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TRADE SECRET PROTECTION IN THE AGE OF LARGE LANGUAGE MODELS: RISKS, REASONABLE MEASURES, AND LEGAL REMEDIES

By James E. Malackowski and Robert McSorley

INTRODUCTION

Large Language Models (LLMs) are a type of Artificial Intelligence (AI) system that can process and generate human-like text based on the patterns and relationships learned from vast amounts of text data. LLMs use a machine learning technique called deep learning to process text data from books, articles, web pages and other sources. Context Windows are the space or memory available for users of LLMs to prompt a response. In addition to these data sources, LLMs may analyze and process the text users enter in context windows – which are typically large enough for a few thousand words – for model training and improvement. This presents unprecedented risks to trade secret owners as proprietary information may be inadvertently or maliciously publicly disclosed through use of LLMs and context windows. As LLM solutions continue to evolve, organizations should continue to evaluate policies and procedures that protect against these related risks.

This article examines how LLMs process text and potentially disclose trade secret information; the potential adverse impacts of the disclosure of trade secrets by LLMs; the reasonable measures trade secret owners may implement to protect against this risk, and the remedies available to trade secret owners when proprietary information is inadvertently or maliciously disclosed via LLMs. We also discuss potential discovery strategies in litigation, address how the disclosure of trade secrets via LLMs is like other types of disclosures and evaluate insurance coverage options.

Open-AI released the first LLM, known as GPT-3, in 2020. Today, ChatGPT-4.5 and other LLMs such as DeepSeek, Qwen2.5-Max, Grok 3, LlaMA 3.3, Claude, and Gemini 2.5 are commonly used by individuals, businesses, students, educators, and other organizations. These powerful tools offer unprecedented capabilities for information processing and content creation. However, they also introduce novel risks to intellectual property owners, particularly concerning the protection of trade secrets.

For many organizations, trade secrets represent a critical form of intellectual property, often comprising their most valuable and sensitive information – manufacturing processes, customer lists, algorithms, product formulas, customer-specific pricing, and other business strategies. Unlike patents or copyrights, trade secrets derive their value precisely from remaining confidential. Once publicly disclosed, they lose protection and value permanently.

HOW LLMs PROCESS TEXT DATA

Understanding how LLMs process text data is important to properly evaluate the risks they pose to the disclosure of trade secrets. LLMs use a machine learning technique called deep learning to process text from books, articles, web pages, and other sources. Context windows are the space or memory available for users of LLMs to prompt a response. When an LLM user inputs information into a context window during a chat session, several processes within the LLM may create potential disclosure of proprietary information, including:

- **Input Processing:** When text is entered into an LLM context window during a chat session, that text becomes part of the immediate conversation context. The LLM uses this context to generate output, referred to as "completions."

- **Model Training:** While the providers of most LLMs indicate that they do not utilize the text entered in context windows to train their LLMs without consent, policies vary significantly between providers. Some providers may utilize user text for model improvement, fine-tuning, or to enhance the quality of completions unless users explicitly opt out.

- **Data Storage:** The text users input into context windows during chat sessions are often stored on providers' servers for a certain period. Even with the most robust security measures, this presents additional security risk to trade secret owners.

- **Pattern Recognition:** LLMs are designed to recognize patterns within seemingly disparate textual data. A trade secret disclosed piecemeal across multiple chat sessions could potentially be reconstructed by an LLM as part of its completed response to related queries of third party users, even without explicit retention of the original texts containing the proprietary information.

The key vulnerability lies in the fact that once proprietary information is input into a public LLM, the trade secret owner loses effective control over that information. The LLM provider becomes an unwitting custodian of the data, with varying levels of safeguards against its public disclosure or use.

POTENTIAL ADVERSE IMPACTS OF TRADE SECRET DISCLOSURE VIA LLMs

The potential adverse impacts of the public disclosure of trade secrets through LLMs may be significant, and include:

- **Permanent Loss of Protection:** Trade secret protection requires that the information remains confidential to the owner and not be within the public domain. Courts have consistently held that once a trade secret is within the public domain – regardless of how that disclosure occurred – the information permanently loses its status as a trade secret. This is different than disclosures to third parties which might be contained or redressed through an injunction or legal remedy.

- **Exponential Public Disclosure:** Unlike traditional disclosures which may be limited to a specific business partner, vendor, customer, competitor, or publication, LLMs can potentially disclose proprietary information entered in context windows during "private" chat sessions with thousands or even millions of users worldwide, creating a non-containable exponential level of public disclosure. What is worse is that third party recipients of proprietary information via LLMs have no confidentiality obligations to the original owner. And it may be impossible to identify those who have accessed the information, making enforcement against subsequent users more difficult.

- **Loss of Competitive Advantage:** By definition, trade secrets are protected as such because of the competitive advantage owners derive from their secrecy. Once competitors gain access to the proprietary information through an LLM's completed response, this advantage is irreparably lost.

- **Adverse Financial Impact:** The adverse financial impact of the loss of trade secrets may be significant. A 2023 analysis by Ocean Tomo of companies that comprise the S&P500 indicates that intangible assets commanded 90% of the combined market values as of 2020. Thus, the public disclosure of key trade secrets may permanently impact a company's market value, especially companies driven by innovation.

- **Reputational Damage:** Beyond the direct adverse financial impact, companies may sustain reputational harm and a loss of goodwill among customers, investors, other stakeholders, and the public at-large if valuable trade secrets are publicly disclosed.

The most grievous impact of disclosure via LLMs may be that a trade secret owner may remain unaware of the disclosure until the damage is done – when competitors implement similar processes, or when the once secret information becomes common knowledge within an industry.

REASONABLE MEASURES TO PROTECT TRADE SECRETS FROM LLM RISKS

Organizations should consider implementing reasonable measures to protect against the risk of trade secret disclosure via LLMs by both corporate users and third parties.

A. Reasonable Measures for Corporate User Disclosures

- **Develop Clear LLM Usage Policies:** Trade secret owners should establish clear corporate policies that identify the types of information that may and may not be input into the context windows of LLMs during chat sessions. These policies should explicitly prohibit the input of trade secrets and other proprietary business information.

- **Utilize Private or On-Premises LLM Solutions:** Consider deploying private LLM solutions on-premises that operate entirely within the organization's secure environment, eliminating the risk of trade secret disclosure to external systems and third parties.

- **Implement Technical Controls:** Deploy IT solutions capable of scanning and blocking the transmission of identified proprietary information through the context windows of LLMs, similar to data-loss-prevention (DLP) solutions.

- **Negotiate Carefully with LLM Providers:** Negotiate agreement terms with providers of LLMs that specifically address data usage, retention, and confidentiality. Ensure the agreements include provisions that prohibit the use of proprietary information for model training and that require prompt deletion of text entered in context windows after the end of a chat session.

- **Compartmentalize Proprietary Information:** Limit complete knowledge of trade secrets and other proprietary information to essential personnel only, reducing the likelihood that any individual employee could inadvertently or intentionally enter an entire trade secret into the context window of an LLM.

- **Periodic Training and Awareness:** Educate employees about the risks associated with disclosing proprietary information during LLM chat sessions and provide clear examples of what constitutes appropriate versus inappropriate use of LLMs.

- **Monitor LLM Usage:** Implement monitoring solutions to track employees' interaction with LLMs and regularly audit interactions for potential inappropriate use, including the disclosure of proprietary information.

B. Reasonable Measures for Third-Party Disclosures

- **Update Confidentiality Agreements:** Update vendor / partner NDAs and employee confidentiality agreements to explicitly prohibit the input of proprietary information and trade secrets into the context window of LLMs or other AI solutions.

- **Utilize LLM and AI-Specific Agreements:** When sharing trade secrets with vendors, business partners, or employees, execute agreements with provisions that prohibit the use of LLM and AI solutions to process, analyze, or store proprietary information.

- **Implement Usage Logging:** Require partners and vendors to maintain logs of how and where your trade secret information is stored, processed, and accessed, including, for example, explicit prohibition of inputs in LLM context windows.

- **Regular Compliance Certification:** Require periodic certification from partners and vendors confirming that they have not entered your trade secrets into an LLM solution or AI system context window.

- **Watermarking and Tracking:** Where feasible, implement digital watermarking or other tracking mechanisms that help identify the source if confidential information is leaked.

These measures may help satisfy the "reasonable efforts to maintain secrecy" requirement of trade secret laws and create a stronger position for legal action if misappropriation occurs.

DISCOVERY STRATEGIES IN TRADE SECRET LITIGATION INVOLVING LLMs

As the legal landscape adapts to the challenges posed by AI and LLMs, attorneys handling related trade secret misappropriation disputes should consider novel discovery approaches:

- **Expanding Discovery Requests:** Prepare and serve interrogatory and document requests that specifically address the defendant's use of LLMs or AI systems in relation to the asserted trade secrets. Sample language might include:
  - "Identify all instances where you input, uploaded, or otherwise provided the plaintiff's trade secret information or any portion thereof to a context window or other prompt of an LLM or AI system."
  - "Produce all transcripts, logs, other business records, and / or communications with any LLM or AI system regarding [specific trade secret subject matter]."

- **LLM Usage Logs:** Request defendant's logs of LLM usage, including timestamps, prompts, and responses (i.e., completions) that might contain or reference the asserted trade secrets.

- **Forensic Analysis:** Conduct forensic examination of defendants' servers, computers, and other devices to identify relevant interactions with LLM solutions during the relevant time periods.

- **Third-Party Subpoenas:** Consider issuing subpoenas to LLM providers for records of the defendant's usage, subject to appropriate confidentiality protections.

- **Deposition Questions:** Develop specific deposition questions addressing whether and how defendants utilized LLMs when working with the asserted trade secrets.

- **Expert Analysis:** Engage experts who can analyze whether the defendant's outputs (products, processes, etc.) show evidence of being informed by LLM-processed versions of the plaintiff's asserted trade secrets.

This comprehensive discovery approach may help to establish whether trade secrets were entered into LLMs as part of a defendant's use, attempted design-around, or improvement of the asserted trade secret information.

PREVIOUS CASES INVOLVING DISCLOSURE OF TRADE SECRETS

While disputes alleging trade secret misappropriation via use of LLMs are still emerging, previous disputes involving public disclosure through other means offer guidance:

A. Tekmira Pharmaceuticals Corp. v. Alnylam Pharmaceuticals, Inc.

The 2011 case of Tekmira Pharmaceuticals Corp. v. Alnylam Pharmaceuticals, Inc. 12 presents a scenario involving the public disclosure of trade secrets. In that case, Tekmira alleged that Alnylam improperly disclosed its trade secrets related to lipid nanoparticle technology for drug delivery in certain US patent applications. Alnylam originally obtained access to Tekmira's trade secrets through a collaboration agreement with Tekmira.

Ocean Tomo was retained to quantify Tekmira's recovery, which included the lost value of the Tekmira trade secrets allegedly disclosed by Alnylam. The case ultimately settled for USD 65 million 13 and established an important principle: a trade secret defendant may be liable for the public disclosure of a plaintiff's trade secrets even if the defendant originally gained access to and subsequently disclosed those trade secrets via seemingly legitimate means, such as through collaboration agreements and US patent applications.

This principle may apply to scenarios involving the use of LLMs. For example, a party that inputs another's trade secrets into a context window or similar LLM prompt which results in the public disclosure through subsequent LLM responses to third parties, could face similar liability and damage claims based on lost value, as in the Tekmira case.

B. Group One, LTD v. Hallmark Cards, Inc.

In Group One Ltd. v. Hallmark Cards, Inc., a case involving both patent and trade secret issues, the Federal Circuit affirmed a Missouri District Court opinion. The district court held that, under a property theory of trade secrets, once Group One's asserted trade secrets were disclosed in a published Patent Cooperation Treaty (PCT) application, their status as trade secrets was destroyed.

Based on the district court finding, the Federal Circuit affirmed that damages for misappropriation "were limited to any 'head-start' advantage Hallmark obtained by using the trade secrets between the date Group One disclosed them to Hallmark and the data the PCT application was published."

These cases illustrate that a legitimate means of public disclosure (i.e., for a patent application) is not a mitigating factor that prevents the loss of trade secret protection. In addition, these cases also illustrate that a legitimate means of public disclosure does not offset or mitigate the amount recoverable by a trade secret owner when a misappropriator is responsible for the disclosure.

Based on these and other opinions, by extension, a party which inputs another's trade secrets into an LLM context window – potentially leading to disclosure via LLM responses to third-party inquiries – could be held liable for that disclosure and responsible for the lost value to the trade secret owner.

A DUAL THREAT: COPYRIGHT INFRINGEMENT AND TRADE SECRET MISAPPROPRIATION

The input of trade secret documents into a context window of an LLM solution may raise implications of both copyright infringement and trade secret misappropriation.

A. Copyright Liability Implications

Business records containing trade secrets are often also protected by copyrights, which generally offers protection against another's unlicensed reproduction, distribution, or creation of derivative works. When a party enters copyrighted works into a context window of an LLM, the following copyright-related issues may be raised:

- **Unauthorized Reproduction:** Entering text or other materials into the context window of an LLM creates a copy, potentially violating the copyright owner's exclusive right of reproduction.

- **Creation of Derivative Works:** The LLM processes and transforms the work entered into the context window, potentially creating unauthorized derivative works.

- **Distribution to Third Parties:** If the LLM provider uses the copyrighted work for training the LLM or if the processed work becomes available to third parties, this may constitute unauthorized distribution.

While fair use defenses might be raised, courts would likely consider the commercial and potentially competitive nature of the use, the potential harm to the copyright owner, and the substantiality of the portion used – all factors that can weigh against a finding of fair use in the copyright context.

B. Copyright Damages Implications

A finding of copyright infringement and trade secret misappropriation may result in larger claims for monetary recovery:

- Copyright awards can include statutory damages (up to USD 150,000 per work for willful infringement), a copyright owner's actual losses, and an infringer's related profits to the extent they exceed an owner's losses.
- Trade secret misappropriation awards can likewise include the owner's actual losses, the defendant's unjust enrichment (avoided costs + profits from sales of accused products), reasonable royalties, and potentially exemplary damages.
- Both statutes provide for the recovery of attorney's fees as well as injunctive relief.

This dual liability significantly increases the potential financial consequences for defendants who input trade secret information into LLMs.

INSURANCE COVERAGE FOR LLM-RELATED TRADE SECRET DISCLOSURE

Companies facing exposure for trade secret misappropriation through use of LLMs may find potential coverage under commercial general liability (CGL) policies, though specific outcomes will likely depend on policy language and jurisdiction.

A. Potential Policy Provisions Providing Coverage

Advertising Injury Coverage: Certain Commercial General Liability ("CGL") policies cover "advertising injury," which may result from the disclosure of confidential and proprietary information. CGL policies may define "personal and advertising injury" to include "oral or written publication, in any manner, of material that . . . disparages a person's or organization's goods, products or services." 17 If certain types of trade secrets are disclosed through an LLM solution (e.g., internal competitor assessments and/or internal product comparisons) and subsequently published to third parties, this coverage may be triggered.

- **Property Damage Coverage:** Some property insurance policies define "property damage" to include loss of use of tangible property and/or damage to electronic data. Courts in some jurisdictions have recognized trade secrets as property that can be lost or damaged.

- **Cyber Liability Coverage:** Some insurance policies that cover cyber liability may explicitly cover unauthorized disclosure of confidential information via use of LLMs.

B. Coverage-Related Issues

Companies seeking insurance coverage for improper LLM-related disclosures of trade secrets should consider the following issues:

- **Intentional Acts Exclusions:** Most policies exclude coverage for intentional acts, which could apply if an employee deliberately discloses trade secrets via an LLM.

- **Data Exclusions:** Some policies contain exclusions for electronic data or information-related claims.

- **Prior Knowledge Exclusions:** Insurers may deny coverage if the insured was aware of the potential disclosure before the policy period.

- **Notice Requirements:** Prompt notice to insurers is typically required when a potential claim arises.

CONCLUSION

LLMs are a type of AI system that offers unprecedented capabilities for information processing and content creation. They also introduce novel risks to IP owners, particularly concerning the protection of trade secrets. For many organizations, trade secrets represent a critical form of IP. Unlike patents or copyrights, trade secrets derive their value precisely from remaining confidential, and once publicly disclosed, they lose value permanently.

The risk and legal issues presented by LLMs represent a new frontier in IP law. Parallels of prior cases concerning the disclosure of trade secrets through legitimate means – such as patent applications – offer insight as to the issues presented by LLMs. However, the potential scale and exponential speed of public disclosure presented by LLMs magnify the potential losses, potential liability and monetary recovery, and urgency of establishing protective measures.

As LLM solutions continue to evolve, organizations should continue to evaluate the policies and procedures that protect against their related risks.

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THE IMPACT OF COUNTERFEIT GOODS IN GLOBAL COMMERCE

By David Fraser, Matthew Brown, and James E. Malackowski

INTRODUCTION

Counterfeiting has been described as "the world's second oldest profession." In 2018, worldwide counterfeiting was estimated to cost the global economy between USD 1.7 trillion and USD 4.5 trillion annually, as well as resulting in more than 70 deaths and 350,000 serious injuries annually. It is estimated that more than a quarter of US consumers have purchased a counterfeit product.

The counterfeiting problem is expected to be exacerbated by the unprecedented shift in tariff policy. Tariffs, designed as an import tax or duty on an imported product, are often a percentage of the price and can have different values for different products. Tariffs drive up the cost of imported brand name products but may not, or only to a lesser extent, impact the cost of counterfeit goods.

In this article, we examine the extent of the global counterfeit dilemma, the role experts play in tracking and mitigating the problem, the use of anti-counterfeiting measures, and the potential impact that tariffs may have on the flow of counterfeit goods.

Brand goods have always been a target of counterfeits due to their high price and associated prestige. These are often luxury goods and clothing, but can also be pharmaceuticals, cosmetics, and electronics. The brand name is an indication of quality materials, workmanship, and technology. People will pay more for the "real thing," or decide to buy something cheaper that looks "just as good." In many cases, "just as good" is a counterfeit of the brand name product.

A tariff is an import tax or duty that is typically paid by the importer and can drive up the cost of imported brand name products. For example, a tale study has shown that shoe prices may increase by 87% and apparel prices by 65%, due to tariffs. On the other hand, counterfeit products don't play by the rules and can often avoid paying tariffs, such as the case of many smaller, online transactions, shipped individually.

Therefore, we expect to see an increase in counterfeit products as well as a need to increase efforts to reduce the economic losses of counterfeiting.

THE SCALE OF THE COUNTERFEIT PROBLEM

In their 2025 report, the Organisation for Economic Co-operation and Development (OECD) and the European Union Intellectual Property Office (EUIPO), estimated that in 2021, "global trade in counterfeit goods was valued at approximately USD 467 billion, or 2.3% of total global imports. This absolute value represents an increase from 2019, when counterfeit trade was estimated at USD 464 billion, although its relative share decreased compared to 2019 when it accounted for 2.5% of world trade. For imports into the European Union, the value of counterfeit goods was estimated at USD 117 billion,
or 4.7% of total EU imports."[1]

In a 2020 report, the US Patent and Trademark Office (USPTO) estimated the size of the international counterfeit market as having a "range from a low of USD 200 billion in 2008 to a high of USD 509 billion in 2019."

According to the OEDC / EUIPO General Trade-Related Index of Counterfeiting for economies (GTRIC-e), China continues to be the primary source of counterfeit goods,
as well as Bangladesh, Lebanon, Syrian Arab Republic, and Türkiye.

Table 2.1. Top economies most likely to be provenance of counterfeit goods, 2020-21

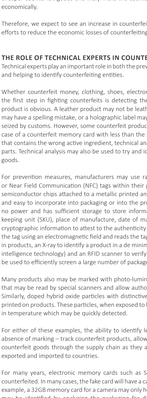
GTRIC-e average 2020-2021

Provenance	GTRICe
Hong Kong (China)	1
Türkiye	1
Lebanon	1
Syrian Arab Republic	1
Andorra	1
Albania	1
Moldova	0.998
Cambodia	0.997
China	0.996
Sint Maarten	0.992
Senegal	0.972
Benin	0.924
Bahrain	0.878
Georgia	0.814
Mozambique	0.781
Bangladesh	0.749
Iran	0.715
Panama	0.705
Liberia	0.680
Jordan	0.660
Nigeria	0.611
Colombia	0.604
Saudi Arabia	0.536
Lao People's Democratic Republic	0.526

Source: OECD-EUIPO calculations.

