serve as a starting point for sellers in the AI industry to consider as an investor begins to conduct due diligence of their companies.

## **Sell-Side Sale Preparation Checklist**

1	What are the sources of the data that your AI system is using?	
2	Can you confirm that the data used by the AI system has been collected lawfully?	
3	What steps have been taken to ensure the data collection process eliminates biases and complies with equality legislation?	
4	Is the data your AI system uses up to date and accurate? Can you elaborate on the steps taken to ensure this?	
5	Can you explain how and where the data used by the AI system is stored?	
6	Do you have any arrangements in place to handle cross-border transfers of data?  If so, could you detail these arrangements?	
7	Can you identify and review the sources of your company's training data?	
8	How does your company secure data usage rights for all data used for development purposes?	
9	Can you provide details on your company's data management and compliance procedures?	
10	How does your company ensure compliance with all applicable data processing regulations?	
11	Can you provide an overview of the underlying data sets used by your AI, their sourcing, quality, and relevance?	
12	How vulnerable are your company's systems to cyberattacks? Could you elaborate on the procedures in place to protect data from these threats?	



#### **Future Trends and Predictions in AI Acquisitions**

The field of AI investments is continuously evolving, and staying abreast of future trends and predictions is crucial for successful navigation of the AI investment landscape. Some key future trends and predictions in AI acquisitions include:

- Vertical-specific Al solutions. As Al technologies mature, there may be a shift toward vertical-specific Al solutions tailored to meet the unique needs of specific industries or sectors. Investors should assess the target company's alignment with industry-specific requirements and evaluate its potential to capture market share in targeted verticals.
- Increased cross-industry collaborations. Al technologies have the potential to disrupt multiple industries. In the future, we can expect increased cross-industry collaborations, where Al companies and traditional industry players form strategic partnerships or engage in acquisitions to leverage Al capabilities. Investors should monitor these collaborations and evaluate their potential for creating synergies and unlocking new market opportunities.
- Regulatory and policy developments. The regulatory and policy landscape surrounding AI technologies will continue to evolve. Investors should closely follow regulatory developments, anticipate potential regulatory changes, and assess the target company's ability to adapt to evolving legal and compliance requirements. Compliance with regulations and industry standards will be crucial for long-term success in the AI investment space.

Further considerations in the AI investment landscape include the impact of rapid growth on the long-term health and stability of AI companies, the role of talent acquisition and associated risks in AI M&A, legal and ethical considerations, and future trends and predictions. By taking these considerations into account, investors can navigate the evolving AI investment landscape more effectively and make informed decisions that maximize the potential of their AI investments.

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RESEARCH PATH: Corporate and M&A > Specialty Issues in Mergers & Acquisitions > Practice Notes

Practice Trends | Data Security & Pr D. Reed Freeman Jr. ARENTFOX SCHIFF LLP **Generative Artificial** Intelligence, Data Minimization, and Today's Gold Rush www.lexisnexis.com/PracticalGuidance-Product

This article discusses the principle of data minimization in the context of commercial applications of generative artificial intelligence (GenAI) technology and tools.

#### IN THE UNITED STATES, THE PRINCIPLE OF DATA

minimization is embedded firmly within the Federal Trade Commission (FTC) Act, through FTC enforcement activities, and in the host of state-level privacy laws and rules that have proliferated in recent years.

The explosive emergence in recent months of commercial applications of GenAl technology and tools, their requirements to train on very large data sets, and the need to continue to develop user-generated data supplied in GenAl prompts (prompt data) present challenges in applying this principle.

Now is the time to take stock of your data-minimization strategies to ensure that your technology and tools based on GenAl are resilient, can withstand regulatory scrutiny, and can position your organization to compete effectively in a market estimated to experience a compound annual growth rate of over 35% through 2030—more than 10 times higher than the rate of the U.S. economy.

#### **Data Minimization Laws**

In general, the data-minimization principle holds that controllers should only collect and process the personal information they need to accomplish a disclosed purpose or a contextually compatible purpose, should only transfer such data consistent with those purposes, and should only maintain personal information as long as is necessary for those purposes.

The FTC's enforcement posture has changed dramatically over the past 11 years. As far back as 2012, the FTC advocated reasonable collection limitation.<sup>2</sup> Now, according to the FTC, using an interface to steer consumers to an option to provide more information than the context makes necessary may be considered a dark pattern, in violation of Section 5.<sup>3</sup>

Focusing more narrowly on AI and machine learning in a recent case, all three sitting commissioners stated that "machine learning is no excuse to break the law. Claims from businesses that data must be indefinitely retained to improve algorithms do not override legal bans on indefinite retention of data. The data you use to improve your algorithms must be lawfully collected and lawfully retained." In

a clear warning shot far beyond the contours of the case at hand, the FTC continued, "companies would do well to heed this lesson."