Based on customs seizures in 2020-21, the most common items are clothing (21.6%), footwear (21.4%), and handbags, followed by electronics and watches. Based on the value of goods seized, watches (23%) and footwear (15%) had the highest value. However, it should be noted that items that are easier to detect and seize are likely to be overrepresented in the data.

Figure 2.3. Top 20 product categories for counterfeit and pirated goods, 2020-21



Source: OECD global customs seizures data.

Although the share of watches declined, and electronics, toys, and games increased, it remains unclear whether this represents a long term trend or just a short term fluctuation. In general, high value products in high demand continue to be counterfeited.
Data from the US Library of Congress indicates that 60% – 80% of counterfeit products are purchased by American consumers. The US accounts for approximately 5% of the world's consumers; however, it represents greater than 20% of the world's purchasing power.

Though it is still possible to find counterfeit products at local markets, a large number of counterfeit goods are obtained through online retailers and shipped directly to consumers as small parcels classified as de minimis trade. This allows for the duty-free import of products up to USD 800 in value. Counterfeit items may be knowingly or unknowingly purchased from online retailers and shipped directly to consumers, duty-free. Purchased products can be shipped via postal services, classified as de minimis trade. Approximately 79% of packages seized contained less than 10 items. Given the size and volume of the packages arriving daily, many or most will evade scrutiny by customs officials. This means of import is increasing over time. In 2017-19 it was 61% of seizures. By 2020-21, it was 79%.

ECONOMIC IMPACT OF COUNTERFEITING

The scale of the counterfeiting problem has significant impacts on the US economy, US business interests, and US innovations in lost sales and lost jobs. Moreover, counterfeit products are often made quickly and cheaply, using materials that may be toxic. The companies producing these goods may not dispose of waste properly and may dump it into waterways, causing significant environmental consequences.

Counterfeit products from electrical equipment and life jackets to batteries and smoke alarms may be made without adhering to safety standards or be properly tested. These products may fail to function when you need it and may lead to fire, electric shock, poisoning, and other accidents that can seriously injure and even kill consumers.
Counterfeit cosmetics and pharmaceuticals can also lead to injuries by either including unsafe ingredients or by failing to provide the benefits of the real product.

THE TARIFF COUNTERFEIT CONNECTION

Tariffs may be seen as a tax on consumers and raise the price of imported products that are already the target of counterfeiters such as luxury leather products and apparel. It's commonly understood that raising prices on genuine products can only drive up the demand for counterfeit goods. In general, consumers will have less disposable income and the brand goods they desire will cause them to look to increase the demand for counterfeit goods.

Although recent changes removing the USD 800 tax exemption on de minimis shipments from China and Hong Kong will make it more expensive for counterfeiters to ship their goods internationally, tariffs are typically applied as a percentage of the cost of an object. This will cause the price of more expensive legitimate goods to increase even more than the cheaper counterfeit goods and likely make the counterfeit products even more attractive economically.

Therefore, we expect to see an increase in counterfeit products as well as an increase in efforts to reduce the economic losses of counterfeiting.

THE ROLE OF TECHNICAL EXPERTS IN COUNTERFEIT DETECTION

Technical experts play an important role in both the prevention and detection of counterfeits and helping to identify counterfeiting entities.

Whether counterfeit money, clothing, shoes, electronics, cosmetics or pharmaceuticals, the first step in fighting counterfeits is detecting them. In some cases, the counterfeit product is obvious. A leather product may not be leather, a logo may be wrong, packaging may have a spelling mistake, or a holographic label may be missing. These products may be seized by customs. However, some counterfeit products are very difficult to detect. In the case of a counterfeit memory card with less than the stated capacity or a pharmaceutical that contains the wrong active ingredient, technical analysis may be needed to identify the parts. Technical analysis may also be used to try and identify the source of the counterfeit goods.

For prevention measures, manufacturers may use radio frequency identification (RFID) or Near Field Communication (NFC) tags within their products. RFID tags are microscopic semiconductor chips attached to a metallic printed antenna. The tag itself may be flexible and easy to incorporate into packaging or into the product itself. A passive RFID requires no power and has sufficient storage to store information such as product name, stock keeping unit (SKU), place of manufacture, date of manufacture, as well as some sort of cryptographic information to attest to the authenticity of the tag. A simple scanner powers the tag using an electromagnetic field and reads the tag. If manufacturers include RFID tags in products, an X-ray to identify a product in a de minimis shipment (perhaps using artificial intelligence technology) and an RFID scanner to verify the authenticity of the product can be used to efficiently screen a large number of packages.

Many products also may be marked with photo-luminescent dyes with unique properties that may be read by special scanners and allow authorities to detect legitimate products. Similarly, doped hybrid oxide particles with distinctive photo-responsive features may be printed on products. These particles, when exposed to laser light, experience a fast increase in temperature which may be quickly detected.

For either of these examples, the ability to identify legitimate products, or – due to the absence of marking – track counterfeit products, allows authorities to map the flow of the counterfeit goods through the supply chain as they are manufactured, shipped, and are exported and imported to countries.

For many years, electronic memory cards such as SD cards and USB sticks have been counterfeited. In many cases, the fake card will have a capacity much smaller than listed. For example, a 1GB memory card for a camera may only hold 1GB. Sometimes, these products may be identified by analyzing the packaging for discrepancies from the brand name products. In other cases, software must be used to verify the capacity and performance of each one, which is time-consuming when analyzing a large number of products.

Forensic investigators, comprised of forensic accountants and forensic technologists, are heavily involved in efforts to combat this illicit trade. By analyzing financial records, supply-chain data, and transaction histories, they trace the origins and pathways of counterfeit products. Their work often involves identifying suspicious procurement patterns, shell companies, and irregular inventory flows that signal counterfeit activity.

Forensic investigators often begin by mapping the counterfeit supply chain, an intricate web that often spans continents. Using data analytics, transaction tracing, and inventory audits, they identify anomalies in procurement, distribution, and sales records. These methodologies help pinpoint the origin of counterfeit goods, the intermediaries involved, and the final points of sale. By reconstructing the flow of goods and money, forensic investigators can begin to unmask activities.

Cross-border partnerships are essential for tracking assets, sharing insights, and coordinating with financial regulators. Public-private partnerships further enhance the effectiveness of anti-counterfeiting efforts. Forensic investigators often serve as bridges between government agencies, brand owners, and financial institutions, facilitating the exchange of key information. These partnerships increase information-sharing, streamline investigations, and amplify the impact of enforcement actions. A promising development in this space is the World Customs Organization's Smart Customs Project, which integrates artificial intelligence to detect and intercept counterfeit goods. Forensic investigators can leverage this initiative by analyzing AI-generated alerts and incorporating them into broader financial investigations, which allows for faster and more accurate identification of illicit networks.

Jurisdictional complexity is a major hurdle in anti-counterfeiting efforts. Forensic investigators work closely with legal teams to navigate these challenges to ensure that investigations comply with local laws, and evidence is admissible and can withstand scrutiny in court, especially when dealing with offshore accounts and international money laundering schemes.

Forensic investigators follow the money, tracing illicit profits through bank accounts, shell companies, and cryptocurrency transactions. Their findings not only help recover stolen assets but also support disputes by providing expert testimony that quantifies financial losses and identifies the bad actors.

CONCLUSION

Imitations of brand name products have become more convincing, harder to detect, and the sources of the counterfeit goods more difficult to identify. While counterfeiting clearly has evolved because of technological advancements, e-commerce, and the growing sophistication of bad actors, the process has now been complicated even further by the unpredictable tariff and trade policies that are affecting businesses worldwide.

Consequently, companies need to take a multi-faceted approach to these new challenges introduced into the counterfeiting of products by tariffs. By engaging high-tech product authentication measures, utilizing technology-based alerts about counterfeits, and retaining the specialized skills of forensic investigators and other experts, companies will be able to navigate the risks posed by the complex and changing relationship between tariffs and counterfeit goods.

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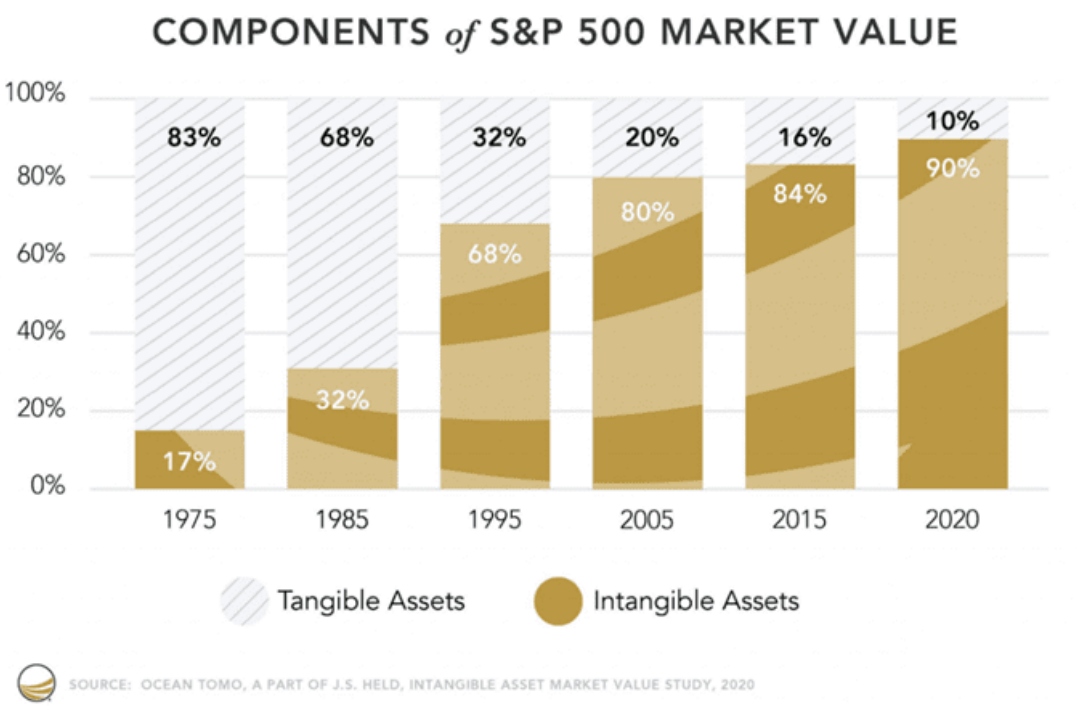
EVOLVING LANDSCAPE OF TECHNOLOGY RIGHTS ENFORCEMENT

By James E. Malackowski and Cole Kartman

INTRODUCTION

Established 25 years ago at the turn of the century by the World Intellectual Property Organization (WIPO), World IP Day celebrates the unique contributions made by global inventors and creators. Over the past half century, intangible asset value has skyrocketed from 17% of S&P 500 market value in 1975, to 68% in 1995, to more than 90% today. Ocean Tomo leadership and their predecessor firms have been an active participant in IP markets for decades and have seen this evolution firsthand.



In celebration of World IP Day on April 26th and the role that different types of IP rights play in encouraging innovation and creativity, we present a more recent review of trends across IP types over the last decade. Our review discusses and analyzes the evolution of Technology Rights Enforcement (TRE) specific to patents, trade secrets, and copyrights. As described by the WIPO, TRE is "a crucial legal mechanism [for businesses] to protect their investment and ensure fair competition." Patents, trade secrets, and copyrights each provide a unique tool for a company's TRE strategy. Patent protection lasts 20 years, copyright protection extends up to 70 years after the author's death, and trade secrets have an indefinite life so long as they are not disclosed to the public. Between patents and trade secrets, IP owners must make the choice to disclose their inventions to the public in exchange for a 20-year monopoly, or to keep their inventions as trade secrets in hopes that competitors are unable to reverse engineer such innovation. A decade ago, we predicted that trade secrets would start to garner greater focus. We review the last ten years and update our view to now predict a greater balance between patent, trade secret, and copyright TRE.

EVOLVING PRIORITIES IN INTELLECTUAL PROPERTY

The past decade has witnessed significant transformation to the management of intellectual property (IP) as an asset, especially as it relates to monetization and enforcement of technology rights. Traditionally, organizations prioritized patents—investing heavily in their development, monetization, and enforcement. However, recent trends indicate a moderate decline in patent litigation filings, from approximately 5,800 case filings in 2015 to 3,800 in 2024. In 2017, the TC Heartland decision impacted venue requirements and restricted patent owners' discretion to file in the venue of their choice. This has resulted in many new cases being filed in Delaware where many entities are incorporated. Unable to choose their venue, patentees have been forced to adjust their case strategy or consider whether to file at all if a litigation strategy was dependent on filing in a specific venue where patent case schedules are expedited or judicial experience is seen to best fit the case at hand. Patent litigation filings saw a decline from approximately 4,500 case filings in 2016 to just under 4,000 in 2017, the year after the TC Heartland decision.

Feedback we receive from the market suggests that starting in 2018, shifts in judicial interpretations—particularly more restrictive decisions regarding patent eligibility, injunctions, and damages—led companies to reassess their IP strategies. It has become increasingly frequent to invalidate patents as abstract ideas under Section 101 of the Patent Act. Related to damages, in 2021, the US Court of Appeals for the Federal Circuit (CAFC) in Omega Patents, LLC v. CalAmp Corp. rejected a patentee's licensing policy as a means of apportionment and imposed a stricter standard of accounting for the distinguishing facts between a license agreement and a contemplated hypothetical negotiation. More recently, in 2023, the CAFC in VLSI Technology LLC v. Intel Corp. vacated a USD1.5 billion jury verdict citing that VLSI had erred by estimating the benefits of the patented invention by performing testing of non-accused features. While other CAFC decisions during this same period were arguably favorable for patentees, others appear to have contributed to lower patent case filings since 2015.

Another factor we believe likely contributing to lower patent case filings is increased scrutiny over litigation transparency. Such heightened attention on who may be controlling a non-practicing entity (NPE) or litigation-funded plaintiff may discourage filings by plaintiffs not willing to disclose the existence or the identity of investors or ownership structure. Such transparency requirements have been prominent in the District of Delaware where Judge Connolly has issued a standing order ordering parties to disclose "the name of every owner, member, and partner of the party, proceeding up the chain of ownership until the name of every individual and corporation with direct or indirect interest in the party has been identified." Should the "Litigation Transparency Act of 2025" make its way through Congress and become law, the future impact on patent case filings will likely be greater.

Looking further to the future, it is worth noting that consideration of the "RESTORE Patent Rights Act of 2024" pending in Congress may temper the decline in cases discussed above as this legislation is seeking to strengthen rights of patentees by instituting a rebuttable presumption of injunction for patent infringement. If passed, this bill would strengthen patent TRE position and may lead to a rebound in patent case filings.

RISE IN TRADE SECRET LITIGATION

In response to the contemporary challenges associated with patent enforcement, many companies have begun to place greater focus on the protection and monetization of trade secrets. This shift is evident in the increasing number of trade secret litigation cases. According to data from Lex Machina, the enactment of the Defend Trade Secrets Act (DTSA) in 2016 resulted in a notable surge in federal trade secret cases, with filings consistently remaining above pre-DTSA levels. While there was a brief decline during the COVID-19 pandemic, the number of cases rebounded, with over 1,200 cases filed in 2023 and over 1,300 in 2024 compared to less than 1,100 in 2015.

Enactment of the DTSA provided greater protection for trade secrets and has arguably made it easier to establish the existence and misappropriation of trade secrets. The definition of a trade secret under DTSA is considered broad by many, allowing trade secret holders additional flexibility in what may be appropriately considered a trade secret, especially with respect to how trade secrets are defined for the purpose of litigation. In the first year following the enactment of the DTSA, trade secret case filings rose from less than 1,200 in 2016 to nearly 1,400 in 2017.

Certain circuits have now applied the DTSA to allow for damages on sales related to misappropriation occurring outside of the United States, contingent on if there was an "act in furtherance of the misappropriation in the US.". For example, in Motorola Solutions, Inc. v. Hytera Communications Corp., No. 1:17-cv-01973 (N.D. Ill.), a jury issued a verdict against Hytera ordering it to pay over USD765 million in damages for misappropriation of Motorola trade secrets. TRE considering foreign sales may lead to even further emphasis on the development, protection, and assertion of trade secrets. Large damage awards may also drive a rise in TRE via trade secret claims. As an example, in 2022, in Appian Corporation v. Pegasystems, Inc., No. 2020-07216 (Fairfax County Circuit Court), a jury found that Pegasystems misappropriated Appian's trade secrets and issued a verdict for the largest non-biotech damages claim to date of over USD2 billion.

EMERGENCE OF COPYRIGHT CONCERNS IN THE AIML DOMAIN

Traditional copyright cases have expanded in recent years to recognize the role copyrights play in providing data and content for training Artificial Intelligence and Machine Learning (AIML) technologies. These technologies often require vast amounts of data for training, raising concerns about the use of copyrighted material without authorization. This has led to a notable number of copyright infringement lawsuits against AI companies.

Over the last decade, annual filings of copyright cases have varied from year to year with approximately 5,200 in 2015, a low of approximately 3,400 in 2020 and a high of 7,650 in 2024 – more than double the 2020 figure. Notably, since May 2020, there has been a significant increase in lawsuits involving plaintiffs ranging from individual authors and visual artists to major media companies and music industry giants. Defendants include prominent AI developers like OpenAI, Meta, Microsoft, Google, Anthropic, and Nvidia. The outcomes of these cases may directly inform best practice for IP management within the AI industry as well as the broader digital information ecosystem.

While there has been a rise in AIML related litigation in recent years, this trend may not last. As AIML becomes more ubiquitous, the demand for training data and content will continue to rise, creating the need for AIML platforms to obtain content use rights to avoid copyright suits. To meet such needs, further development of an efficient and transparent, market-based transactional platform for licensing data and artistic content is likely. Such transactional platforms will continue to improve market transparency and efficiency, reduce transaction costs, and promote fair competition and pricing. Standardized markets for high quality data and content ensure content creators and data owners are fairly compensated for their contributions to AIML models and incentivize the creation of high-quality data and content for continued growth of AIML platforms. We expect that the recent rise in copyright cases for AIML will peak and then decline as markets for AIML licensing mature.

CONCLUSION

The IP landscape is continually evolving, influenced by technological advancements and changing legal interpretations. Organizations must remain agile, adapting their IP strategies to address emerging challenges and opportunities, particularly as AIML technologies become more prevalent and integrate into various sectors. Our review confirms the accuracy of our past prediction that trade secrets would become more prominent in companies' TRE strategies. Over the next decade, we predict companies will take a more balanced approach between patents, trade secrets, and copyrights, barring any significant legislative changes.

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THE NEED FOR AN EFFICIENT, MARKET-BASED TRANSACTIONAL PLATFORM FOR LICENSING DATA AND ARTISTIC CONTENT IN THE AI ERA

By Gregory Campanella

INTRODUCTION

Data and artistic content are essential inputs in the development of Artificial Intelligence (AI) and Machine Learning (ML) technologies. In the rapidly evolving landscape of AI, demand for high-quality data and artistic content is surging. Current methods of AI data collection, however, particularly data scraping, are risky and controversial due to the lack of provenance and the absence of compensation for owners and creators. Further, traditional methods of content licensing are inefficient and ill-suited to the dynamic needs of the AI era. There is a critical need for an efficient, market-based transactional platform that can streamline the licensing process for data and artistic content. An efficient, market-based transactional platform will not only facilitate seamless exchanges and ensure fair compensation for creators but also promote a sustainable ecosystem for both AI innovation and data and content development.

AI DEMANDS BOTH DATA QUANTITY AND QUALITY

AI and ML technologies are built on complex algorithms and models that use vast amounts of data; and based on these data, AI and ML models use pattern recognition to make predictions and generate content. The foundation of AI and ML lies in the data used for model training, fine-tuning and augmentation. Without sufficient and high-quality data, even the most sophisticated algorithms can fail to deliver usable or reliable results. This makes data an essential component in the development and deployment of AI and ML solutions.

AI and ML models require massive datasets to train effectively; and the quality and quantity of this data directly impact the performance and reliability of the models. Large quantities of data are needed for AI and ML models to identify and capture underlying patterns, enabling them to compress data from a wide array of examples and improve their predictive capabilities. Large data collection helps to minimize overfitting, where models can't generalize, performing well on training data, but poorly on new data. The diversity within a given data set ensures that models can handle different situations robustly, making them more reliable in real-world applications.

Large, diverse datasets are integral for developing reliable and effective AI and ML models. However, the quality of data is even more crucial to the success of AI and ML initiatives than quantity. High-quality data ensures that models learn from authentic, relevant, and diverse information, reducing hallucinations and enhancing their ability to provide relevant answers or generalize across different scenarios. Low-quality data, on the other hand, often results in erroneous output and unreliable models, regardless of the dataset size. Garbage in, garbage out. Models trained on high-quality data also require less time and computational resources to achieve optimal performance.

Artistic content plays a significant role in training models for tasks such as image and video generation, music composition, and multimodal outputs. Without diverse and high-quality artistic content, generative models like GANs (Generative Adversarial Networks) and VAEs (Variational Autoencoders) are unable to learn and generate 'new' creative works. Ultimately, high-quality data sets improve the adaptability of AI and ML models, enabling them to make more accurate predictions when the training data is representative of real-world scenarios.

DATA SOURCES

AI and ML models acquire data from a variety of sources without clear lineage or license for its use. Public data sets from platforms like Kaggle, UCI Machine Learning Repository, and government databases are widely used. Web scraping, which involves extracting data from websites using automated tools and scripts, is another common method. APIs provided by various platforms and services offer programmatic access to data; and licensing agreements with organizations and institutions can provide proprietary datasets that are not publicly available.

In addition to these "real" data sources, synthetic data generated by algorithms has been proposed as an alternative data source when real data is scarce, sensitive, or inaccessible. Training AI models on synthetic data, however, will likely lead to model degradation. Synthetic data may not sufficiently capture the full diversity and feature distribution of real-world data, resulting in models that are less robust, accurate, and unable to generalize well to new data. Synthetic data may also exaggerate imperfections present in the original data, which can lead to lower-quality models. Another significant concern when using synthetic data is model collapse. Model collapse occurs when AI models trained on data generated by other AI models lose data from the original data distribution, resulting in increasingly similar, less diverse and/or low-quality outputs. Ultimately, if the synthetic data are not carefully generated, they may introduce biases that were not present in the original data, leading to biased models that make inaccurate predictions.

DATA VALUE

Data acquisition for AI and ML training is currently a complex, and increasingly contentious process as media companies, content producers and enterprise customers recognize the significant value that AI and ML platforms derive through the commercialization of their IP and data assets. Recently, several noteworthy legal cases have emerged around AI and ML data acquisition and scraping practices. In 2023, more than 13 new content-related lawsuits were filed against AI companies. Notably, The New York Times filed a multi-billion-dollar lawsuit against Microsoft and OpenAI, the creator of ChatGPT, accusing them of copyright infringement and abusing the newspaper's intellectual property to train large language models (LLMs).

Adding to the contention is the growing consensus that data are becoming one of the most valuable forms of intellectual property (IP). As AI and ML technologies advance, the importance of high-quality, diverse datasets has surged, often surpassing the traditional value placed on other forms of IP. This value shift underscores the critical role data assets play in driving innovation and competitive advantage in the AI era.

In recognition of the value of data, AI and ML platforms are scrambling to acquire content use rights. However, blanket content licensing can be risky for both the AI platform and the content owner. AI and ML platforms may overpay, agreeing to high license fees based on the anticipated value of the data, only to find that the licensed data are not as useful or relevant as initially surmised.

For data owners, blanket licensing is a double-edged sword. For a struggling online magazine or newspaper, a blanket content license may be a welcome lump sum payment or short-term revenue stream. But when content owners do not fully understand the rights or value of the rights that are being granted, and the long-term benefits of data to AI and ML platforms, underpayment and / or loss of control is a real and significant risk as AI becomes a larger part of their distribution channel. Additionally, content owners may find it challenging to negotiate fair terms when they lack AI and AI customer usage data, bargaining power or the expertise needed to assess the potential long-term benefits and value of their data.

INFRASTRUCTURE FOR EFFICIENT MARKET-BASED DATA ACQUISITION AND LICENSING

The data sourcing, pricing, and usage challenges confronting data owners and AI and ML platforms highlight the benefits of an efficient, independent, and market-based transactional platform for enterprise data and artistic content. A transactional platform must be independent of the interest of both the buyer and seller to gain the trust of its users. An independent transactional platform will enable a more dynamic and balanced market for data and intellectual property, fostering AI and ML innovation while also protecting the rights of content creators and data owners, ultimately rewarding all participants in the AI value chain.

An independent, auditable transactional platform would significantly improve market efficiency and pricing. Moreover, a transparent marketplace for data and artistic content would streamline the process of buying and selling data and content, reducing transaction costs and eliminating the need for lengthy individual negotiations, paper contracts and royalty reports. By offering clear market pricing and licensing mechanisms, it would help establish fair market values for different types of data and content, ensuring that both buyers and sellers are adequately compensated and use rights are enforced. Additionally, the platform could incorporate tools for tracking and measuring the usage, attribution, and contribution of data and content, providing insights into its actual value and impact. This transparency would reduce information asymmetry and economic imbalances allowing all value chain participants to make more informed decisions and be compensated fairly for their contributions.

For a sustainable and efficient information economy, there must be both transparency and accountability. Further, in addition to accurate and timely information about prices, there must also be reliable mechanisms to track and measure the usage by, and contribution of, data and artistic content to AI and ML platforms. Accurate and real-time pricing, as well as robust mechanisms to track and measure the usage and contribution of data and artistic content to AI and ML platforms, would significantly improve market efficiency and thus enable market-based pricing. Price transparency allows market participants to make informed decisions, reducing information asymmetry and promoting fair competition. When data and content rights and usage are accurately tracked, it ensures that content creators and data owners are fairly compensated based on the value their contributions bring to AI and ML models. These conditions would not only incentivize the creation and sharing of high-quality data but also help to inspire trust between data providers and AI and ML developers (Developers). Additionally, dynamic pricing models, driven by real-time data, can adjust prices based on demand, usage patterns, and market conditions, ensuring that prices reflect the true value of data and content.

In addition to transparency, an efficient transactional platform must include easy, verifiable access to data provenance for diverse data sets and artistic content. Clear data provenance requires that the origin, quality, and legal status of the data is known to all users, reducing the risks associated with copyright infringement and unauthorized use. This clarity helps establish trust between data providers and Developers, facilitating smoother negotiations and fairer compensation agreements. Additionally, having a wide range of high-quality, well-documented datasets that are readily available allows Developers to distinguish and select the most relevant data for their needs, optimizing the performance of their models. This would reduce the significant time and resources spent on data acquisition and preparation, leading to cost savings and more competitive pricing, which benefits both data/content owners and Developers.

The benefits of an efficient data and content transaction platform are many. For Developers, access to more high-quality data will lead to improved model performance, lower computing costs and more rapid innovation. For Developers and data owners, access to such a transactional platform would significantly reduce the cost of finding counterparties, negotiating terms, and finalizing deals; reducing the time and resources spent on individual agreements. Standardized licensing deals can simplify negotiations and ensure that all parties understand the terms, which reduces legal fees and the complexity of individual negotiations. With transparent market pricing all parties can be assured that they are receiving fair compensation based on market demand and the actual value of their contributions. The platform connects data/content owners with a wider range of potential buyers, increasing the likelihood of finding suitable and competitive offers. Additionally, the platform can provide tools to track and measure the usage and value of data and content, ensuring that owners are compensated accurately and fairly based on actual usage.

Negotiating and valuing an upfront license for data and artistic content in AI and ML platforms presents significant challenges. The intrinsic value of data and content can be highly variable, depending on factors such as uniqueness, quality, relevance, and perceived impact on model performance. Additionally, the rapid evolution of AI and ML businesses makes it difficult to predict long-term value accurately. In contrast, a usage-based model enabled by an efficient transactional platform offers a more flexible approach. By compensating data/content owners based on their contributions, this model ensures that remuneration is aligned with the actual usage and benefits derived from their data and content. It also ensures that Developers do not overpay for the use of data/content, as payments are directly correlated to the actual value and usage of the data and content. This approach can integrate with various pricing models, including subscription, pay-per-use, and advertising-based monetization models, providing a scalable and dynamic framework that can accommodate diverse business needs and market conditions. This not only incentivizes high-quality contributions but also fosters a more sustainable and collaborative ecosystem for AI and ML development.

For data/content owners, an efficient transactional platform offers increased revenue streams, broader market reach, enhanced collaboration, efficient use of data and content assets, and the opportunity to establish industry standards and best practices. For Developers, an efficient transactional platform provides access to the verifiable, quality data needed for enhanced model accuracy, cost efficiency and accelerated time-to-market.

AI DATA AND IP LICENSING PROVIDERS

Although a usage-based transactional model enabled by an efficient, transparent transactional platform would address many of the use rights concerns currently faced by data/content owners and AI Developers, the adoption of such platforms is just beginning. Only a handful of companies have attempted, or are currently pioneering solutions, most of which have only announced fundraising and potential betas for their products.

In 2012, the intellectual property advisory firm Ocean Tomo launched the first intellectual property trading platform, Intellectual Property Exchange International (IPXI). IPXI aimed to create a marketplace for IP rights, allowing for the trading of unit license rights (ULRs). This innovative approach was designed to make IP transactions more efficient and transparent. Unfortunately, IPXI ceased operations in 2015, but its efforts were recognized as positively contributing to the global IP market.

Today, Personal Digital Spaces (PDS) is a noteworthy leader in the space. Offering an end-to-end data and IP licensing and market platform, PDS has a commercialized enterprise product, customers, and established leadership and development teams. The PDS platform allows data attribution/contribution to be recognized and tracked providing guarantees of integrity and accountability. Moreover, the platform integrates blockchain technology to enable real-time management and monetization of data / IP assets. PDS's platform supports multiple licensing strategies and pricing models such as subscription, pay-per-use, and advertising-based models. By facilitating a complete accounting and value exchange mechanism, PDS's platform ensures fair compensation for data owners and content creators while providing AI Developers with a scalable framework for their initiatives.

In addition to PDS, Story Protocol, a development-stage company, recently raised an impressive USD 80 million, at a valuation of USD 2.25 billion. Story Protocol, like PDS, intends to deploy a blockchain-based protocol for intellectual property management. Story Protocol's offering, however, is not yet commercially available and its product roadmap currently lacks comprehensive functionality.

Human Native AI, another early-stage company, is developing a platform designed to manage and monetize digital content. The company's goal is to create a decentralized marketplace where content creators can license their works to Developers for training purposes. Human Native AI was founded in April 2024, and its product is currently in beta. The company is working to build out its operating team and infrastructure to bring its solution to market.

CONCLUSION

While the concept of a usage-based transactional model for data/IP rights in AI and ML platforms holds great promise, its implementation remains in its early stages. As adoption and deployment of these platforms continues to develop, they promise robust solutions for secure, transparent, and fair management of data and content that enhances their value, ultimately benefiting both creators and Developers across AI and ML ecosystems.

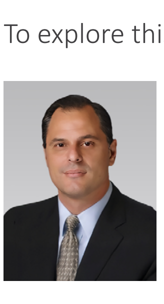
Ultimately, the development of an efficient and transparent, market-based transactional platform for licensing data and artistic content is essential for the continued growth and sustainability of AI and ML technologies. The emergence and significant investment in companies like Personal Digital Spaces and Story Protocol is indicative of the value-add these platforms will bring to the evolution of AI and ML.

For Developers, access to high-quality, diverse datasets will significantly enhance model performance and accelerate innovation. Transparent, market-based pricing and explicit data provenance will ensure that Developers can make informed decisions about the data they use; and a streamlined process for acquiring data will reduce the time and resources spent on data collection and preparation and legal fees, allowing Developers to focus on refining their models and algorithms.

For data/content owners, these platforms will offer an efficient way to monetize their assets. By providing tools to track and measure the usage of their data, these platforms will ensure that creators are fairly compensated based on the actual value of their contributions to AI and ML models, incentivizing the creation and sharing of high-quality data and fostering trust between data providers/content owners and Developers. The ability to reach a broader market will increase monetization opportunities and reduce the complexity of negotiating individual licensing agreements and the likelihood of costly legal proceedings.

As these platforms evolve, they will play a crucial role in accelerating innovation and collaboration, paving the way for a future where data and content rights are managed efficiently, and all can thrive.

To explore this topic further, please contact:



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AI AS INTELLECTUAL PROPERTY: A STRATEGIC FRAMEWORK FOR THE LEGAL PROFESSION

By James E. Malackowski & Eric Carnick

REDEFINING ASSET RECOGNITION AND PROTECTION IN THE AGE OF ARTIFICIAL INTELLIGENCE

The artificial intelligence revolution presents the legal profession with its most significant practice development opportunity since the emergence of the internet. AI spending across hardware, software, and services reached $279.22 billion in 2024 and is projected to grow at a compound annual growth rate of 35.9% through 2030, reaching $1.8 trillion. AI is rapidly enabling unprecedented efficiencies, insights, and capabilities in industry. The innovations underlying these benefits are often the result of protectable intellectual property (IP) assets. The ability to raise capital and achieve higher valuations can often be traced back to such IP. According to data from Carta, startups categorized as AI companies raised approximately one-third of total venture funding in 2024. Looking only at late-stage funding (Series E+), almost half (48%) of total capital raised went to AI companies. Organizations that implement strategic AI IP management can realize significant financial benefits.

At the same time, AI-driven enhancements have introduced profound industry risks, e.g., disruption of traditional business models; job displacement and labor market reductions; ethical and responsible AI concerns; security, regulatory, and compliance challenges; and potentially, in more extreme scenarios, broad catastrophic economic consequences. Such risks are exacerbated by the tremendous pace of AI development and adoption, in some cases surpassing societal understanding and regulatory frameworks. According to McKinsey, 78% of respondents say their organizations use AI in at least one business function, up from 72% in early 2024 and 55% a year earlier.

This duality – AI as both a catalyst and a disruptor – is now a feature of the modern global economy. There is an urgent need for legal frameworks that can protect AI innovation, facilitate the proper commercial development and deployment of AI-related IP, and navigate the risks and challenges posed by this new technology. Legal professionals who embrace AI as IP™ will benefit from this duality. Early indicators suggest significant advantages for legal practitioners who develop specialized AI as IP expertise, while traditional IP practices may face commoditization pressures.

This article addresses that need by presenting a comprehensive framework for AI intellectual property management, grounded in established legal principles and empirical market data. We demonstrate that AI systems constitute recognizable intangible assets under International Financial Reporting Standards, require multi-faceted protection strategies, and create substantial opportunities for legal practitioners willing to develop specialized expertise in this emerging field.

THE NATURE OF AI SYSTEMS AS INTELLECTUAL PROPERTY

AI systems are composed of three foundational components: data, compute, and algorithms. These components can be viewed through the lens of IP, offering distinct opportunities for asset recognition, protection, valuation, and monetization.

DATA

Data encompasses the information AI is trained on or information the AI retrieves from the web to augment its responses (Retrieval Augmented Generation, or RAG). Among the three foundational components of AI, data often stands out as the most fundamental and valuable. High-quality, relevant, and contemporaneous data can significantly reduce reliance on complex algorithms and expensive compute resources. In many cases, data can drive superior AI performance, making it the cornerstone of AI value creation.

The demand for data by AI platforms has been compared to a "gold rush." Ilya Sutskever, co-founder and former Chief Scientist at OpenAI, stated that "data is the fossil fuel of AI." The high demand for data by AI platforms speaks to its value. Data for AI can come in various forms: text, audio, video, images, numerical data, and sensor data, among other types. Such data can be proprietary or public-facing. Depending on the data asset and a company's business objectives, such data may be protected in a variety of ways.

Data can be protected as a trade secret. The Uniform Trade Secrets Acts (UTSA) defines trade secrets as information that (i) "Derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use" and (ii) "Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." Thus, a trade secret is information with economic value due to its secrecy and the owner's efforts to keep it confidential. Trade secrets can encompass technical information, such as manufacturing processes, pharmaceutical testing data or commercial information, such as business strategies, supplier and client lists, and distribution methods.

Data can also be creative works, like books, articles, and artistic works. Here, data can be protected under copyright law. For creative works, copyright protection is the foundation for protecting the author's rights and fostering a vibrant creative environment. It allows authors and artists to control how their work is reproduced, distributed, displayed, and adapted, ensuring that they can reap the rewards of their creative labor. This protection is rooted in the idea that by offering such rights, creators are incentivized to produce and share new works, enriching the public good.

AI platforms have executed hundreds of licensing deals with book, news, and other media publishers, as well as creators of audio and/or visual works, to secure rights to creators' content. We discuss these deals further in the sections below.

COMPUTE

Compute refers to the underlying computational power that enables AI to train models, process data, and perform calculations. Compute is often measured in terms of floating-point operations per second (FLOPS), which is the number of calculations that a processor can do in a second. AI innovations that solve technical problems through specific implementations and produce improvements in system performance or efficiency can qualify for patent protection or could be protected as a trade secret. These practical applications and technical improvements often relate to the hardware (e.g., specialized chip) and physical infrastructure (i.e., datacenters) that house the computing hardware, storage, and networking equipment.

ALGORITHMS

At a high level, algorithms are a set of instructions or mathematical rules that AI systems follow to perform tasks like learning, predicting, or generating outputs. Algorithms may be protected by multiple types of IP. Algorithms may start as a conceptual framework. Patents can cover the functional aspects of an algorithm if it is new, non-obvious, and tied to a specific application, e.g., not purely an abstract mathematical formula. The source code implementing an algorithm can be eligible for copyright protection. This protects the specific expression of the algorithm in software code, not the functionality or any abstract logic. Trade secrets may protect confidential algorithms that cannot be reverse-engineered, like specific model weights or parameters.

DOWNSTREAM APPLICATIONS OF AI

Downstream applications of AI involve combining AI systems with other products are services, such as mobile apps, cloud platforms, hardware, or physical products. IP protection depends on the components involved and how they are integrated, but patents, trade secrets, and copyrights may all be relevant. For example, a system and method for an autonomous vehicle may combine sensor data, software code for processing the data, and physical components of the vehicle.

THE ASSET RECOGNITION TEST: APPLYING IAS 38 TO AI INNOVATIONS

To establish AI innovations as financially recognizable intellectual property, we must demonstrate that they meet established criteria for intangible asset recognition. International Accounting Standard 38 (IAS 38) provides the globally recognized framework for intangible asset identification and recognition, establishing four key criteria that AI innovations must satisfy.

The identifiability requirement mandates that intangible assets be separable from goodwill and arise from contractual or legal rights. AI innovations clearly satisfy this requirement through their technical distinctiveness and the ability to license, transfer, or independently commercialize specific AI components. Training datasets can be licensed separately from applications, model architectures can be transferred independently of implementation systems, and concrete applications of AI algorithms can be patented as distinct technical innovations.

The control criterion requires that organizations exercise legal and practical control over the asset's future economic benefits. AI developers typically maintain control through technical measures (access controls, encryption, proprietary interfaces), legal protections (patents, trade secrets, employment agreements), and operational controls (restricted access to training processes, proprietary methodologies). This multi-layered control structure satisfies the IAS 38 control requirement while providing practical protection against unauthorized use.