The FTC's Commercial Surveillance Advanced Notice of Proposed Rulemaking makes clear that the FTC is considering codifying data minimization into federal law.<sup>5</sup> In the meantime, the FTC has already brought a number of enforcement actions focused on data minimization. These cases allege that companies violated laws enforced by the FTC when they:

- Collected more personal information than they disclose or need for the purposes for which it was collected<sup>6</sup>
- Used<sup>7</sup> or shared<sup>8</sup> personal information for incompatible purposes
- Retained the information in violation of their own representations, or beyond the period for which the data is required for the purposes for which it was collected<sup>9</sup>

#### U.S. Laws

The California Privacy Protection Act, as amended by the California Privacy Rights Act, was the first comprehensive privacy law in the United States to reduce the data-minimization principle to codified law. Collection of personal information must be proportionate to the purpose for which it was collected or reasonably necessary for another purpose, provided that purpose is compatible with the context of collection. New laws taking effect this year in Colorado, Connecticut, Virginia, and laws passed this legislative cycle that take effect in 2024 and beyond in Indiana, lowa, Fennessee, Montana, and Texas all share common principles. In short, it is now black-letter law in the United States that personal information can only be collected for disclosed and contextually relevant purposes.

#### Contracts

One risk associated with licensing GenAl technology is that it may have been trained on data sets including personal information or sensitive personal information—or both. Companies can limit their risk in this regard by focusing their attention on the representations, warranties, limitations of liability, and indemnity provisions. In the GenAl context, these terms are not yet standard. The market is still

<sup>1.</sup> Compare Grand View Research, Generative AI Market Size To Reach \$109.37 Billion By 2030 (Sept. 2023) with Congressional Budget Office, The Economic Outlook for 2023 to 2033 in 16 Charts (Feb. 21, 2023). 2. See Fed. Trade Comm., Protecting Consumer Privacy in an Era of Rapid Change (March 2012). 3. Fed. Trade Comm., Bringing Dark Patterns to Light (Sept. 2022). 4. Statement of Commissioner Alvaro M. Bedoya Joined by Chair Lina M. Khan and Commissioner Rebecca Kelly Slaughter in United States v. Amazon.com, Inc. (May 31, 2023). 5. Fed. Reg. 51,273 (Aug. 22, 2022). 6. United States v. Edmodo, LLC, 3:23cv2495 (ND Cal. May 22, 2023). 7. In the Matter of Support King, LLC, c-4756 (Fed. Trade Comm. Dec 20, 2021). 8. In the Matter of Goldenshores Technologies, LLC, and Erik M. Geidl, 132 3087, Fed. Trade Comm. (April 9, 2014). See also United States v. Easy Healthcare Corp., 1:23-cv-3107 (ND III May 17, 2023), In the Matter of Flo Health, Inc., C-474 (Fed. Trade Comm. June 17, 2021). 9. In the Matter of Everalbum, Inc., 192 3172, Fed Trade Comm. (May 5, 2022). 10. Cal. Civ. Code § 1798.100(c). ("A business' collection, use, retention, and sharing of a consumer's personal information shall be reasonably necessary and proportionate to achieve the purposes for which the personal information was collected or processed, or for another disclosed purpose that is compatible with the context in which the personal information was collected, and not further processed in a manner that is incompatible with those purposes.") 11. Colo. Rev. Statutes § 6-1-1304(4)(a)-(b). 12. Connecticut Act Concerning Personal Data Privacy and Online Monitoring § 10(f), 2022 Ct. SB 6. 13. Virginia Code Ann. §59.1-578. 14. Indiana Consumer Data Protection Act, Ch. 4, § 1; Ind. Code Ann. § 24-15-4-1 (Effective Jan. 1, 2025). 15. Tenn. Code Ann. § 47-18-3304 (Effective July 1, 2025). 17. Montana Consumer Data Privacy Act, § 7, 2023 Bill Text MT S.B. 384. 18. Tiles. San Aprof. Code 11-541-101 (Effective July 1, 2024).



developing. But savvy organizations are familiar with risk shifting. Do not let the rush-to-market period we're in now expose your organization to undue risk. Regulators have shown a willingness to seek algorithmic disgorgement—the death penalty that could cripple your GenAl rollout—for algorithms based on data improperly collected.<sup>19</sup> Do your best to make sure that you are building your tool on a solid foundation and that you are protected against downside risk.

What about prompt data? Consider whether this data will go to the GenAl technology developer itself, and for what purposes. Will it be used to continue the development of the tool just for your organization, or for others as well? If the toolmaker will use the data just for you, can the toolmaker be your service provider or processor just for this purpose? Appropriate data-processor or service-provider agreements under the new state laws may get your organization some control over the further use and disclosure of user prompt data, and such agreements may limit your risk to that extent. Your processor/service agreement should define the uses to which the GenAl technology developer will make of prompt data and should be parallel with the purposes you disclose at the point of collection and

in your privacy policy. You should also make sure that the toolmaker is equipped to assist you in responding to consumer rights requests.

## Your Disclosures: Proximate to the Prompt and Privacy Policy

Because privacy laws place an emphasis on disclosed and contextually relevant purposes, it is critical to have clear and conspicuous disclosures proximate to the prompt field. These disclosures should make clear that data submitted as a GenAl prompt will be used by your organization and (if applicable) the Al technology developer to generate content and to train the tool (and, if applicable, the underlying GenAl technology) on an ongoing basis. The company's privacy policy should also contain the same disclosures.

These disclosures should also explain that the user may prevent this use by not entering any personal information into the prompt field. If possible, end users should have an opportunity to opt out of the processing of prompt data for further development of the GenAl tool and the underlying technology. But before you offer that, be sure you can honor it.

#### **De-identifying Prompt Data**

Because GenAl's fuel is data, and because of the expansive definitions of personal information and personal data in the state privacy laws, it may not be feasible over time to sort through all of your organization's prompt data to delete all personal information before the data is used for GenAl product development. But what about de-identification? California's Consumer Privacy Act (CCPA) excludes de-identified data,<sup>20</sup> it and contains a typical standard that organizations must meet to enjoy this protection, borrowed from FTC enforcement and policy work.

#### Section 1798.140(m) of the CCPA states:

"Deidentified" means information that cannot reasonably be used to infer information about, or otherwise be linked to, a particular consumer provided that the business that possesses the information:

- **1.** Takes reasonable measures to ensure that the information cannot be associated with a consumer or household.
- 2. Publicly commits to maintain and use the information in deidentified form and not to attempt to reidentify the information, except that the business may attempt to reidentify the information solely for the purpose of determining whether its deidentification processes satisfy the requirements of this subdivision.
- **3.** Contractually obligates any recipients of the information to comply with all provisions of this subdivision.<sup>21</sup>

Well-known work by the National Institute of Standards and Technology<sup>22</sup> and the U.S. Dept. of Health & Human Services<sup>23</sup> serve as tactical guideposts. The point is to do what you can to maintain the volume of data needed to develop GenAl tools while avoiding data minimization risks associated with prompt data.

#### Conclusion

Privacy law has long wrestled with the urge to collect and keep data for future use. What's new is that with GenAl, what was once a question of "I may want to use the data in the future" has now become "I will need to use the data in the future." Data-minimization standards do not act as a ban on the use of training data and prompt data for the development of commercial GenAl technology and tools.

In fact, done with care, you can use data-minimization standards as both a shield to avoid regulatory scrutiny and as a sword to distinguish your GenAl tools from others in an almost limitless market.

#### **Related Content**

For an overview of the legal issues related to the acquisition, development, and exploitation of artificial intelligence (AI), see



ARTIFICIAL INTELLIGENCE KEY LEGAL ISSUES

For insight into a judge's view of the use of generative Al (GenAl), see



ARTIFICIAL INTELLIGENCE: A JUDGE'S VIEW OF GENERATIVE AI

For a sample certificate regarding the use of GenAI in federal court. see

GENERATIVE ARTIFICIAL INTELLIGENCE (AI)
USE AND COMPLIANCE CERTIFICATION
(FEDERAL)

For a comprehensive guide to current practical guidance on GenAl, ChatGPT, and similar tools, see



GENERATIVE ARTIFICIAL INTELLIGENCE (AI)
RESOURCE KIT

For a list of key issues for performing a software and IT due diligence investigation of a seller, see

AI AND LEGAL ETHICS: WHAT LAWYERS NEED TO KNOW SOFTWARE AND INFORMATION TECHNOLOGY DUE DILIGENCE CHECKLIST

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This article was first published in Pratt's Privacy & Cybersecurity Law Report.



RESEARCH PATH: Data Security & Privacy > Industry
Compliance > Articles

Practical Guidance Real Estate, Construction, and Finance Attorney Teams

# Market Intelligence: Real Estate Insights

# Revealed in the Practical Guidance Private Market Data Survey

Practical Guidance recently completed its annual Private Market Data Real Estate Survey. This survey, which ran from August 25 through September 30, 2023, asked nearly 80 real estate attorneys from across the country to identify trends in the real estate and construction markets based on their practice.



#### ANALYSIS OF THE SURVEY RESULTS BY THE PRACTICAL

Guidance Real Estate, Construction, and Finance attorney teams uncovered a number of notable insights discussed below that practitioners should be aware of.

**Labor Shortages and Supply Chain Disruptions** Continue to Impact Construction in 2023 but Many **Practitioners Expect Improvement in 2024** 

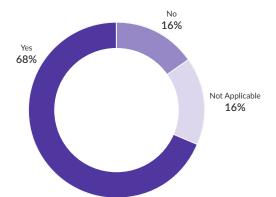
#### **Labor Shortages**

Even as demand for labor is falling across all US industries, the demand for construction labor remains higher than supply. (See Construction doubles number of new jobs in October

compared with September.) Multiple factors are driving this shortage of workers. These include lingering fallout from COVID-19 disruptions, changes in the labor market and worker expectations, and an aging labor force. At the same time that workers are shying away from construction jobs, a rapid increase in construction following passage of the \$1 trillion Infrastructure Investment and Jobs Act in 2021 has exacerbated the gulf between supply and demand.