The measurement requirement demands that the asset's cost be reliably determinable and that future economic benefits be probable. AI development costs are typically well-documented, including computational expenses, personnel costs, data acquisition expenses, and infrastructure investments. The probability of future economic benefits is demonstrated through AI systems' ability to improve operational efficiency, enable new revenue streams, reduce costs, or create competitive advantages (at least in certain industries) that translate into measurable financial returns.

The monetization criterion is satisfied through AI innovations' proven ability to generate economic value through internal use, external licensing, technology transfer, or enhanced business valuations. Recent market data demonstrates substantial monetization potential, with Dow Jones (i.e., publisher of the Wall Street Journal) and OpenAI agreeing to a license worth more than $250 million over five years. Likewise, Amazon entered into a multiyear licensing deal to pay The New York Times at least $20 million a year to use a broad range of content from the media company.

INDUSTRY APPLICATIONS AND STRATEGIC OPPORTUNITIES

LIFE SCIENCES AND HEALTHCARE: HIGH-STAKES INNOVATION

The life sciences sector presents exceptional opportunities for AI intellectual property development due to the high-value applications, substantial development investments, and regulatory requirements that create natural protection barriers. AI innovations in healthcare often involve life-critical applications where performance advantages translate directly into improved patient outcomes and substantial commercial value.

Drug discovery applications represent the frontier of AI patent protection in healthcare. Machine learning algorithms may identify promising drug compounds, predict molecular interactions, or optimize clinical trial designs that solve specific technical problems while creating substantial commercial value. Patent protection for these innovations, which were achieved through significant human contribution, may provide market exclusivity during the lengthy drug development process, potentially generating billions in licensing revenue.

Diagnostic imaging applications create additional patent opportunities through technical innovations that improve accuracy, reduce processing time, or enable new diagnostic capabilities. AI systems that enhance medical image resolution, detect subtle pathological indicators, or integrate multiple imaging modalities solve concrete technical problems while improving patient care.

Clinical decision support systems present complex IP protection challenges that require coordinated patent, trade secret, and regulatory strategies. The algorithms that process patient data to generate treatment recommendations, the knowledge bases that encode medical expertise, and the interfaces that present information to healthcare providers each require different protection approaches.

Regulatory compliance and validation present unique opportunities for AI IP protection in healthcare. The methodologies used to demonstrate AI system safety and efficacy, approaches for maintaining regulatory compliance as systems evolve, and frameworks for validating AI performance in clinical settings represent valuable intellectual property that facilitates market entry and competitive positioning.

MANUFACTURING AND INDUSTRIAL APPLICATIONS: OPERATIONAL EXCELLENCE

Manufacturing applications create substantial AI IP opportunities through systems that optimize operations, improve quality, and reduce costs. The tangible nature of manufacturing improvements makes patent protection particularly valuable, while the operational knowledge embedded in AI systems creates significant trade secret opportunities.

Predictive maintenance systems may represent high-value patent opportunities through innovations that prevent equipment failures, optimize maintenance scheduling, and extend asset lifecycles. AI algorithms that analyze sensor data to predict failures, optimize maintenance interventions, and balance maintenance costs against downtime risks solve concrete technical problems while generating measurable cost savings.

Quality control and defect detection systems may create additional patent opportunities through computer vision applications that identify product defects, classify quality issues, and optimize production processes. The technical innovations that enable accurate defect detection, robust performance under varying conditions, and integration with existing manufacturing systems may provide strong foundations for patent protection.

Supply chain optimization applications present complex IP challenges that span multiple protection mechanisms. The algorithms that optimize inventory levels, predict demand fluctuations, and coordinate multi-tier supply networks may warrant patent protection, while the data sources, supplier relationships, and operational knowledge that enable superior performance require trade secret protection.

Safety monitoring and incident prediction systems create critical IP assets through innovations that prevent accidents, ensure regulatory compliance, and protect human safety. AI systems that monitor workplace conditions, predict safety incidents, and optimize safety protocols solve important technical problems while creating substantial liability reduction value.

AI AS IP IN INDUSTRY BROADLY

Numerous other industries are evolving due to AI technologies. Transportation was one of the first sectors to begin this evolution through AI innovations like autonomous vehicles, traffic and fleet management and optimization, and predictive logistics. In agriculture, AI systems can provide more precise farming and crop optimization, better pest and disease detection, and help build more sustainable, environmentally friendly techniques. AI systems in the energy and utility sector provide more intelligent infrastructure, optimizing the energy grid usage, dynamic load balancing, and forecasting. The broad applicability of AI across numerous industries and types of IP creates a robust environment for the valuation and monetization of AI as IP, as described below.

VALUATION AND MONETIZATION STRATEGIES

UNDERSTANDING AI ASSET VALUATION IN M&A CONTEXTS

The rapidly evolving AI marketplace creates unique valuation challenges and opportunities that require sophisticated analytical approaches. As described above, the share of total venture capital flowing to AI companies is significant. Recent market data also reveals that AI companies command substantial premiums over traditional software companies, with a median EV/Revenue multiple of 29.7x for AI companies, compared to 3.0x for traditional software companies. This premium reflects both the growth potential of AI technologies and the scarcity of proven AI assets in the marketplace. AI M&A transactions demonstrate consistent premium valuations for companies with strong intellectual property portfolios, with strategic acquirers paying premiums for companies with defensible AI IP positions. These premiums reflect acquirers' recognition that protected AI IP assets provide sustainable competitive advantages and reduced integration risks. Companies with patent-protected AI innovations can demonstrate more predictable revenue streams, while trade secret protection provides cost advantages and competitive moats that support premium valuations.

LICENSING REVENUE GENERATION AND MARKET DEVELOPMENT

AI licensing presents substantial revenue opportunities. The modular nature of AI components (data, compute, and algorithms) enables flexible licensing arrangements that can generate significant revenue streams while accelerating market adoption and technology dissemination.

Content licensing represents a significant opportunity in the AI licensing market. Although this market is still in development, the key building blocks, e.g., willing buyers and sellers, pricing mechanisms, market intermediaries, and executed transactions, are already in place. According to ResearchandMarkets.com, the market for AI training data sets is expected to grow at a CAGR of 27.7% from $2.82 billion in 2024 to $9.58 billion in 2029. Individual deals between major publishers/content creators and AI companies have reached upwards of $250 million. Despite the current legal uncertainty surrounding fair use, which has significantly depressed these license payments and created headwinds for licensors, these arrangements demonstrate the substantial value of high-quality training data. This substantial value is also exhibited by the many intermediaries and technology platforms that have entered the market to facilitate such licensing arrangements, including Personal Digital Spaces (PDS), Tollbit, Human Native, and the Copyright Clearance Center (CCC), among many others. These intermediaries and technology platforms enable content creators to catalog, track, license, and/or monetize their content.

Figure 1 illustrates the growth of the AI content licensing market. Specifically, the data reflects license agreements between AI platforms and various publishers or content creators for textual works.

Figure 1: AI Content Licensing Deals for Textual Works By Quarter (See Appendix 1)

In addition to content, technology licensing opportunities extend across multiple other AI component categories. The broad applicability of AI as IP in many different industries can allow companies to monetize core innovations while maintaining competitive advantages in their specific industry. Cross-licensing arrangements will likely become increasingly important as AI patent portfolios mature and potential infringement risks increase. Companies with strong AI patent positions can leverage those assets to gain access to complementary technologies while avoiding costly litigation and enabling faster innovation cycles.

STRATEGIC PARTNERSHIPS AND JOINT DEVELOPMENT ARRANGEMENTS

AI intellectual property creates unique opportunities for strategic partnerships that combine complementary capabilities while sharing development costs and market risks. The interdisciplinary nature of AI development and the substantial investments required for successful commercialization make partnership arrangements increasingly attractive for companies seeking to accelerate AI innovation.

Technology development partnerships enable companies to combine AI expertise with domain knowledge, creating innovations that neither partner could develop independently. These arrangements require careful IP allocation agreements that protect each partner's contributions while enabling shared ownership of jointly developed innovations.

Data-sharing partnerships present complex IP challenges that require sophisticated legal frameworks. Privacy regulations and competitive concerns often limit data-sharing arrangements. Successful partnerships develop frameworks that enable data utilization without compromising competitive positions or regulatory compliance.

Commercialization partnerships create opportunities for AI companies to leverage established market channels while enabling traditional companies to incorporate AI capabilities without developing internal expertise. These arrangements require clear IP licensing terms that protect AI innovations while providing partners with adequate rights to commercialize jointly developed products.

Research collaborations with academic institutions provide access to cutting-edge research while creating complex IP ownership issues. Successful arrangements establish clear frameworks for IP ownership, publication rights, and commercialization opportunities that enable continued research while protecting commercial interests.

IMPLEMENTATION FRAMEWORK FOR LEGAL PRACTITIONERS

DEVELOPING AI IP EXPERTISE AND SERVICE OFFERINGS

The emergence of AI as intellectual property creates substantial opportunities for legal practitioners willing to develop specialized expertise in this rapidly evolving field. The complexity of AI technologies and the multifaceted nature of IP protection requirements create natural barriers to entry that enable practitioners with appropriate expertise to command premium fees while building sustainable competitive advantages.

Technical competency requirements for AI IP practice extend beyond traditional IP law knowledge to include an understanding of machine learning concepts, data science methodologies, and AI system architectures. Practitioners need not become technical experts but must develop sufficient understanding to communicate effectively with AI developers, assess the patentability of AI innovations, and draft protection strategies that address the unique characteristics of AI technologies.

Industry specialization creates additional opportunities for practitioners to develop niche expertise that commands premium rates. AI applications in healthcare, manufacturing, transportation, and other regulated industries require specialized knowledge of industry regulations, market dynamics, and commercial requirements that enable more effective IP strategies.

Client development strategies for AI IP practice should focus on proactive engagement with companies developing AI capabilities rather than reactive responses to traditional IP needs. The rapid pace of AI development and the novelty of AI IP issues create opportunities for practitioners to establish relationships early in the innovation process, enabling more comprehensive and effective IP protection strategies.

SERVICE INTEGRATION AND PARTNERSHIP OPPORTUNITIES

The multidisciplinary nature of AI IP protection creates opportunities for law firms to develop integrated service offerings that address technical, legal, and business aspects of AI innovation. Successful AI IP practices combine traditional legal expertise with technical analysis, business strategy, and market intelligence capabilities.

Technical partnership arrangements enable law firms to access specialized AI expertise without developing internal capabilities. Collaborations with AI consultants, technical experts, and industry specialists can provide the technical competency needed for effective AI IP practice while maintaining focus on legal service delivery.

Business development partnerships with accounting firms, management consultants, and investment banks create opportunities for integrated service offerings that comprehensively address AI development, IP protection, and commercialization needs. These partnerships enable law firms to participate in broader AI development initiatives while providing specialized IP expertise.

International collaboration becomes particularly important for AI IP practice given the global nature of AI development and the need for coordinated protection strategies across multiple jurisdictions. Law firms that develop international partnership networks for AI IP protection can provide comprehensive services while accessing global markets.

RISK MANAGEMENT AND PROFESSIONAL DEVELOPMENT

An AI IP practice presents unique professional risks that require careful management and specialized expertise. The novelty of AI technologies and the rapid pace of development create potential liability exposures that practitioners must understand and address through appropriate risk management strategies.

Professional liability considerations for AI IP practice include potential exposure for inadequate protection strategies, missed patent opportunities, and failure to identify trade secret misappropriation risks. Practitioners must develop appropriate expertise and quality control procedures to minimize these risks while providing effective representation.

Continuing education requirements for AI IP practice exceed traditional IP law professional development needs. The rapid evolution of AI technologies and the emerging legal frameworks requires ongoing investment in technical education, legal development, and market knowledge that enables effective practice.

Quality control procedures for AI IP practice should include technical review processes, specialized documentation requirements, and enhanced due diligence procedures that address the unique characteristics of AI innovations. These procedures help ensure effective representation while minimizing professional liability risks.

REGULATORY AND COMPLIANCE CONSIDERATIONS

EMERGING REGULATORY FRAMEWORKS AND COMPLIANCE REQUIREMENTS

The regulatory landscape for AI is evolving rapidly, with 59 AI-related regulations introduced by US federal agencies in 2024, representing a doubling from the previous year. This regulatory acceleration creates both compliance challenges and IP protection opportunities that require coordinated legal strategies.

The European Union's AI Act represents the most comprehensive AI regulatory framework currently in force. The law establishes risk-based classifications for AI systems and imposes substantial compliance requirements for high-risk applications. These regulations create both barriers to market entry and opportunities for companies with compliant AI systems to gain competitive advantages through IP protection.

Sectoral regulations in healthcare, financial services, automotive, and other industries create additional compliance requirements that impact AI IP strategies. The intersection of AI innovation with existing regulatory frameworks often creates opportunities for patent protection through technical solutions that address regulatory requirements while improving system performance.

Data protection regulations, including General Data Protection Regulation ("GDPR"), California Privacy Protection Act ("CCPA"), and emerging privacy frameworks, significantly impact AI IP strategies through restrictions on training data use, requirements for algorithmic transparency, and limitations on automated decision-making. These regulatory constraints create opportunities for companies that develop privacy-preserving AI technologies while imposing additional complexity on IP protection strategies.

International regulatory coordination remains limited, creating opportunities for companies that develop AI systems capable of meeting multiple regulatory requirements while establishing barriers to entry for competitors lacking such capabilities. IP protection for regulatory compliance technologies becomes increasingly valuable as regulatory requirements proliferate and compliance costs increase.

ETHICAL AI AND RESPONSIBLE INNOVATION

The growing emphasis on ethical AI and responsible innovation creates new categories of IP protection opportunities while imposing additional requirements on AI development and deployment. Companies that develop technical solutions to ethical AI challenges can gain competitive advantages while building sustainable IP portfolios.

Bias detection and mitigation technologies present significant IP opportunities through innovations that identify and correct discriminatory outcomes in AI systems. The technical challenges of measuring bias, developing correction algorithms, and maintaining system performance while ensuring fairness create substantial opportunities for IP protection.

Explainability and interpretability technologies create additional IP opportunities through innovations that make AI decision-making processes transparent and understandable. The technical challenges of developing interpretable AI systems without sacrificing performance create IP opportunities while addressing regulatory requirements and market demands.

Privacy-preserving AI technologies may represent high-value patent opportunities through innovations that enable AI development while protecting individual privacy. Techniques such as differential privacy, federated learning, and homomorphic encryption solve technical challenges while addressing regulatory requirements and competitive concerns.

Robustness and security technologies create critical IP assets through innovations that protect AI systems against adversarial attacks, ensure reliable performance under varying conditions, and maintain system integrity. The increasing deployment of AI systems in critical applications creates substantial market demand for these technologies while providing strong foundations for IP protection.

FUTURE OUTLOOK AND STRATEGIC IMPLICATIONS

MARKET EVOLUTION AND COMPETITIVE DYNAMICS

The AI intellectual property landscape will continue evolving rapidly as the technology matures and market structures develop. Early indicators suggest increasing consolidation around platform providers while creating opportunities for specialized applications and integration technologies.

Patent landscape development indicates accelerating filing activity in AI-related technologies, with potential for significant patent thickets in core AI technologies. This evolution creates both opportunities and risks for companies developing AI innovations, requiring sophisticated patent strategies that balance protection needs with freedom to operate considerations.

Trade secret protection will likely become increasingly important as AI technologies mature, and competitive advantages shift from core algorithms to implementation expertise, operational knowledge, and data assets. Companies that develop comprehensive trade secret protection programs will be better positioned to maintain competitive advantages as AI technologies become more widely available.

Licensing market development suggests increasing standardization of AI licensing arrangements and the emergence of patent pools for core AI technologies. These developments will create opportunities for more efficient technology access while requiring strategic decisions about participation in collaborative arrangements versus independent development.

LEGAL PRACTICE EVOLUTION AND OPPORTUNITY ASSESSMENT

The legal profession's response to AI intellectual property challenges will determine both the development of effective protection frameworks and the distribution of economic opportunities created by AI innovation. Early indicators suggest significant advantages for practitioners who develop specialized expertise, while traditional IP practices may face commoditization pressures.

Practice area development opportunities extend beyond traditional IP law to include AI governance, regulatory compliance, technology transactions, and strategic planning services. Law firms that develop comprehensive AI legal capabilities will be better positioned to serve clients' evolving needs while capturing premium fee opportunities.

Client relationship evolution suggests increasing integration of legal services with business strategy and technology development activities. AI IP practice requires closer collaboration with technical teams and business leaders than traditional IP practice, creating opportunities for deeper client relationships while requiring enhanced technical competency.

Competitive positioning will increasingly depend on technical expertise, industry specialization, and integrated service capabilities rather than traditional legal credentials alone. Practitioners who develop appropriate expertise and service offerings will benefit from favorable supply-demand dynamics, while others may face displacement by more specialized competitors.

CONCLUSION

The emergence of artificial intelligence as intellectual property represents a significant market opportunity for both innovative organizations and the legal profession. Companies that implement strategic AI IP management can realize substantial competitive advantages, premium valuations, and new revenue streams through licensing and technology transfer. Conversely, organizations that fail to protect their AI innovations face significant risks, including competitive disadvantage, reduced valuations, and missed monetization opportunities.

The legal profession stands at a critical juncture in responding to these emerging needs. The complexity of AI technologies, the multi-faceted nature of protection requirements, and the rapid pace of market development create natural opportunities for practitioners who develop appropriate expertise while posing threats to those who fail to adapt to evolving client needs.

The framework presented in this article provides a foundation for both AI innovators and legal practitioners to navigate this rapidly evolving landscape. By recognizing AI innovations as intellectual property, implementing comprehensive protection strategies, and developing appropriate expertise, organizations can capture the substantial opportunities created by the AI revolution while mitigating associated risks.

The stakes are substantial, and the window for establishing leadership positions is limited. Organizations and practitioners who act decisively to develop AI IP capabilities will be well-positioned to benefit from this new technology, while those who delay may find themselves at permanent competitive disadvantages in an AI-driven economy.

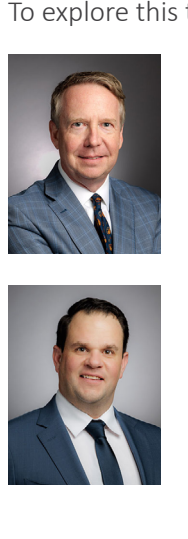
Future research should focus on developing more sophisticated valuation methodologies for AI assets, creating standardized licensing frameworks for AI technologies, and establishing best practices for AI IP portfolio management. As the market matures and regulatory frameworks develop, these areas will become increasingly important for effective AI IP practice.