Practical Guidance recently asked attorneys if labor shortages affected their construction clients in 2023 and a resounding 68% answered yes.

HAVE LABOR SHORTAGES SIGNIFICANTLY IMPACTED YOUR CONSTRUCTION CLIENTS IN 2023?

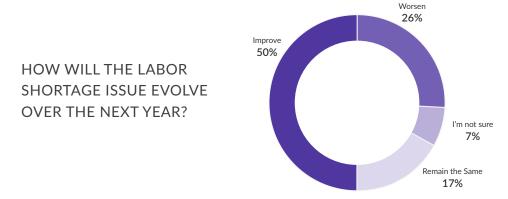


(All respondents)

Moreover, when the 15% who reported that the question was not relevant to their practice are removed from the survey results, 81% of respondents reported that their clients have been affected by labor shortages.



Yet, many respondents see a light at the end of the tunnel. When asked about the outlook for 2024, a full 50% of those surveyed predicted that construction labor market conditions will improve and only 26% predicted that conditions will worsen, with 17% believing conditions will stay the same.



Labor shortages can cause significant delays in construction projects, triggering changes in work, claims, and even contract termination. For guidance on these issues, see Changes in Work and Claims Provisions in Construction Contracts and Termination and Suspension Clauses in Construction Contracts.

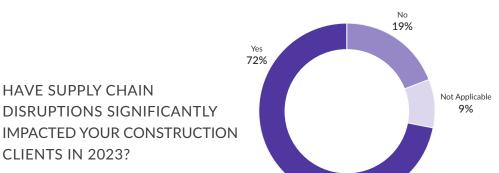
Project delays can also spur owners to seek liquidated damages from contractors. For guidance on liquidated damages, see Liquidated Damages Clauses in Construction Contracts.

For a full set of Practical Guidance construction resources, see Construction Resource Kit. For dispute resolution resources, see Construction Dispute Resolution Resource Kit.

#### **Supply Chain Disruptions**

In addition to labor shortages, the COVID-19 pandemic also spurred serious disruptions in the construction supply chain. In turn, these disruptions escalated costs and slowed project turnaround. To better understand whether these supply chain disruptions remain a factor for construction in the post-COVID world, Practical Guidance asked attorneys whether supply chain issues impacted their construction clients in 2023. A full 72% responded yes.

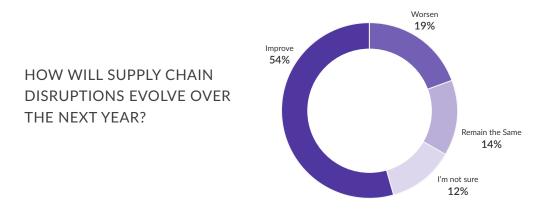




When the 9% of respondents who indicated the question was not applicable to their practice are removed from the survey results, 79% answered in the affirmative.



But, when asked about the outlook for 2024, more than half of respondents, 54%, predicted that things will improve, with 19% predicting they will worsen and 14% believing they will stay the same.



The COVID-19 pandemic and resulting supply chain disruptions have prompted construction attorneys to revisit and revamp their force majeure clauses. For guidance on drafting these clauses, see Force Majeure Clauses in Construction Contracts. For sample force majeure clauses, see Force Majeure Clause (Construction Contract).

Supply chain disruptions often drive up the costs of construction materials. To deal with these cost escalations, attorneys often include cost escalation clauses in their construction contracts. For a cost escalation clause that can be included in a fixed-price construction contract, see Cost Escalation Following Force Majeure Event Clause (Fixed-Price Construction Contract). For a guaranteed maximum price clause, see Guaranteed Maximum Price Clause. For a discussion of cost escalation clauses in fixed-price and guaranteed maximum price contracts, see Negotiating Material Escalation In Construction Contracts.

For information on payment and pricing methods in construction, see Construction Contract Methods of

ARE LANDLORDS GIVING PROSPECTIVE COMMERCIAL TENANTS INCENTIVES TO SIGN COMMERCIAL LEASES AS POST-COVID WORK-FROM-HOME TREND CONTINUES?

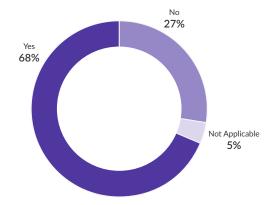
Compensation and Payment and Construction Pricing Models: Choosing an Appropriate Pricing Arrangement.

For a complete set of Practical Guidance resources addressing the drafting and negotiation of construction contracts, see Owner and Contractor Agreement Resource Kit.

## Many Commercial Landlords are Still Relying on Lease Incentives to Fill Space

As employers transitioned to remote work during the pandemic, commercial landlords were left with record-high vacancy rates. Landlords in many markets across the country are continuing to feel the impact of the changing workplace. While more employers are now starting to require some degree of in-office or hybrid attendance, commercial vacancy rates remain high as tenants adjust their leases to meet their current space needs.

Practical Guidance asked attorneys if landlords are giving prospective commercial tenants incentives to sign commercial leases as the work-from-home trend continues. Sixty-eight percent of survey respondents said yes.





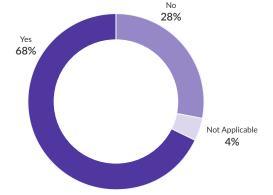


Incentives such as free rent and buildout allowances can help commercial landlords attract and retain tenants in this challenging market. With the leasing industry in flux, commercial landlords and their attorneys must keep an eye on the market and leverage the tools and their disposal to fill space. For further insight into COVID-19's impact on commercial leasing, see Impact of the Pandemic on Commercial Property Occupancy and Valuation: Practical Strategies for Lawyers and Advisors. For a full listing of commercial leasing resources in Practical Guidance, see Office Leasing Resource Kit, Industrial leasing Resource Kit, Retail Leasing Resource Kit, and Subleasing Resource Kit.

## Bank Collapses Continue to Reverberate Across the Real Estate Market

In early 2023, a series of regional bank failures, including Silicon Valley Bank and Signature Bank, caused volatility throughout many sectors of the market and created concerns over further economic impact. Regional banks' portfolios are composed of a significant portion of commercial real estatebacked loans. The collapse of some notable regional banks coupled with the continuing post-pandemic stressors on the valuation of commercial real estate has continued to negatively impact many aspects of the commercial real estate market. According to 68% of the survey respondents, the recent bank collapses have impacted the real estate industry.

HAVE RECENT BANK
COLLAPSES IMPACTED
THE REAL ESTATE INDUSTRY?



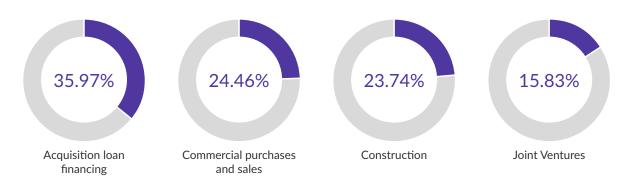
The bank failures triggered fears of broader economic decline leading to less credit availability for the commercial real estate market and resulting in less investment and construction.

The survey asked respondents to indicate the areas of the real estate industry that have been impacted by the bank collapses and to select all that applied among construction, acquisition loan financing, commercial purchases and sales, and joint ventures. Survey respondents indicated that acquisition loan financing has been impacted the most by the bank collapses, followed by commercial purchases and sales, and construction, along with some impact to joint ventures.





#### WHICH AREAS OF THE REAL ESTATE INDUSTRY HAVE BEEN IMPACTED BY BANK COLLAPSES?



For additional information on bank failures and the commercial real estate market, see Bank Failure Resource Kit, 3 Ways SVB, Signature Failures Will Rattle Real Estate, and Troubled Hotel Properties On Shaky Ground As Debt Matures.

#### Non-Bank Lenders Are Playing an Increasingly Important Role in Commercial Real Estate Financing

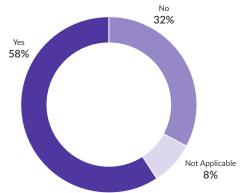
The increased regulations and capital requirements imposed on banks by Dodd-Frank and Basel III have resulted in less availability of commercial real estate financing by traditional bank lenders. Consequently, over time, non-bank lenders have become a significant source of commercial real estate loans. In addition to bank regulation, recent regional bank failures

and rising interest rates have contributed to a marked increase in non-bank lending to the commercial real estate market. Since non-bank lenders are not subject to the same level of regulation as traditional bank lenders, non-bank lenders may offer more flexibility in loan terms, including advance rates, negative covenants, and interest rates.

The survey asked respondents approximately what percentage of commercial real estate financing they have seen coming from non-bank lenders in 2023. More than half of the survey respondents (60.75%) estimated that between 26% and 75% of commercial real estate financing in 2023 was provided by nonbank lenders.

Further, the survey asked whether the percentage of non-bank lender financing in 2023 seemed to represent an increase over 2022. A majority of the survey respondents (58%) indicated the amount of commercial real estate financing provided by non-banks in 2023 represented an increase over 2022.

INCREASE IN NON-BANK LENDER FINANCING OVER 2022?\*



Whether the increase in non-bank lenders providing commercial real estate financing will continue remains to be seen and depends on a number of factors that affect availability of commercial real estate financing and traditional bank lenders. Those in the real estate industry should continue to monitor banking regulations, regional bank stability, and interest rates, and consider commercial real estate loan default rates and property values, all of which will have influence on sources of commercial real estate financing.

For additional information on non-bank financing and commercial real estate financing generally, see Commercial Real Estate Acquisition Loan Resource Kit, Economic Growth, Regulatory Relief, and Consumer Protection Act: PART 1 – Impact on High Volatility Commercial Real Estate, Private Credit Loan Transactions, and Representing National Real Estate Lenders.