The AI intellectual property revolution has begun. The question is not whether AI will change how we create, protect, and monetize intellectual property, but whether organizations and practitioners will position themselves to lead or follow in this changing environment.
#AIasIP

APPENDIX 1

Licensee	Content Owner	Announcement Date Owner
Amazon	The Associated Press	2/25/2025
Amazon	Business Insider	2/25/2025
Amazon	Condé Nast	2/25/2025
Amazon	Forbes	2/25/2025
Amazon	Hearst	2/25/2025
Amazon	Politico	2/25/2025
Amazon	Reuters	2/25/2025
Amazon	Time	2/25/2025
Amazon	USA Today	2/25/2025
Amazon	The Washington Post	2/25/2025
Amazon	Vox	2/25/2025
Dow Jones	The Associated Press	11/14/2024
Dow Jones	The Wall Street Journal	11/14/2024
Dow Jones	The Washington Post	11/14/2024
Google	Reddit	2/22/2024
LexisNexis	The Associated Press	7/18/2024
Meta	Reuters	10/25/2024
Microsoft	Axel Springer	4/29/2024
Microsoft	Financial Times	10/1/2024
Microsoft	HarperCollins	11/20/2024
Microsoft	Hearst	10/1/2024
Microsoft	Reuters	10/1/2024
Microsoft	USA Today	10/1/2024
Mistral	Agence-France-Press	1/6/2025
OpenAI	American Journalism Project	7/18/2023
OpenAI	The Associated Press	7/13/2023
OpenAI	The Atlantic	5/29/2024
OpenAI	Axel Springer	12/13/2023
OpenAI	Axios	1/15/2025
OpenAI	Condé Nast	8/19/2024
OpenAI	Dotdash Meredith	5/7/2024
OpenAI	Financial Times	4/29/2024
OpenAI	GEDI	9/26/2024
OpenAI	Guardian Media Group	2/14/2025
OpenAI	Hearst	10/8/2024
OpenAI	Le Monde	3/13/2024
OpenAI	News Corp	5/22/2024
OpenAI	Prisa Media	3/13/2024
OpenAI	Schibsted Media Group	2/10/2025
OpenAI	TIME	6/27/2024
OpenAI	Vox Media	5/29/2024
Perplexity	Adweek	12/5/2024
Perplexity	The Independent	12/5/2024
Perplexity	The Los Angeles Times	12/5/2024
Perplexity	Mexico Daily News	12/5/2024
Perplexity	Blavity	12/5/2024
Perplexity	NewsPicks	12/5/2024
Perplexity	Minkabu the Infonoid	12/5/2024
Perplexity	Gear Patrol	12/5/2024
Perplexity	MediaLab	12/5/2024
Perplexity	DPReview	12/5/2024
Perplexity	World History Encyclopedia	12/5/2024
Perplexity	NTV	12/5/2024
Perplexity	Stern	12/5/2024
Potato	Wiley	10/17/2024
ProRata.ai	Adweek	12/9/2024
ProRata.ai	The Atlantic	8/7/2024
ProRata.ai	Atlas Obscura	12/9/2024
ProRata.ai	Arena Group	12/9/2024
ProRata.ai	Axel Springer	8/7/2024
ProRata.ai	Buzzfeed	12/9/2024
ProRata.ai	DMG Media Group	11/20/2024
ProRata.ai	Financial Times	8/7/2024
ProRata.ai	Fortune	8/7/2024
ProRata.ai	Guardian Media Group	11/20/2024
ProRata.ai	Hello!	11/20/2024
ProRata.ai	Mediahuis	11/20/2024
ProRata.ai	Mumsnet	11/20/2024
ProRata.ai	News/Media Alliance	3/26/2025
ProRata.ai	Prospect	11/20/2024
ProRata.ai	Reach PLC	11/20/2024
ProRata.ai	Sky Media Group	11/20/2024
Confidential	Taylor & Francis	7/9/2024
Confidential	Wiley	N/A
Confidential	Wiley	N/A
Confidential	Wiley	N/A
Confidential	Wiley	N/A

To explore this topic further, please contact:



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AI AS IP™: A FRAMEWORK FOR BOARDS, EXECUTIVES, AND INVESTORS

By James E. Malackowski, Eric Carnick, and David Ngo

This article is the second installment in our three-part series, Artificial Intelligence as Intellectual Property or "AI as IP™", which explores how artificial intelligence assets should be treated as a form of intellectual property and enterprise capital. The first article, "A Strategic Framework for the Legal Profession", explored the legal foundations for recognizing and protecting AI assets. The upcoming third article, "Guide for SMEs to Classify, Protect, and Monetize AI Assets", will provide practical steps for small and mid-sized enterprises to turn AI into measurable economic value.

THE TEN BILLION DOLLAR RECOGNITION GAP

Imagine a prominent artificial intelligence ("AI") company that announces its Series C funding round at a $10 billion valuation is a moment investors celebrate as another success story in the AI economy. However, its balance sheet reveals a discrepancy few investors consider: the AI company reports only $500 million in tangible assets, perhaps mostly representing cash and data servers. If due diligence was done correctly, then where is the other $9.5 billion in value?

The answer exposes a fundamental disconnect in corporate accounting: the AI company's most valuable resources—its language models, training datasets, and algorithms—generate most of its revenues yet remain "off the books," or uncapitalized under current accounting standards. The entire valuation rested upon investors' confidence in AI assets that accounting rules treated as nonexistent.

This story illustrates a real and widespread issue in finance. As AI's importance continues to grow in the global knowledge-based economy, financial statements are becoming less representative of a company's true worth. This perpetuates a class of "invisible capital" that distorts how boards, auditors, and investors assess the performance of a company's assets; in other words, the lack of transparency and accurate valuations creates what could be a recognition gap in the billions of dollars, if not trillions.

The scale of this disconnect is staggering—global AI investment is projected to grow to $3.49 trillion by 2033, representing a 31.5% compound annual growth rate ("CAGR"). 1 Venture capital has invested heavily in AI in recent years, with more than one-third of all funding in 2024 flowing into AI start-up companies.2 Public markets have assigned AI firms up to four times the valuation premium over non-AI software peers, reflecting investor confidence in AI-driven intangibles over the types of assets that previously dominated investments in the early part of the 21st century.

The current application of Generally Accepted Accounting Principles ("GAAP") and International Financial Reporting Standards ("IFRS") often leaves AI assets unrecognized, even if they are responsible for such high valuations. For example, internal expenditures on AI development under current standards are treated as research and development ("R&D") expenses rather than capital investments.3 Only acquired intangibles purchased in M&A transactions appear on balance sheets. This creates a perverse asymmetry in which firms that build some of the best AI systems record the smallest asset bases.

This accounting treatment produces three distortions that ripple through the entire economy. First, by expensing multi-year AI investments immediately, companies depress their reported earnings even when those outlays generate long-term returns. This understates the true profitability of the company's investments. Second, investors are less able to distinguish between firms whose R&D creates durable assets from those burning cash on experiments that have yet to demonstrate a form of utility or value. Third, executives focused on reported margins may under-invest in the innovations that provide the most substantial value at a time when AI capabilities determine competitive survival.

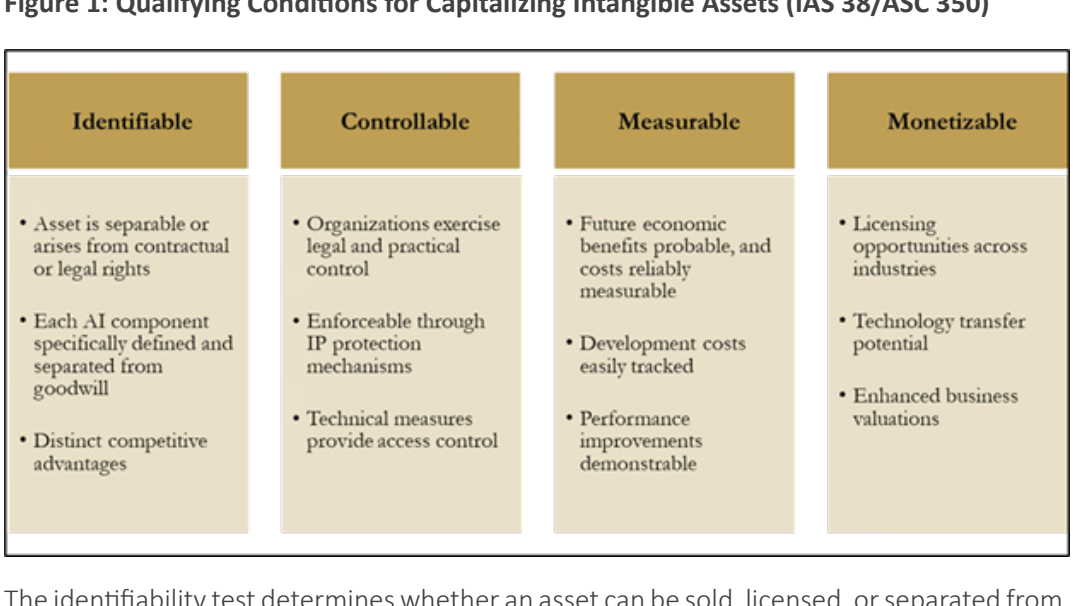
The solution to these issues already exists within established, though often underutilized, accounting standards. International Accounting Standard (IAS) 38 defines an intangible asset with four tests: identifiability, control, measurability, and future economic benefit.4 As will be discussed further in this article, Modern AI systems clearly meet all four of these criteria, and the rules permit such recognition, but standard corporate practices have yet to follow suit.

WHY AI SYSTEMS CAN QUALIFY AS CAPITAL ASSETS

The transformation of AI from experimental technology to core business infrastructure demands a corresponding shift in its financial recognition as well. A new data center is universally considered a Property, Plant, and Equipment ("PPE") asset that can face depreciation, impairment, and revaluation.5 In contrast, an AI model that generates millions in recurring revenue may be classified by an accountant as an expense.6 This is a distinction inherited from mid-20th-century accounting principles, yet AI systems are not consumables; they are productive capital capable of generating benefits long after the initial cash outlay.

Current accounting standards, specifically IAS 38 (along with the Accounting Standards Codification (ASC) 350), consider four qualifying conditions for capitalizing intangibles: identifiability, control, measurability, and future economic benefit.7 Each criterion can be applied directly to the core components of AI systems.

Figure 1: Qualifying Conditions for Capitalizing Intangible Assets (IAS 38/ASC 350)



The identifiability test determines whether an asset can be sold, licensed, or separated from its associated goodwill. AI assets, such as datasets, model architectures, and applications, can become transferable assets—and companies have been licensing their proprietary data or models in recent years. There is strong market evidence of identifiability with AI assets. High-profile data deals such as those between Dow Jones (the publisher of the Wall Street Journal) and OpenAI, and The New York Times and Amazon, among many other deals, provide confirmation that AI components can be separable economic assets.8 This type of AI asset is in high demand, and various marketplaces and intermediaries have arisen to prove it.

The control test assesses whether a company has the legal and technical capacity to determine who uses an asset. AI firms can control access to their assets through various mechanisms, including encryption protocols, API gating, trade secret protections, and employment or vendor agreements. Proprietary models and codebases stored privately and securely may satisfy a reasonable definition of controlled resources, and the technical controls over AI assets may be more robust than those typically applied to traditional IP assets.

The measurability test requires that an asset's costs or value can be reliably determined. The growing market for AI training data provides ample market comparables and is forecasted to grow at a CAGR of 27.7% from $2.82 billion in 2024 to $9.58 billion in 2029.9 AI R&D costs can also be carefully tracked for software development, data acquisition, computation, and storage costs.10 Cost accounting for AI can achieve or exceed the levels of granularity seen in traditional software development, with platforms automatically tracking energy consumption, data processing, and model iterations.

The future economic benefit test considers whether an asset will generate future revenue, reduce cost savings, or confer competitive advantages. AI assets demonstrably achieve these outcomes. For example, predictive maintenance models can reduce equipment downtime and thereby provide cost savings;11 language models can be monetized with subscription services to generate direct revenue streams; 12 recommendation engines can increase advertisement conversion rates and provide measurable cash-flow benefits. The economic benefits are observable, attributable, and financially material.

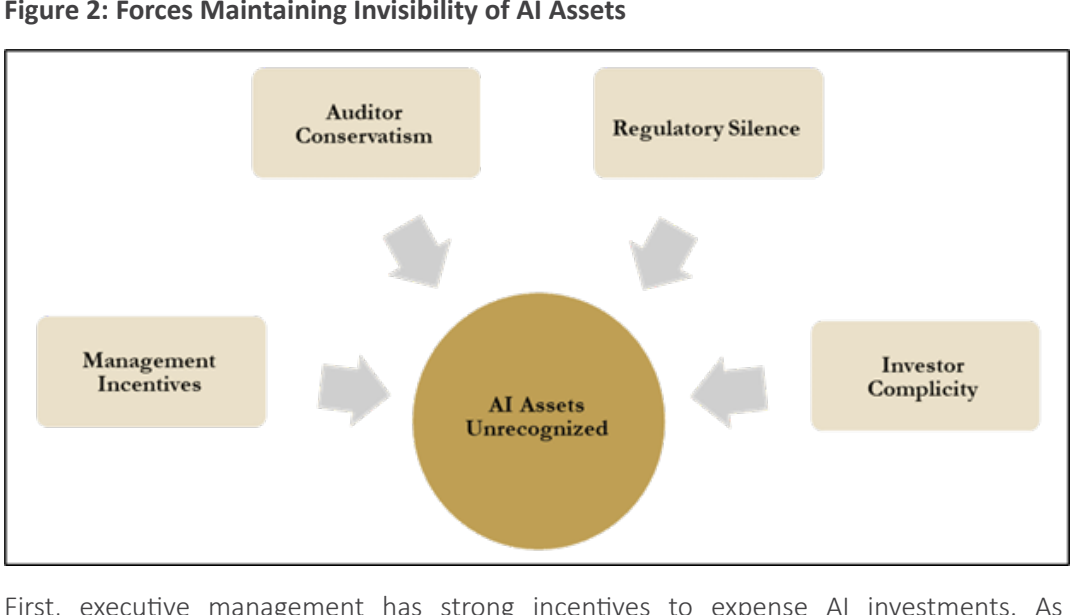
Under these conditions, core components of an AI system can be classified as a distinct, qualifiable asset class. Training data is a foundational asset class that meets each recognition test; it can be licensable, controllable, measurable, and yield clear economic benefits, as proven by large media licensing deals to leading AI companies. Trained models may represent codified intellectual capital—encapsulating years of engineering effort and learning—and can be stored, transferred, and monetized in a similar way that patented software or copyrighted code has been considered in the last several decades. Furthermore, deployed AI applications are revenue engines that are functionally indistinguishable from other capitalized software.

Despite remaining largely absent from financial statements, the AI model economy is beginning to mirror the software-as-a-service revolution, and usage-based pricing reveals a level of economic value embedded in the underlying assets.

THE FORCES MAINTAINING INVISIBILITY

Understanding why AI assets remain unrecognized requires an examination of the institutional dynamics. There are four forces that keep AI assets largely unrecognized: management incentives, auditor conservatism, regulatory silence, and investor complicity.

Figure 2: Forces Maintaining Invisibility of AI Assets



First, executive management has strong incentives to expense AI investments. As mentioned previously, tax codes allow for immediate R&D deductions, unlike multi-year amortization for capitalized assets.13 This provides a significant short-term cash flow boost for companies, allowing managers to claim innovation without a future asset value reset. Capitalization, in contrast, demands accountability for an asset's performance over an extended period. Depreciating assets forces executives to explain whether AI assets are productive and expose inefficient investments.

Auditors face a level of asymmetric risk that biases towards conservatism.14 Overstating assets may more often lead to legal and regulatory troubles, though understating assets is also a compliance risk that can come with its own regulatory penalties and investor lawsuits.15 Given the recent rise and relative novelty of AI, auditors may still default to the safer option of expensing it.16 This perspective is further reinforced by past financial crises involving overvaluations of intangible assets.

While the FASB and IASB have begun to review the issue, they have yet to issue guidance on accounting for AI assets. Likewise, the Securities and Exchange Commission has focused its attention elsewhere and has yet to issue new regulations that specifically address the use of AI.17 This absence of direction creates a compliance vacuum in the United States. Without explicit guidance, companies may decide to report their assets in ways that follow the path of least resistance—promising AI developments and remaining ambiguous about their true value to investors, while valuations continue to climb.

Investor behavior completes this circle of invisibility. Analysts may focus on shaping narratives about revenue growth over investigating the true productivity of a company's assets. And rather than analyzing underlying assets, venture capitalists may justify the valuations of AI companies with these revenue projections and multiples. Investors continue to reward announcements of AI initiatives rather than wait for validated asset strength or intellectual property ("IP") defensibility.[18]

This dynamic between business, auditor, regulations, and investors creates a mutually beneficial but temporary situation for all stakeholders. Managers avoid scrutiny, reduce taxable income, and preserve flexibility; auditors minimize potential liability; regulators avoid contentious standard-setting; and investors ride the wave of momentum. However, this equilibrium conceals a growing level of systemic risk that conceals the weak fundamentals of a company. When market corrections or new regulations force transparency, companies built on narrative alone will face a sharp revaluation, a repeat of what has been seen in similar boom-bust cycles (e.g., the dot-com era of the late 1990s and early 2000s).

ESTABLISHING A VALUATION DISCIPLINE

The transition from a narrative-driven to asset-based valuation of AI requires a methodological level of discipline, which can be adapted from established intangible asset practices. Bridging the gap between AI signaling and asset quality requires practical frameworks to identify, measure, and compare AI capital with the same rigor that applies to brand equity, portfolio, or customer relationships.

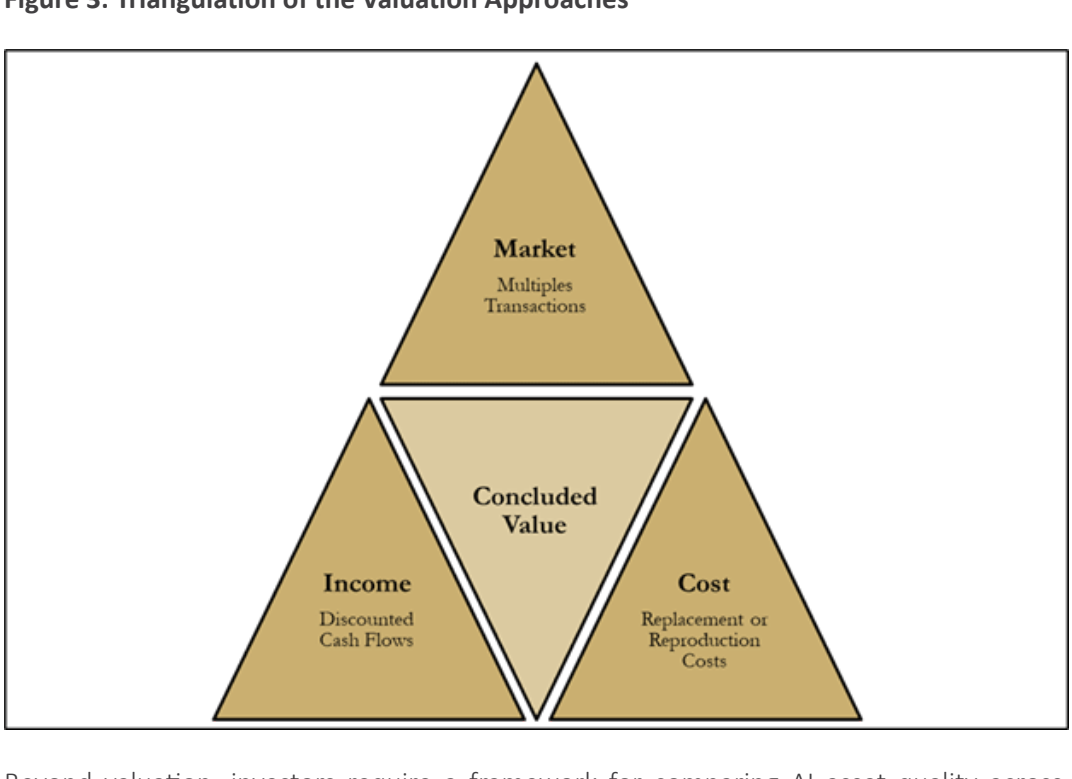
Three valuation approaches offer complementary perspectives for appropriately valuing assets. First, the cost approach provides a baseline value by summing development costs and adjusting for obsolescence and the remaining useful life of the asset. This method tends to provide conservative valuations; however, it does not account for strategic value, network effects, or competitive positioning. A pharmaceutical company spending $500 million to develop a machine learning or AI-driven drug-discovery platform may have an asset worth more than its historical cost if the system successfully reduces development timelines. However, cost-based valuation would only capture the input side of the financial equation.

Market-based valuation instead considers evidence from the likes of licensing deals, acquisitions, and partnerships. Recent content licensing deals provide comparables for training-data assets,19 albeit at potentially depressed rates, given widespread alleged infringement and AI platforms' claims of fair use. AI startup acquisitions reveal market multiples for their models and technology teams. This approach is limited by incomplete disclosure and low transaction volume for certain asset categories; it works best for standardized, liquid assets, such as labeled training datasets or specialized models that serve common use cases.

Third, the income approach considers the future cash flows that may be attributable to AI capabilities, then discounts appropriately for risk and time value. This method captures the economic potential of the asset but tends to rely on assumptions and attribution models. Quantifying the benefit attributable to an asset may be easier for some systems (e.g., predictive maintenance) compared to others (e.g., recommendation engines). The income approach excels at valuing more mature, deployed systems with proven performance records, but may struggle with early-stage or experimental AI where the level of cash flow remains uncertain.