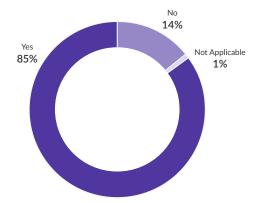
## Climate Change Is Top of Mind for a Growing Number of Real Estate Owners and Investors

#### **Building Efficiency and Decarbonization**

Property owners and investors are increasingly considering energy efficiency and carbon reduction issues when purchasing real property. Energy efficiency measures can help reduce operating costs by lowering electricity and fuel bills. They can also help landlords increase occupancy rates by attracting the growing number of climate-conscious tenants in their market. On top of this, building decarbonization is a key issue for property owners in states with laws capping building emissions and restricting fossil fuel use in buildings, like New York and California.

The survey revealed that 85% of respondents are seeing property owners and investors consider environmental and carbon reduction issues – such as energy use, energy efficiency options, solar technology, smart windows, natural lighting, and insulation – when purchasing real property.





ARE PROPERTY OWNERS/INVESTORS CONSIDERING ENVIRONMENTAL/ CARBON REDUCTION ISSUES WHEN PURCHASING REAL PROPERTY?

For guidance on decarbonization and other climate-related legislation in New York and California, see Climate Change Legislation Tracker (Real Estate) (NY) and Climate Change Legislation Tracker (Real Estate) (CA). For guidance on New York City's Local Law 97 from the lender's perspective, see Through the Green Looking-Glass: A Lender's Guide to New York City's Local Law 97.

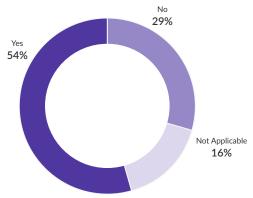
For guidance on incorporating efficiency and green leasing provisions in commercial leases, see Green Leasing and Green Lease Drafting Checklist.

#### **Flood Insurance**

The majority of survey respondents reported increased difficulty in obtaining flood insurance or significant increase in flood insurance premiums. The survey reveals that 54% of respondents have noticed this trend, while 29% have not observed difficulty obtaining flood insurance or significant premium increases (and 16% of the respondents indicated this issue was not applicable to their practice).

ARE PROPERTY OWNERS
EXPERIENCING DIFFICULTY
OBTAINING FLOOD INSURANCE
AND/OR FACING SIGNIFICANT
INCREASES IN PREMIUMS?

This data is not surprising with the increasing number of floods resulting in significant damage to buildings and property. As a result, fewer insurance carriers are providing flood insurance, and when such coverage is available, property owners are experiencing increases in premiums.



For further information on the increase of flood risks and flood insurance, see Climate Change as a Strategic and Compliance Issue Video, Sea Level Rise: A Guide for Public and Private Projects, Flood Insurance, and ISO's Flood Exclusion Amendments and Hurricane Ian Claims.



#### **Practical Guidance Labor & Employment Attorney Team**

# Market Intelligence: Labor & Employment Insights Revealed in the Practical Guidance Private Market Data Survey

Practical Guidance recently completed the annual Private Market Data Labor & Employment Survey, which ran from August 25 through September 30, 2023. This survey asked labor and employment attorneys from across the country to identify trends concerning settlements resolving employment discrimination, harassment, and retaliation claims in 2022 and 2023.



AFTER ANALYSIS OF THE SURVEY RESULTS BY OUR TEAM OF INTERNAL AUTHOR ATTORNEYS WITH EXPERIENCE NEGOTIATING employment discrimination settlement/separation agreements, a few notable insights emerge. The following analysis is based on that data.<sup>1</sup>

#### **Frequency Of Settlements**

According to the data received, 61.29% of the attorneys surveyed indicated that they noticed an increase in the percentage of employment discrimination/harassment/retaliation claims resulting in settlement compared to the prior year. By contrast, 29% of those surveyed indicated no change and 9.68% indicated a decrease in the percentage of claims resulting in settlement.

<sup>1.</sup> More than 30 Labor & Employment practitioners responded to the Practical Guidance Private Market Data Survey during August and September 2023.

#### CHANGES IN PERCENTAGE OF EMPLOYMENT DISCRIMINATION/HARASSMENT/RETALIATION CLAIMS RESULTING IN SETTLEMENT COMPARED TO PRIOR YEAR



#### **Reasons For Settlements**

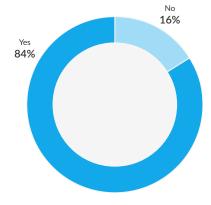
Respondents listed potential legal exposure in connection with the employee's allegation as the single most important specifically identified reason impacting the decision to enter into a discrimination/harassment/retaliation settlement agreement. The strength of the employee's case was the next highest specific reason cited.

#### Mediation

Mediation is a non-binding, informal, and confidential negotiation in which a neutral third party actively promotes a mutually acceptable settlement. Parties often attempt to resolve employment law disputes through mediation to reduce the uncertainty and expense inherent in litigation. The mediator facilitates negotiations between the two parties, while the parties retain complete control over the dispute and resolution. According to the data received, 83.87% of the attorneys surveyed indicated that mediation helped them resolve discrimination, harassment, and retaliation disputes, whereas only 16.13% indicated that mediation did not help the resolve such disputes.