The best practice involves triangulating all three valuation approaches, documenting the assumptions made, and applying sensitivity analysis to reconcile the discrepancies. A blended valuation can reveal both the tangible investment base and the intangible, strategic upside to the asset, thereby providing board-level visibility into where AI capital resides and how it contributes to enterprise value.

Figure 3: Triangulation of the Valuation Approaches



Beyond valuation, investors require a framework for comparing AI asset quality across companies. We propose an "AI Quality score" or AIQ™ metric that provides a standardized assessment tool evaluating three dimensions: asset value, asset protection, and asset management. Asset value can be considered in terms of data uniqueness, model performance, performance advantages, and market traction, as measured by API revenue or internal adoption. Asset protection might examine the strength of a company's IP portfolio, technical controls, and cybersecurity measures. Finally, asset management could evaluate effective governance, risk assessment processes, and insurance coverage. Similar to the concept of an AIQ, standardized due diligence frameworks could evaluate five key dimensions: data assets (examining existence, rights, and quality controls), model assets (consider proprietary development, scalability, and performance), IP (patent filings and trade-secret coverage), governance (level of board oversight and insurance coverage), and monetization (whether there exists revenue streams or a clear path to commercialization). In summary, a structured framework may be needed to transform qualitative AI discussions into investment-grade analysis.

The transition towards discipline-driven AI valuations serves multiple stakeholders. Investors could more reliably distinguish durable capital from marketing hype. Boards would have quantitative tools for strategic capital allocation, and there would be better signals for managers to determine which investments create defensive value. The key questions would then shift from "does a company use AI?" to "how strong are its AI assets?" This would parallel earlier transitions in brand valuation, patent portfolio analysis, and customer lifetime value modeling—which were initially dismissed as too subjective for rigorous analysis, but eventually standardized into mainstream practice.

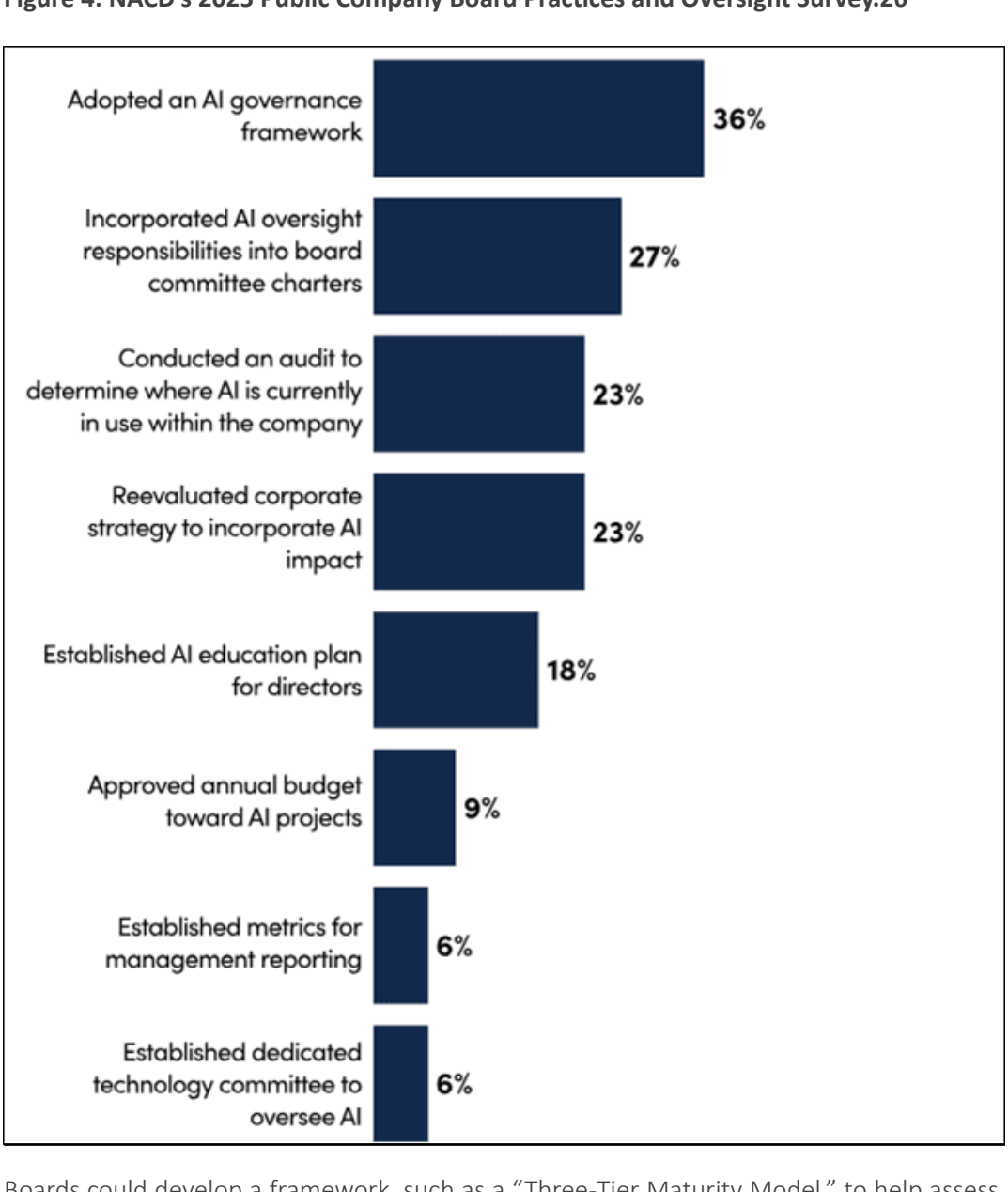
Board Governance as a Fiduciary Imperative

AI has crossed the threshold from an operational tool to strategic capital, which demands the same level of board-level governance applied to financial controls, cybersecurity, and environmental compliance. AI continues to drive corporate value and competitive advantages,20 and yet, few boards can reliably produce an inventory of their AI assets or explain how they are governed.

Directors have a duty of care to understand and oversee material corporate assets. When AI drives market capitalization, failing to govern it properly could be both a technical oversight and a failure in governance. There are three possible rationales that establish this as a board-level responsibility: asset stewardship (an obligation to safeguard and maximize share value), risk oversight (paying attention to risks in model theft, data breaches, regulatory violations, and decision errors), and strategic direction (making decisions on whether to build, buy, license, or co-develop AI systems with an informed understanding of asset positions and protection).

According to a 2025 survey conducted by the National Association of Corporate Directors ("NACD"), 62% of directors reportedly set aside time on their agendas for full-board discussions on AI, up from 28% in 2023.21 Nevertheless, current board practice still lags behind. Only 23% of directors have reevaluated corporate strategies to incorporate the impact of AI or conducted an audit to determine where AI is currently in use within their company.22 And only 6% report that their boards have established metrics for management reporting.23 Establishing appropriate metrics for AI investments is becoming more critical, with respondents identifying a lack of clear returns on investment as one of the barriers to AI adoption, implementation, or deployment.24 Many boards continue to receive anecdotal AI updates and lack the key metrics to fully understand its progress, which contrasts with the rapid adoption of ESG governance and regulations. 25

Figure 4: NACD's 2025 Public Company Board Practices and Oversight Survey.26



Boards could develop a framework, such as a "Three-Tier Maturity Model," to help assess their readiness. For example, Tier 1 firms (where AI is the core product) might require a dedicated AI committee and deep board expertise. A Tier 2 firm (where AI is critical to its operations) could develop a greater sense of oversight into existing committees with at least one AI-literate director. Tier 3 firms (in which AI supports but does not define the business) could address AI in standard risk or strategy reviews.

Effective board oversight can also follow a structured level of routine reporting—a quarterly AI dashboard, complete with AIQ scores, could help with digesting the technical complexity of AI assets into strategic intelligence. This dashboard could include three core sections. Asset inventory and valuation would track the number of systems and their estimated value. The risk and protection status would summarize the IP portfolio, insurance coverage, and incidents. Additionally, performance and ROI would document AI's contribution to revenue, margin, and productivity. Oversight of this dashboard and related governance activities should include a reporting relationship to the Chief Intellectual Property Officer ("CIPO") to ensure AI as IP™ is institutionalized as a core component of enterprise capital. Boards that move beyond compliance using strategic engagement are primed to gain an advantage over their competitors. Some competitive advantages can include capital efficiency, valuation premiums, and an increased measure of resilience against market conditions. AI governance is becoming the "new ESG"—a market-priced indicator of corporate sophistication.

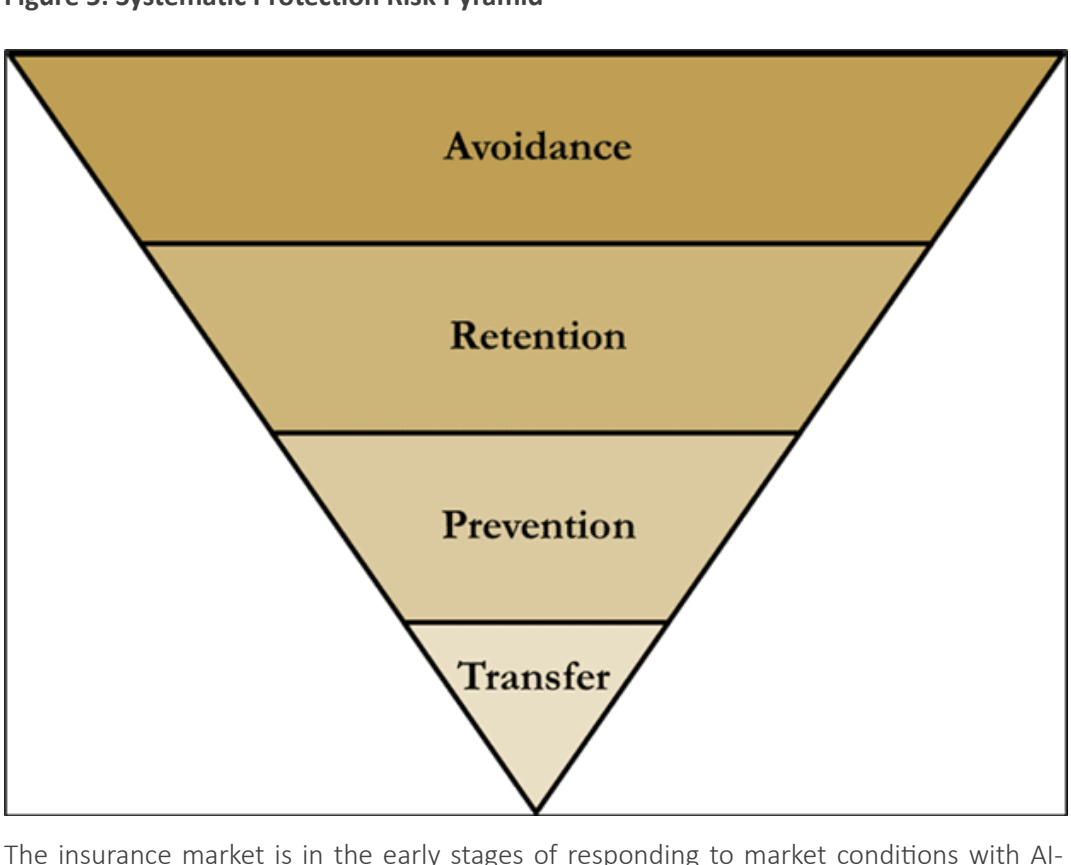
RISK MANAGEMENT AND CAPITAL PROTECTION

The world's top companies hold billions of dollars in unlisted data and model assets.27 When these systems fail, the economic impact can be analogous to a factory fire or product recall. A corrupted dataset or leaked algorithm can erase competitive advantages overnight. These represent asset-impairment events, yet few chief financial officers account for them as such.

Traditional risk frameworks were not designed for algorithmic capital. The challenge is extending enterprise risk management to the entire AI capital stack. Each asset layer has different exposures and risk profiles. For example, data assets can face loss or corruption; models run the risk of theft or bias; applications can experience systemic failures; and infrastructure can suffer extended outages. Quantifying exposure can help to translate technical risks into proactive actions by the CIPO and provide financial knowledge for boards. Asset-value-at-risk calculations can estimate potential losses, whereas loss-event severity analyses can support the assessment of remediation costs.28

Systematic protection can be represented with a four-layer risk pyramid: avoidance, retention, prevention, and transfer.29 Avoidance can involve discontinuing or outsourcing high-risk, low-return projects to prevent the accumulation of phantom assets. Retention can involve establishing internal reserves for model-drift remediation and retraining cycles—treating algorithmic asset depreciation as a managed cost of capital. A business can also implement preventative measures to mitigate risk, such as having secure-by-design architecture, bias-testing protocols, and board-mandated model validation reviews. Finally, businesses can transfer or shift residual risk through contracts and specialized AI insurance.

Figure 5: Systematic Protection Risk Pyramid



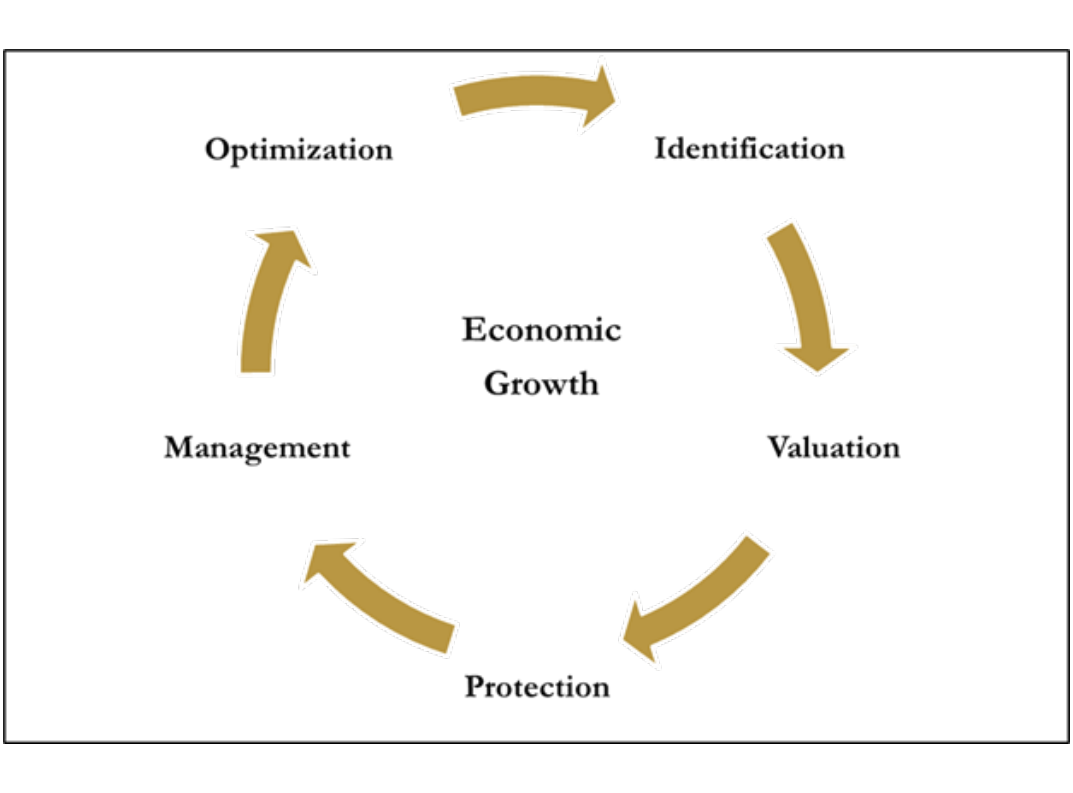
The insurance market is in the early stages of responding to market conditions with AI-specific risk products. Recent launches from the carriers Munich Re and Lloyd's cover model malfunction, data integrity, and other forms of financial losses from AI. 30 The insurance market may still be in the "observatory" stage of assessing the rise of new risks related to the development and use of AI solutions, but early adoption can signal credibility to investors. 31 Having a key underwriting requirement (such as, for example, an auditable AI asset inventory) can provide a powerful incentive for governance.

Effective risk mitigation for AI development will likely require cross-functional coordination across the entire senior executive team (e.g., CEO, CIO, CFO, CIPO, and General Counsel) to quantify exposure, implement security controls, and align contracts and IP protections. Quarterly reporting should be consolidated into a unified AI capital-at-risk statement for the board, following the same level of due diligence that is performed for liquidity or foreign exchange risk reports.

FIVE-PILLAR FRAMEWORK FOR SYSTEMATIC MANAGEMENT

Once organizations accept AI as a form of enterprise capital, the next practical question is how to implement disciplined management for algorithmic assets. We propose a structured lifecycle approach with five interdependent pillars.

Figure 6: Five-Pillar Framework for Systematic Management and Sustainable Economic Growth



The first pillar, **Identification**, establishes a comprehensive inventory of AI assets. Led by the company's CIPO, organizations can conduct a "census" of their data and models, tagging them with key metadata, classified by asset type, and then mapped to revenue streams to have a visible foundation for the overall assets. Many organizations tend to underestimate their AI footprint, 32 which makes inventorying essential for any further analyses.

The second pillar, **Valuation**, provides economic insight. The company CFO is critical to help organizations apply hybrid methods to estimate ongoing economic contributions, rather than relying solely on the historical costs of an asset. Key activities include attributing revenue or cost savings to specific AI systems and maintaining asset-specific ledgers. Such measures can provide supporting evidence to justify capital allocation decisions and valuation premiums in mergers and acquisitions (M&A) or fundraising rounds.

The third pillar, **Protection**, secures legal and technical defenses by employing a layered IP strategy that combines patents, trade secrets, copyrights, and contracts. Technical safeguards, such as encryption, can deter theft and align with regulations to ensure legal sustainability. Protection converts the internal knowledge within an organization into an enforceable property right.

The fourth pillar, **Management**, integrates governance and risk oversight. It would require assigning clear executive ownership for asset registry, AIQ metrics, and quarterly board reports (for example, with dashboards) to ensure visibility into the assets. Routine audits of model performance and security controls help to further maintain asset quality. Without a level of active management, AI assets may silently degrade and lose their value over time.

The final pillar, **Optimization**, ensures AI capital appreciates through active deployment. Activities can include pursuing licensing partnerships to generate incremental returns, identifying underperforming models for retraining or retirement, and applying performance analytics to maximize ROI. Mature organizations would treat their model portfolios like balanced, performance-monitored investment portfolios.

Together, these five pillars form a continuous loop for sustainable economic growth. Identification informs valuation; valuation guides protection; protection informs management; management generates data for optimization; and optimization surfaces new assets requiring identification. This lifecycle integration mirrors established practices for managing patent portfolios, brand assets, and customer relationships—which are often subject to systematic governance.

IMPLEMENTATION ROADMAP AND TIMELINE

Translating this conceptual framework into reality requires a structured timeline with measurable milestones. We propose a roadmap that defines deliverables during a three-year time horizon: 90 days, one year, and three years.

The first 90 days are about establishing visibility and control; as stated in the previous section, organizations should conduct a comprehensive inventory of their AI assets and develop basic AIQ metrics. A cross-functional AI governance team, led by the CIPO, may be established by the board to initiate preliminary loss and exposure estimation. The outcome: knowing what AI assets exist, who owns them, and where the risks are concentrated.

The first year focuses on institutionalizing governance and measurement. By this time, the CFO may produce the organization's first AI asset valuation report. Board oversight dashboards are implemented for quarterly reporting, and the legal team conducts an IP audit and files appropriate protections (e.g., patents, trade secret documentation, and updating license agreements). Risk officers secure insurance coverage specializing in AI-related liabilities, and strategy officers establish key performance indicators (KPIs) to track return on investment (ROI). The communications team may publish AI governance statements modeled on environmental, social & governance (ESG) reports to help signal transparency to investors and stakeholders. The CIPO formally engages in governance activities to align asset management with enterprise capital strategy. By the end of the year, AI governance within the organization shifts from ad hoc to structured accountability.

The three-year horizon is about delivering optimization and maturity. By this time, organizations score the quality of their AI assets on an annual basis, with information technology (IT) operations teams implementing lifecycle-management platforms to automate model maintenance. The CFO integrates AI reporting into financial filings through supplemental disclosures, and business development teams pursue additional monetization strategies. The Chief Information Officer ("CIO") works with insurers and auditors to provide continuous risk assurance. At this stage, enterprises should have transformed their AI assets from a speculative differentiator into a fully governed asset class with measurable returns on investment and subject to the same fiduciary discipline as physical property, financial instruments, or human capital.

THE COMING ERA OF MANDATORY DISCIPLINE

Corporate governance transformations often follow predictable patterns: markets reward pioneers, and then regulations compel universal adoption. AI is on a similar trajectory to ESG and cybersecurity, but on a compressed timeline reflecting technology's rapid economic penetration.33 AI is expected to boost global economic growth despite remaining invisible in financial statements.34 Investors, regulators, and insurers may find themselves converging on new AI capital disclosure expectations—one that is driven by regulatory developments, market pressure, and updated accounting standards.

There are already some early signs of policymakers moving towards codifying AI governance frameworks. For example, the EU's Artificial Intelligence Act may effectively mandate up-to-date inventories of developing or deployed AI systems,35 and U.S. federal agencies are beginning to introduce AI-related regulations.36 Asia-Pacific markets are also beginning to pilot AI accountability reports for listed companies.37 This will likely lead to global harmonization as multinationals will find a need to adopt the highest standards to meet compliance requirements.

Market pressures are also beginning to create incentives for transparency and disclosure. Investors are encouraged to consider AI governance statements as they conduct due diligence,38 and credit rating agencies may begin exploring governance scores where emerging AI development is considered a risk component to ratings. 39 In fact, insurance carriers may be moving towards the phase of providing AI-related coverage conditional on verified asset inventories.40

Accounting standard-setters, although they have yet to provide strict guidance on AI assets, have acknowledged the need for updates and are considering a broader overhaul of reporting for intangibles. 41 Anticipated revisions from the IASB and FASB may follow, clarifying rules for capitalizing internal assets. This evolution to accounting standards will legitimize AI asset valuation as a mainstream accounting discipline on par with goodwill impairment testing or deferred-tax accounting.

Organizations that act before mandates will be primed to gain durable strategic advantages—for example, valuation premiums will emerge from reduced investor uncertainty, and regulatory head starts will minimize future compliance costs. Early adopters of AI disclosure will command market trust and preference.

By the early 2030s, we expect that most, if not all, major corporations will report on their AI capital. Investors would expect footnotes showing AI asset value, amortization, and insurance coverage. Independent auditors will verify these figures as routine practice, and stock exchanges could even require certified AI asset statements.

CONCLUSION

The recognition gap between AI's economic reality and its accounting treatment is a fundamental misalignment between how value is created and how it is measured. As AI becomes the primary driver of value, this invisibility distorts capital allocation, obscures risk, and undermines governance.

The conceptual frameworks presented in this analysis—the four-part recognition test, five-pillar management system, a potential AI Quality score, and three-phase implementation roadmap—provide a practical path to bridge this gap. The technical standards, valuation methodologies, and governance models already exist. All that remains is the organizational will and leadership to act. AI should be treated as what it is: productive capital demanding disciplined stewardship.

Disclosure is the destiny of mature capital markets. Markets reward what they can see and discount what they cannot. Companies that treat AI as accountable capital will lead in both innovation and valuation credibility. The next frontier of corporate reporting is not just sustainability or cybersecurity, but also AI capital stewardship. The firms that master it today will define the governance practices of tomorrow.

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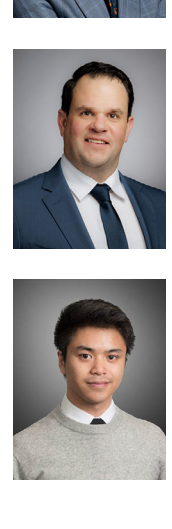

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INCREASING EXIT MULTIPLES: IP AND AI ASSET MANAGEMENT IN M&A TRANSACTIONS

By James E. Malackowski & Angelica Hofmann

THE ARTICLE WAS ORIGINALLY PUBLISHED IN THE M&A JOURNAL, VOL. 24 NO. 8

The protection and management of intellectual property (IP) assets and artificial intelligence (AI) resources during company sale processes have evolved from ancillary considerations to critical value drivers that can significantly influence EBITDA valuation multiples and overall transaction success. As we witness the completion of the market transition to an economy where intangible assets represent the dominant source of corporate value, the strategic management of IP and AI assets has become paramount in M&A transactions.

STRATEGIC IMPORTANCE OF IP AND AI ASSET MANAGEMENT

DUE DILIGENCE RISK MITIGATION

Comprehensive IP policies demonstrate operational maturity and reduce buyer risk perception. Companies with well-documented IP portfolios, clear ownership structures, and robust protection mechanisms typically command premium valuations because buyers can confidently assess what they are acquiring. Conversely, IP uncertainties can lead to significant valuation discounts or deal failures during due diligence.[1]

REVENUE SUSTAINABILITY ASSESSMENT

Buyers evaluate IP assets as key drivers of future cash flows. Strong patent portfolios, proprietary data, technology platforms, and defensible AI models provide competitive moats that support revenue sustainability.[2] Companies with valuable, well-protected IP assets often receive higher EBITDA multiples because their earnings are viewed as more predictable and defensible against competition.[3]

AI-SPECIFIC CONSIDERATIONS

DATA RIGHTS AND MODEL OWNERSHIP

AI companies must clearly establish ownership of training data, algorithms, and model weights.[4] Ambiguous data licensing or potential copyright infringements can create substantial liabilities that reduce valuation multiples. Companies with clean data provenance and properly licensed datasets command higher valuations.

REGULATORY COMPLIANCE FRAMEWORK

As AI regulation evolves, companies with proactive compliance policies and ethical AI frameworks position themselves as lower-risk investments. This includes data privacy compliance, algorithmic transparency measures, and responsible AI deployment practices.[5]

IMPACT ON EBITDA MULTIPLES

PREMIUM MULTIPLES FOR STRONG IP POSITIONS

Companies with robust IP portfolios and clear AI asset ownership typically receive EBITDA multiples higher than industry averages. For example, software companies achieved a median value of 15.2x EBITDA for the period 2015 through 1H 2025, while hardware manufacturers and distributors achieved a median value of 11.0x EBITDA during the same period. Technology companies with defensible IP moats often command multiples of 8-12x EBITDA compared to 5-9x for companies with weaker IP positions, such as healthcare and consumer staples.[6]

VALUATION DISCOUNTS FOR IP RISKS

Unresolved IP disputes, unclear ownership structures, or potential infringement issues can reduce EBITDA multiples. A risk discount can be applied when companies cannot demonstrate clear IP ownership or face litigation exposure. Buyers often apply significant risk discounts when IP assets cannot be clearly transferred or when litigation risks exist.[7]

AI-SPECIFIC VALUATION IMPACTS

Companies with proprietary AI models and clean data rights often receive premium valuations, with AI companies commanding median multiples exceeding 25.0x revenue in larger transactions.[8] Healthcare AI companies with proven solutions could see multiples rise to 6-8x revenue, above the sector average of 4.5-5x, reflecting buyers' willingness to pay premiums for innovation and future revenue potential.[9] Companies relying heavily on third-party AI services or with unclear data ownership face valuation penalties.

Private market valuations benefit significantly from strategic AI IP management. AI IP portfolios increase venture capital and private equity interest, with protected AI assets commanding higher valuation multiples than unprotected technologies.[10] Strategic acquirers consistently pay premiums of up to 20% for companies with strong AI IP positions, creating substantial exit optimization opportunities for stakeholders.[11]

Public market recognition extends these benefits to publicly traded companies through improved analyst coverage, where AI IP strategies enhance analyst understanding and coverage quality. Systematic AI governance supports Environmental, Social, and Governance reporting and sustainability metrics for ESG compliance, while transparent AI asset management reduces perceived technology risks and builds investor confidence in management capabilities.

THE NEW ECONOMIC REALITY

The transformation from a tangible asset economy to one dominated by intangible assets represents a fundamental shift in how businesses create and capture value. The transition from a tangible asset economy to one in which 90% of value is represented by intangible assets is largely complete, marking a permanent structural change that spans more than two decades of market evolution.[12]

This transformation has profound implications for M&A valuations. As of 2020, intangible assets, including IP, made up approximately 90% of the market value of the S&P 500, totaling over $21 trillion.[13]

MANAGEMENT BEST PRACTICES

PRE-SALE IP AUDIT

Companies should conduct comprehensive IP audits 12 to 18 months before anticipated sale processes. This includes cataloging all IP assets, resolving ownership disputes, and ensuring proper documentation of AI model development and data acquisition.[14] Organized AI IP portfolios accelerate M&A processes and maximize transaction values through due diligence readiness that demonstrates organizational sophistication to potential partners and acquirers.

POLICY DOCUMENTATION AND ENFORCEMENT

Well-documented IP policies covering employee inventions, contractor agreements, and AI development processes demonstrate systematic asset protection. Regular policy updates reflecting evolving AI regulations and industry standards show management sophistication.[15]

STRATEGIC IP PORTFOLIO DEVELOPMENT

Active patent filing strategies and trademark protection programs can significantly enhance valuation multiples. Protecting technology with patents is one of the most effective ways deep tech companies can boost their valuation.[16] Companies that treat IP as strategic assets rather than administrative necessities typically achieve superior exit valuations.

THE AI GOVERNANCE IMPERATIVE

As artificial intelligence becomes increasingly embedded in business operations, AI governance has emerged as a critical factor in M&A valuations. "AI governance practices, including adherence to ethical AI guidelines, conducting regular AI impact assessments, and implementing documented human oversight processes for decision-making," are becoming standard due diligence requirements.[17]

The complexity of AI systems presents unique challenges for traditional due diligence approaches. "Unlike static systems, AI often involves self-learning capabilities that can change its behavior over time, leading to novel risks or manifesting risks in unpredictable ways."[18]

EBITDA MULTIPLE DYNAMICS IN CONTEXT

While private companies are valued between 2x and 10x EBITDA, with the majority of transactions in the 4x to 6x range,[19] companies with superior IP and AI asset management consistently achieve multiples at the upper end or beyond this range.

The technology sector exemplifies these premiums. The median software company was acquired at 15.2x EBITDA and 3.0x Revenue, with many top-performing SaaS companies exceeding 6x revenue multiples, and segments tied to AI, cybersecurity, and automation sustaining higher valuations than the broader market.[20] These premiums reflect buyers' recognition of the defensive value and revenue sustainability that strong IP portfolios provide.

An example of a strong IP portfolio and AI system driving value in an acquisition is Hewlett Packard Enterprise Company's ("HPE") acquisition of Juniper Networks. HPE announced its agreement to acquire Juniper Networks in January 2024[21] and closed the acquisition in July 2025.[22] HPE acquired Juniper Networks for $13.6 billion, representing 17.8x EBITDA based on EBITDA of $762.8 million.[23] As part of the announcement in January 2024, HPE noted that the "explosion of AI and cloud-driven business is accelerating the demand for secure, unified technology solutions that connect, protect, and analyze a company's data from edge to cloud," and Juniper Networks is "a recognized leader in AI-native networks with tremendous innovation momentum."[24] HPE recognized the "incredible portfolio of intellectual property" and the AI technology that Juniper Networks brings.[25] Antonio Fabio Neri, HPE's CEO, President and Director, explained that the acquisition is a breakthrough for HPE because "for the first time in the history that I know since I've been in HP and HPE for 29 years, it's the first time the company will have the entire intellectual property stack to cover every aspect of that segment of the market.[26] Further, Mr. Neri said that HPE "will be able to complete the full, what I call modern stack networking portfolio of unique intellectual property featuring what we call the industry-leading secure AI network purpose built for AI with AI."[27] With the acquisition, "HPE is now positioned to deliver an industry-leading cloud-native AI-driven portfolio of infrastructure software and services anchored by a modern end-to-end networking stack as the core foundation," according to Mr. Neri.[28]

Another recent transaction is the acquisition of Ansys by Synopsys, which was completed in July 2025, after first announcing the acquisition in January 2024.[29] The acquisition was estimated at a value of approximately $35 billion, representing 48.8x EBITDA based on EBITDA of $717.76 million.[30] According to Synopsys, with the acquisition of Ansys, Synopsys "can maximize the capabilities of product R&D teams broadly enabling them to rapidly innovate AI-powered products."[31] Ansys is a leader in simulation and analysis. Ansys describes its use of AI as "revolutionizing engineering simulation with the power of Artificial Intelligence and Machine Learning. Our AI-augmented simulation is a game-changer, bringing unprecedented speed, innovation, and accessibility to the engineering world."[32]

FUTURE MARKET EVOLUTION

The intersection of IP management and AI governance will continue to gain prominence in M&A transactions as regulatory frameworks mature, and market participants develop more sophisticated evaluation criteria. The next decade will see further refinement and development of valuation standards through efforts like those of the Licensing Executives Society (USA and Canada) standards development organization.[33]

Companies that recognize this trend and invest in building robust IP and AI asset management capabilities will be well-positioned to capture premium valuations in future transactions. Those that treat these considerations as compliance afterthoughts rather than strategic value drivers risk finding themselves at a significant competitive disadvantage in the M&A marketplace.

The strategic imperative is clear: in an economy dominated by intangible assets, the management of intellectual property and AI resources has become central to value creation and preservation in M&A transactions. Companies that excel in this domain will continue to realize superior transaction outcomes, while those that neglect these critical assets face the prospect of diminished valuations and limited buyer interest.

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IP LICENSE STRATEGY & OPTIMIZATION – THE PRACTICAL CRASH COURSE

By Noor Al-Banna & Tomas Geerkens

In today's competitive innovation economy, optimizing intellectual property (IP) and intangible asset licenses is crucial for maximizing value and ensuring sustainable growth for businesses of all shapes and sizes. When done strategically and properly, licensing can be a powerful tool for companies to unlock and optimize the value of their IP assets through collaborative innovation or by expanding into new markets. This article aims to provide practical insights into IP licensing strategies, drawing from our extensive experience helping clients in real-world licensing scenarios.

IP LICENSE STRATEGY AND STRUCTURING

THE FOUNDATION OF A STRONG LICENSING STRATEGY
A well-designed licensing strategy balances economic incentives, risk mitigation, and operational feasibility. Key elements of a robust licensing strategy include:

1. **Aligning Incentives:** Structuring agreements so both parties benefit is essential to sustainable value creation in licensing. This ensures that both the licensor and licensee are motivated to adhere to the terms of the agreement and collaborate. While one-sided agreements may seem beneficial in the short term, they are not a recipe for long-term success for either side.

2. **Fair Market Compensation:** Ensuring fair compensation via reasonable royalties or alternative payment structures is fundamental. This includes balancing industry benchmarks with the specifics of the deal at hand.

3. **Risk Mitigation Mechanisms:** Effective risk mitigation strategies protect both parties from potential financial losses. These strategies cover a wide variety of risks, from IP misappropriation to underreporting of royalties to poor-quality products.

4. **Clear Audit and Compliance Procedures:** It is important to try and prevent ambiguity in contract enforcement. Clear audit rights allow for transparency and accountability in the licensing process.

SHOW ME THE MONEY: FINANCIAL AND ECONOMIC TERMS OF A LICENSE
The goal of a license is mutual economic benefit for both parties. Understanding economic terms is essential for maximizing value through risk/return optimization. While running royalties are the most common form of compensation, parties should pause to consider how different compensation structures can help them to optimize the risk/return profile of their licenses.

Key considerations include:

1. **Running Royalties vs. Upfront Payments:** Running royalties provide ongoing revenue, while upfront payments offer immediate capital. The choice depends on the financial goals and risk tolerance of both parties.

2. **Milestone Payments:** Payments tied to specific achievements or milestones can incentivize performance and innovation and act as a risk-sharing mechanism.

3. **Equity & Other Compensation:** Equity stakes or other forms of compensation can align interests and foster long-term collaboration.

HOW ROYALTY RATES ARE DETERMINED
A simple, fundamental principle we like to instill with our clients when considering royalty rates is that they **are a profit-sharing mechanism.** Thinking about royalty rates in this way helps frame the relative contributions of each party.

Royalty rates are influenced by several factors:

1. **Relative Contributions of Licensor/Licensee:** The value each party brings to the table. Contributions can be in the form of IP or complementary assets and capabilities. For example, a licensee may have little to no IP but may have complementary tangible assets needed to manufacture the licensed products and may commit significant efforts and capital to market development.

2. **IP Scope/Strength:** The breadth and robustness of the intellectual property at hand.

3. **Exclusivity:** Whether the license is exclusive or non-exclusive.

4. **Profitability:** The potential for generating profits from the licensed technology. The higher the overall expected profitability of the venture, the higher a potential royalty rate can be, all else equal.

5. **Other Factors:** Market conditions, the competitive landscape, and expected technological advancements—among other factors—also play a role.

CASE STUDY: HOLISTIC ROYALTY RATE DETERMINATION
A great example of a licensing deal involving a multi-faceted royalty rate analysis involves a large Japanese electronics company licensor and an American technology company licensee. Given the foundational nature of the patent portfolio involved in the negotiation and the significant amount of infringing revenues, it was essential to conduct a holistic royalty rate analysis. This involved an analysis of comparable license agreements, profit splits, litigation outcomes for similar patents, and a Georgia-Pacific analysis. Coming to the negotiation armed with a robust royalty rate analysis allowed the licensor to secure the best possible outcome for a license to its portfolio and made it difficult for the licensee to demand a below-market rate.

NOW OR LATER: RUNNING ROYALTIES VS. LUMP SUMS
Running royalties and lump sum payments each have their advantages and disadvantages. Running royalties provide a steady stream of income, while lump sum payments offer immediate capital. Balancing the two approaches can optimize financial outcomes.

CASE STUDY: BALANCING RUNNING ROYALTIES AND LUMP SUMS
During license negotiations with a Chinese manufacturing partner, an American light sport aircraft company faced the challenge of balancing lump sum payments and running royalties. The American licensor preferred running royalties to align incentives with the licensee and to share in the venture's future success. However, as a startup needing a cash infusion, it also sought upfront fees. These upfront fees also served as risk mitigation, ensuring some compensation regardless of the venture's outcome.

Ultimately, the upfront fees depended on the venture's expected performance, the royalty rate, and associated risks. Therefore, it was crucial for both parties to agree on a set of financial forecasts to use as a basis for calculating upfront fees. Once these forecasts were established, we assisted the clients with modeling various combinations of upfront fees and running royalties, leading to an agreement on the financial terms.

OWNERSHIP: BEYOND THE LEGAL AND INTO THE FINANCIAL
While simple licenses may only include the rights for IP assets that exist today, there are often development rights and obligations on behalf of the licensor or licensee. In these cases, development and ownership rights can significantly affect the economic value of a license. Understanding the impact of ownership of future IP development is crucial for optimizing licensing agreements, incentivizing the development activities, and avoiding disputes down the line.

CASE STUDY: OWNERSHIP FACTORS IN LICENSING AGREEMENTS
During an internal reorganization of its IP holdings, a large educational software company needed to evaluate several key factors: the valuation of IP assets being transferred between entities, the establishment of reasonable royalties charged by the IP holding company to various operating companies, and the balancing of these royalties against other intercompany payments for services such as research and development.

To determine a fair royalty rate, we started by analyzing comparable third-party software license agreements. It was crucial that these benchmark agreements included similar perpetual ownership terms and compensation structures. This approach ensured that the royalty rates reflected the long-term value of the IP and reflected a situation where the licensor was incurring (and thus being compensated for) the costs of associated research and development.

THE DEVIL IS IN THE DETAILS: OTHER KEY LICENSE TERMS AFFECTING LICENSE ECONOMICS
While it can be tempting to dismiss other license terms such as termination, confidentiality, and warranties and representations as "boilerplate," such provisions can also impact the overall economics and risk of a license. These details must be carefully considered to ensure a fair and beneficial agreement and avoid future litigation.