SUCCESS OF USING MEDIATION TO RESOLVE DISCRIMINATION. HARASSMENT, AND RETALIATION **COMPLAINTS** 



These findings are consistent with our previous survey, which found that the parties in 36.5% of the matters that were part of the study participated in either court ordered or voluntary mediation and that the vast majority of those mediations (87.5%) resulted in settlement.

#### Non-Disparagement

With the intense emotions (on both sides) that often accompany allegations/claims of discrimination, harassment, and retaliation, parties are often concerned about the potential for reputational damage—notwithstanding the possible availability of defamation and tortious interference claims.

According to the data received, non-disparagement provisions were one of the most important provisions insisted on by employers that nevertheless encountered resistance from employees. This is consistent with our previous survey, which found that non-disparagement clauses were contained within 76% of the Agreements referenced in that study. Notably, in our current questionnaire results, 53% of the Agreements containing a non-disparagement clause contained a bilateral

non-disparagement clause, protecting both sides, while 47% contained a unilateral non-disparagement clause.

#### **Additional Trends**

The attorneys responding to our survey reported additional trends emerging over the past year regarding settlement/severance agreements resolving employment discrimination/harassment/retaliation claims, including:

- Increase in disability and failure to accommodate claims
- Increase in claims by employees that remain employed
- Increase in nonmonetary fixes at employer's place of business
- Increase in constructive termination claims ■





# Featured New Publications and Jury Instructions Added to Lexis+® and Lexis®

New secondary materials and jury instructions released between July through October 2023 are featured in this listing.

### **Top Selections**

## Data Privacy and Cybersecurity Compliance for Corporations and Their Counsel (Lexis+ / Lexis)

A unique, comprehensive compendium of both data privacy and cybersecurity law. It delivers detailed, practical compliance guidance for corporations and their lawyers, alike.

#### Family and Medical Leave Act (Lexis+ / Lexis) and in the LexisNexis Store

Provides comprehensive coverage of FMLA, which Congress created to balance the needs of workplace and family. This treatise explains the facets of FMLA in an easy-to-understand manner for those working with FMLA. Written by a practitioner with years of experience in the field, this publication includes discussion of eligibility, coverage and FMLA's interaction with other laws.



#### Mass Tort Litigation (Lexis+ / Lexis)

A collection of chapters addressing mass tort litigation and derived from Matthew Bender publications: A Guide to Toxic Torts; Aviation Accident Law; Drug Product Liability; Environmental Law Practice Guide; Moore's Federal Practice; New Appleman Law of Liability Insurance; New Appleman Insurance Law Practice Guide; Product Liability Practice Guide; Products Liability; and Personal Injury: Actions, Defenses, Damages.

#### New Jersey Cannabis Regulation (Lexis+ / Lexis) and in the LexisNexis Store

Use the authors' first-hand experience to learn about medical and recreational marijuana laws and regulations as it is interpreted in New Jersey courts. Addresses common issues and analyzes the principles and applications of cannabis regulations in New jersey, providing tools to ensure that no aspects of the law are overlooked.







# Perspectives on Predictive Coding and Other Advanced Search Methods for the Legal Practitioner (ABA) (Lexis+ / Lexis) and in the LexisNexis Store

Will appeal both to practitioners who are seeking basic knowledge of what predictive coding and other advanced search methods are all about, as well as to those members of the legal community who are "inside the bubble" of e-discovery already and wish to gain further insight into the latest thinking on advanced search techniques from leading lawyers, judges, and information scientists.



#### The Ethics of E-Discovery (ABA) (Lexis+ / Lexis)

Examines the ethical issues associated with e-discovery and provides guidance on how to deal with the new and challenging intersection of electronic discovery and ethics.

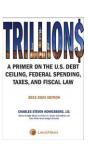
## The Online Courtroom: Leveraging Remote Technology in Litigation (ABA) (Lexis+ / Lexis) and in the LexisNexis Store

A practical and easy-to-use guide to this new law practice. The authors of the chapters range from practicing attorneys, law professors, retired judges, and legal consultants, each of whom recommends protocols for thriving in an online environment. The Appendix section provides helpful forms and other documents for use with online litigation, including a jury questionnaire and a template for a trial setting order.



## Trillions: A Primer on the Debt Ceiling, Federal Spending, Taxes, and Fiscal Law (Lexis+ / Lexis) and in the LexisNexis Store

A concise treatise explaining federal spending and taxes with easy-to-use explanations of the budget, authorization, appropriations, and tax processes. This book also includes to the point explanations of two timely issues with farreaching implications: recurrent fiscal crises over raising the debt limit and the recent legal challenge to the Consumer Financial Protection Bureau's (CFPB) funding mechanism. This book is relevant for Members of Congress and staff, federal agencies, attorneys, advocates, professors and students, the national news and business media, the business community and trade associations, nonprofits, and the curious public.



And More . . .



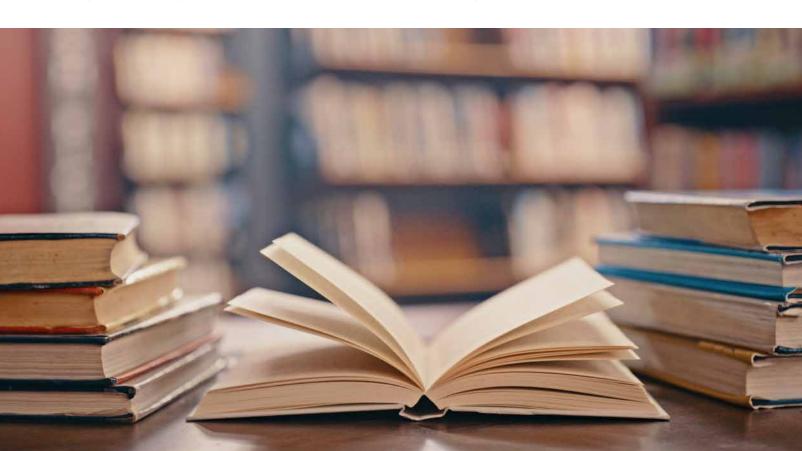
- ABA Model Jury Instructions: Securities Litigation (Lexis+ / Lexis)
- Alabama Employment Law (Lexis+ / Lexis) and in the LexisNexis Store
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- Oregon Estate Planning with Forms (Lexis+ / Lexis)

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- Public Company Mergers: Shareholder Litigation in Kansas (KBA) (Lexis+ / Lexis)
- Restatement of the Law, The U.S. Law of International Commercial and Investor-State Arbitration--Official Text (Lexis+ / Lexis)
- Restatement of the Law, Third, Torts: Medical Malpractice -Tentative Draft No. 1 (Lexis+ / Lexis)
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As wars and authoritarian movements threaten the rule of law across the globe, the existence of a robust press has become increasingly critical to the free flow of accurate information to the public.

#### RECENT SEIZURES AND DETENTION OF REPORTERS IN

Russia have heightened awareness of the need to safeguard a free press.

The LexisNexis Rule of Law Foundation has partnered with the Global Investigative Journalism Network to provide journalists across the world with tools to enhance their ability to expose conditions and events that can weaken the rule of law.

The GIJN, founded in 2003, is an international association of more than 240 nonprofit journalism organizations in 90 countries. With staff members in 24 countries, its mission is to support investigative journalism around the world "with special attention to those from repressive regimes and marginalized communities."

Among the activities sponsored by the GIJN are conferences and training, including the biannual Global Investigative Journalism

Conference, the world's largest international gathering of investigative reporters. The conference is held in a different city every two years; the most recent conference was in Gothenburg, Sweden, this past September. GIJN also co-hosts an Asian regional conference, Uncovering Asia, every two years. The conferences feature a fellowship program that has resulted in the training of more than a thousand journalists from developing countries.

"By focusing on skills and training, they have helped spread stateof-the-art investigative reporting, data journalism, and cross-border collaboration around the world," GIJN says of the conferences. "Attendees have returned home to run groundbreaking projects into corruption and abuse of power, launch investigative teams and nonprofit centers, and spread investigative reporting to where it is needed most." In addition, GJIN sponsors the following

- The GJIN Resource Center, an online source of tip sheets, videos, and reporting guides in 14 languages
- The GIJN Help Desk, providing access to hundreds of experts on investigative techniques, data journalism, nonprofits, funding, safety and security
- GIJN Advisory Services, a range of resources, training, and assessments, including evaluation of a news organization's editorial operations, business practices, fundraising, security, and legal exposure
- The Global Shining Light Awards, given every two years to journalists in developing or transitioning countries for outstanding investigative journalism under threat or duress

In support of the GIJN's activities, LexisNexis, through the Rule of Law Foundation, has given GJIN members exclusive low-cost access to its collection of news resources, including

- more than 26,000 licensed news sources from international, national, and regional newspapers, journals, newswires, and broadcast transcripts, including more than 40 years of archives
- 60,000 news and legal sources in more than 17 languages
- legal research in more than 40 practice areas
- a comprehensive collection of federal and state case law

"We are grateful to the Rule of Law Foundation for offering GIJN and its members this extraordinary opportunity," noted GIJN Executive Director David Kaplan. "By granting low-cost access to the vast holdings in LexisNexis, the Foundation is providing the world's most



enterprising journalists with unparalleled access to news and public records. This will strengthen watchdog reporting worldwide on corruption, lack of accountability and abuses of power."

Commenting on the collaboration, Ian McDougall, President of the LexisNexis Rule of Law Foundation, said: "Investigative journalists around the world help governments operate in fair and transparent ways; tackle corruption, poverty, and disease; and protect people from injustices. At the same time, they are also helping to increase awareness and understanding of the rule of law."

The LexisNexis Rule of Law Foundation was established by LexisNexis Legal and Professional to advance the rule of law around the world by helping leading entities from legal, judicial, academic, NGO and other sectors advance one or more of the four rule of law components: equal treatment under the law, transparency of law, access to legal remedy, and independent judiciaries.



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