CASE STUDY: IMPACT OF KEY LICENSE TERMS
Failing to adequately consider the impact of "boilerplate" license terms on the economics of a license agreement can lead to significant issues, including litigation. For instance, we were consulted to assess the effects of poorly worded termination and quality control clauses on an agreement's risk and thus value as part of a litigation. The license agreement in question included a "termination at will" clause, despite the licensee's "best efforts" obligation to invest in and promote the licensed business. Generally, such a termination clause is risky in this context because it allows for unilateral termination by one party after the other has made substantial investments.

Additionally, this clause affected the ownership of licensed and developed IP. Compounding the issue, the agreement lacked provisions explicitly addressing ownership or rights to improvements of the licensed IP upon termination. This omission left the ownership of IP developments under the agreement in limbo. All these factors increased the agreement's risk, thereby diminishing its value, as risk inversely affects valuations.

UNDERSTANDING THE TECHNICAL SIDE OF A LICENSE
Technical considerations are essential for ensuring that the licensed technology can be effectively utilized and integrated. For instance, technical specifications might include data formats, protocols, hardware requirements, and software dependencies. Ensuring that both parties have a thorough understanding of these specifications helps prevent integration issues and ensures that the technology performs as expected.

As discussed above, licensing IP is not just about using existing capabilities; it is also about new innovations. This involves identifying how the licensed technology can be leveraged to create new products, improve existing ones, or enter new markets. By focusing on the potential for innovation and ensuring that license agreements adequately cover such future potential, businesses can maximize the value of the licensed technology and stay ahead in their industry.

PREPARING FOR MONETIZATION
Ensuring licenses are structured optimally prepares for other potential monetization options, such as leveraging licensing streams to enhance an eventual sale of the IP assets or for capital access.

IP assets with established licensing streams are significantly more attractive and valuable in the market than those without. They not only provide both immediate and long-term income potential through ongoing royalties but also show proof of technical and market validation of the IP. Potential buyers are more likely to invest in IP that has proven its worth and has a clear path to continued profitability.

Further, by showcasing consistent revenue from licensing, businesses can improve their creditworthiness and negotiate better terms for loans or investments.

STRATEGIC APPROACH
Optimizing intellectual property licenses requires a strategic approach that balances economic incentives, contractual protections, and operational feasibility. By understanding the financial and technical aspects of licensing agreements, parties can maximize each of their benefits, create mutually sustainable value, and prepare for future monetization opportunities.

IP LICENSE EXECUTION AND COMPLIANCE STRATEGY

BEYOND THE DEAL: SUSTAINING VALUE IN IP LICENSING
Structuring an IP license is only the beginning. In today's evolving business environment marked by shifting models, growing scrutiny, and increasing litigation, true monetization relies on rigorous execution and ongoing compliance.

Even the best-structured agreements can underperform without effective oversight. Underreported royalties, untracked sublicensing, and vague contractual terms remain common. Left unaddressed, these challenges can lead to revenue loss, reputational harm, and legal risks.

This section explores the operational backbone of licensing, from compliance programs and audit strategy to the essential tools that help licensors protect and maximize the value of their IP assets.

THE HIDDEN OPPORTUNITY: THE REAL COST OF NON-COMPLIANCE
Audits across industries reveal a consistent and concerning pattern:

- 85% of audited licensees underreport royalties.[1]
- 25% underreport by more than double the actual amount owed.[1]

Inaccurate reporting, disallowed deductions, and unclear contracts are among the leading causes. These issues represent far more than minor mistakes; they are systemic financial risks.

CASE EXAMPLES:
- Technology and OEM Licensing: Royalty misclassification resulted in multi-million-dollar repayments.
- Entertainment Streaming: Revenue-sharing gaps triggered lengthy litigation and settlements reaching hundreds of millions of dollars.
- Pharmaceuticals: Regulatory scrutiny exposed payment discrepancies, leading to headline-making settlements.

Licensors who neglect compliance leave revenue behind and expose themselves to serious risks.

ROYALTY AUDITS: A STRATEGIC TOOL, NOT A LAST RESORT
Audits are often misunderstood. Some licensees view them as confrontational or a sign of distrust, yet audits, when approached collaboratively, can foster transparency and strengthen relationships.

COMMON MYTHS AND REALITIES:

Myth: Audits damage relationships.
Reality: They promote accountability and normalize transparency.

Myth: Audits signal distrust.
Reality: They are standard governance mechanisms.

Myth: Underpayments lead to disputes.
Reality: When framed as course corrections, audits minimize tension.

Myth: Overpayments do not matter.
Reality: They reveal process inefficiencies that impact both parties.

A well-executed audit promotes financial accuracy and establishes a clear foundation for future negotiations.

COMPLIANCE RISKS: FROM FINANCIAL GAPS TO DIGITAL BLIND SPOTS
The following is a list of various financial, contractual, operational, digital, audit, and enforcement risks to look out for.

Financial Risks:
- Underreported sales
- Average selling price (ASP) manipulation
- SKU misclassification
- Hidden deductions and chargebacks
- Transfer pricing discrepancies
- Incorrect or delayed revenue recognition

Contractual Risks:
- Unreported sublicensing
- Sales in unauthorized territories
- Revenue beyond contract expiration
- Unlicensed SKU sales

Operational Risks:
- Limited SKU-level data
- Bundling and product substitution
- Data mismatches between systems

Digital and Emerging Risks:
- Untracked e-commerce sales
- Unauthorized NFT-based IP monetization
- Ambiguity in streaming and hybrid models

Audit and Enforcement Gaps:
- Vague audit clauses
- Limited audit rights
- Poor internal documentation

ADDRESSING LICENSEE CONCERNS: TURNING RESISTANCE INTO ALIGNMENT
Common licensee concerns include disruption, lack of trust, and fears over data security or audit costs. These can be mitigated through thoughtful approaches; for instance:

- Use desk or remote audits during off-peak times to minimize disruption.
- Position audits as standard compliance rather than suspicion.
- Provide checklists and encourage self-audits to ease preparation.
- Offer strict confidentiality agreements and secure data portals.
- Clarify that most agreements shift audit costs to licensees only in cases of significant underreporting.

Framing audits as collaborative processes drives licensee cooperation and long-term compliance.

BEST PRACTICES FOR EFFECTIVE COMPLIANCE PROGRAMS
The following are best practices that we have gleaned from decades of experience in compliance strategy, seeing what works and what does not:

- Embed audit clauses during contract negotiations.
- Use advanced technologies like AI and blockchain to detect anomalies.
- Segment audit strategies based on licensee risk profiles.
- Balance desk reviews, limited-scope assessments, and full audits.
- Translate audit findings into contract improvements.
- Maintain regular communication to foster alignment.

"Trust but verify" is more than a phrase. It is a proven approach to safeguarding multi-million-dollar revenue streams.

FUTURE-READY COMPLIANCE: WHERE STRATEGY MEETS INNOVATION
Compliance strategies must evolve with IP models and market dynamics. Emerging trends include:

- AI-powered audits that automatically flag reporting discrepancies.
- Blockchain technology to create verifiable royalty records.
- Adaptive frameworks to manage complex streaming and SaaS models.
- Increased regulatory scrutiny, particularly in transfer pricing and cross-border licensing.

Licensors who integrate compliance into their core IP strategies secure financial, competitive, and relational advantages.

WHERE STRATEGY AND EXECUTION ALIGN
While thoughtful IP license structuring sets the foundation for economically sound licensing deals, compliance strategy ensures those deals deliver their full value through rigorous compliance, transparent oversight, and risk management.

By embedding compliance into every stage of the licensing lifecycle, licensors can recover lost revenue, prevent disputes, strengthen partnerships, and future-proof their monetization strategies.

It is time to rethink compliance not as enforcement, but as strategic execution.

[1] IAM, Dispelling myths and avoiding risks as royalty compliance becomes a strategic imperative – IAM

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A TRIP THROUGH THE PSYCHEDELIC IP LANDSCAPE

By Noor Al-Banna

Over the past decade, the psychedelics industry has been undergoing a second renaissance, evolving from a niche and legally questionable research area into a burgeoning field that promises to redefine mental health and wellness. As more companies, academic institutions, and non-profits explore the therapeutic potential of compounds like psilocybin, MDMA, and LSD, the role of intellectual property (IP) will become an ever more critical component for protecting innovation, securing investment, and ensuring sustainable growth – while at the same time stirring controversy over novelty and prior art, indigenous rights, and other hot button issues.

In the first part of this series, we aim to provide a very high-level overview of the current state of the psychedelics IP landscape and highlight the different approaches to IP taken by various stakeholders in the field. In subsequent articles, we will take deep dives on various IP strategies in the space and, importantly, explore the related valuation issues they bring up.

THE CURRENT STATE OF THE PSYCHEDELICS IP LANDSCAPE

The current state of the psychedelics field is characterized by a complex and sometimes dizzying intersection of science, regulation, public sentiment, health and wellness, history, and spirituality. With increasing interest in the potential of psychedelics across the globe, the role of IP in the field has emerged as a hot topic of discussion. Currently, the field faces several unique challenges:

- Regulatory Uncertainty
- Scientific Complexity
- Ethical Considerations
- Public Sentiment

APPROACHES TO PSYCHEDELIC IP DEVELOPMENT & PROTECTION

Different organizations in the space are adopting varying approaches to IP. These approaches are often indicative of their underlying mission, business model (or lack thereof), and the specific compounds they are exploring.

APPROACH #1: TRADITIONAL IP STRATEGIES

There is perhaps no industry more intimately familiar with, and dependent on, IP protection strategies than the pharmaceutical industry. Pharma companies file patents on novel compounds, methods of synthesis, formulations, and therapeutic protocols with the aim of creating a robust portfolio that not only protects the underlying science but is also critical to attracting and de-risking investments. Perhaps the best example of the traditional approach to IP protection in the psychedelics space resides with COMPASS Pathways.

CASE STUDY: COMPASS PATHWAYS

COMPASS Pathways is a leading company in the development of psilocybin therapies for treatment-resistant depression (TRD), post-traumatic stress disorder (PTSD), and anorexia nervosa. As detailed in the patent analytics figures below, the company has secured a portfolio of patents related to:

- Crystalline forms of psilocybin.
- Dosing regimens and administration methods.
- Specific therapeutic protocols that integrate psilocybin treatment with psychological therapy.

COMPASS Pathways Patent Portfolio Technology Clusters

These patents have enabled COMPASS to build a strong competitive moat, attract significant venture capital funding, go public, and advance through advanced stages of clinical trials. By leveraging a traditional patent portfolio, COMPASS aims to demonstrate how classical IP strategies can be effective in navigating and succeeding in a space that is currently fraught with uncertainty, regulation, and competition.

APPROACH #2: OPEN SCIENCE AND COLLABORATIVE IP MODELS

In contrast to the traditional "closed" model of IP protection pursued by the likes of COMPASS, other organizations are embracing open innovation approaches. These models emphasize collaboration, data sharing, and collective progress over proprietary exclusivity. By making R&D findings publicly available or via non-exclusive licensing, these organizations aim to accelerate scientific discovery and maximize broader public benefit.

CASE STUDY: THE MULTIDISCIPLINARY ASSOCIATION FOR PSYCHEDELIC STUDIES (MAPS)

MAPS is a prominent non-profit organization that has for decades championed an open, collaborative model for advancing psychedelic research, particularly for MDMA-assisted therapies for post-traumatic stress disorder (PTSD). Instead of relying on the exclusionary nature of patents, MAPS:

- Prioritizes transparency in clinical trial data.
- Facilitates partnerships that encourage shared learning and resource pooling.
- Engages with the broader community of researchers and clinicians.

MAPS' approach aims to enable a faster pace of research and has fostered a collaborative environment where innovations are rapidly disseminated, potentially lowering the cost of therapy development and broadening patient access.

APPROACH #3: INNOVATIVE LICENSING & PARTNERSHIP MODELS

Some players in the psychedelic space are exploring and leveraging innovative licensing and partnership models as an alternative, or a complement to, classical patent protection. These models are focused on using strategic collaborations and licensing agreements to maximize the reach and impact of their innovations. Their goals is to balance the benefits provided by exclusivity with those that can be derived from collaboration and broader access to therapies.

CASE STUDY: ATAI LIFE SCIENCES

Atai Life Science is an example of a player in the psychedelics space which is adopting this approach. Atai's approach includes:

- Acquiring, licensing, and developing various psychedelic compounds and related technologies.
- Partnering with other biotech firms to share risks and accelerate clinical development.

Examples of such partnerships include Atai's:

- Investment in COMPASS Pathways[1]
- Joint Venture in Entheogenix with Cyclica[2]
- Joint Venture in Invyxis with Dalriada Drug Discovery[3]
- License with Psilera[4]
- Joint Venture in TryptageniX with CB Therapeutics[5]

Through this partnership model, Atai has been able to diversify its risk and accelerate development timelines. This approach broadens the pipeline of therapeutic candidates and also creates a framework where innovation can be quickly adapted to meet varying regulatory and market conditions across different regions. The figure below shows the various categories of patented technology within Atai's portfolio, not accounting for the broader of scope of Atai has access to through its various licenses and joint ventures.

ATAI Life Sciences Patent Portfolio Technology Clusters

CONCLUSION

The role of IP in psychedelics will no doubt continue to evolve. It's clear from the examples above that there is no one-size-fits-all approach. Each model offers unique advantages and challenges, reflecting the multidimensional nature of the psychedelics world. It remains to be seen whether certain approaches will win out over others, or whether they will coexist in a world where a rising tide lifts all boats. No matter the model, it will be important for industry participants to take a thoughtful approach to create sustainable value.

As the landscape continues to mature, stakeholders who successfully navigate the journey will not only protect their innovations but also pave the way for more accessible and effective therapies that can potentially benefit millions around the globe. In the next part of our series, we will explore such strategies in further detail and analyze the related impacts on the valuations of the companies and their underlying IP assets.

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THE GROWING IMPORTANCE OF THE CHIEF INTELLECTUAL PROPERTY OFFICER: A STRATEGIC IMPERATIVE FOR THE KNOWLEDGE ECONOMY

By James E. Malackowski & David Ngo

Discussion in the corporate boardroom is evolving rapidly. As the global economy has fundamentally shifted from one driven by tangible assets to one powered by intangible value, a new C-suite position has earned a seat at the table, a voice that is frequently regarded as essential for strategic leadership: the Chief Intellectual Property Officer (CIPO). This transformation reflects not merely a trend, but an economic reality demanding executive-level attention to intellectual property and intangible asset management.

THE ECONOMIC AND STRATEGIC NEED FOR CIPO LEADERSHIP

Ocean Tomo has been studying intangible asset value metrics in large cap size companies for more than a decade. Ocean Tomo's comprehensive Intangible Asset Market Value Study demonstrates that intangible assets command 90% of the S&P 500's total market value, a dramatic increase from just 68% in 1995. This represents more than $21 trillion in intangible value, fundamentally altering how businesses create, capture, and protect value.

Our analysis at Ocean Tomo also reveals a similar trend among small and medium enterprises (SMEs), though SMEs typically follow slightly lower concentrations of intangible asset value. These findings demonstrate that the shift toward an intangible economy extends past technology giants to companies of all sizes across every industry.

Too many companies, however, fail to actively manage underutilized IP assets, especially patents, to capture economic or strategic benefit, remaining unaware of significant earnings potential within their existing patent portfolios. A robust IP strategy enables patents to serve as powerful financial assets beyond their traditional legal protection role – to establish proprietary market advantages, enhance competitiveness, and increase shareholder wealth.

EVOLUTION OF THE CHIEF INTELLECTUAL PROPERTY OFFICER POSITION

Historically, the CIPO position emerged in response to the described economic inversion between tangible and intangible assets. Early pioneers in the role included prominent executives like Marshall Phelps at Microsoft, Carl Horton at GE, and Ruud Peters at Philips IP & Standards, who recognized that intellectual property required strategic oversight beyond traditional legal department management.

In 2009, CIPOs and experts (including one of the authors here) participated in the first CIPO Manifesto Working Group meeting in Chicago to define the emerging role. Industry leaders concluded the CIPO requires business strategists, not just legal experts, who can integrate IP into corporate strategy and execution. CIPOs provide the advantage of balancing long-term IP development with the shorter timeframes of quarterly earnings reports.

The evolution from attorney-managed IP functions to strategic CIPO leadership represents a fundamental shift in perspective in the past 10 to 15 years – from viewing intellectual property as a legal right and defensive tool to recognition of IP as an asset class comprising a valuable business resource with derivative value. This transformation acknowledges that effective IP management requires both legal expertise and business acumen.

As corporate leaders become more aware of intellectual property as a driver of corporate value, the CIPO position becomes increasingly necessary to provide a centralized overview and management of a company's IP strategy. Even so, the CIPO position remains overlooked in many large public companies as well as SMEs. CIPOs represent only a small number of S&P 500 companies.

CIPO AS STRATEGIC BRIDGE AND COMPLEMENT

The CIPO role serves as a critical bridge between multiple C-suite functions. Unlike the General Counsel or Chief IP Attorney, who focus primarily on legal protection and compliance, the CIPO brings a business-oriented perspective to intellectual property management. This role naturally complements and connects with the Chief Information Officer, Chief Technology Officer, and head of R&D through its emphasis on technology transfer, licensing strategy, and innovation commercialization.

CIPOs provide the unique advantage of bridging together legal, technical, and commercial domains – everything from patent prosecution and trade secret management to licensing deals and IP considerations in M&A transactions. This holistic approach helps to ensure that IP strategy supports corporate and executive strategies. The CIPO's responsibilities expand upon what we traditionally think of as IP management:

- **Strategic Planning and Portfolio Management.** Creating IP strategies aligned with corporate objectives, patent and trademark portfolio management, and competitive intelligence research.
- **Monetization and Value Creation.** Identifying licensing opportunities, negotiating IP transactions, and exploring alternative revenue streams from intellectual property assets.
- **Risk Management and Enforcement.** Assessing IP-related risks, managing litigation strategy, and implementing comprehensive IP protection protocols.
- **Business Integration.** Participating in M&A due diligence, supporting corporate development activities, and advising on IP implications of business decisions.
- **Innovation and R&D Collaboration.** Coordinating with research and development teams to secure IP rights for innovations and establish appropriate IP protections.

The foundation of effective CIPO engagement is reflected by Ocean Tomo's proven four-part IP management protocol:

- **Comprehensive Inventory.** Conducting a thorough assessment of company and competitive IP and intangible assets, establishing a baseline understanding of the intellectual property landscape.
- **Guiding Principles Development.** Preparing a focused set of strategic principles for managing these assets, with full support and buy-in from the senior executive team.
- **IP Business Plan Integration.** Creating an IP-focused business plan that serves as an overlay to and support for the company's overall business strategy, ensuring alignment between IP activities and corporate objectives.
- **Communication and Training.** Implementing comprehensive communication and training programs for senior and middle management, ensuring organization-wide understanding and execution of IP strategy.

This systematic approach provides CIPOs with a proven framework for delivering immediate value while building long-term IP management capabilities within client organizations.

BRIDGING THE IP LEADERSHIP GAP IN THE CONSULTING INDUSTRY

There is an even greater CIPO gap in the consulting industry. None of the top 25 consulting firms – including industry leaders McKinsey & Company, Boston Consulting Group, and Bain & Company – have established dedicated CIPO positions. This oversight represents both a strategic vulnerability and an opportunity. These firms, which employ hundreds of thousands of professionals and generate billions in annual revenue, regularly advise clients on innovation strategy, digital transformation, and competitive positioning – all areas in which intellectual property considerations play a crucial role.

J.S. Held's appointment of a CIPO is particularly relevant given the firm's ownership of Ocean Tomo, the leading intellectual property advisory firm, and J.S. Held's strong position servicing risk markets and major insurance businesses. With Ocean Tomo co-founder James Malackowski appointed as the first CIPO of a global consulting company, the firm's collective combination creates unique synergies between IP expertise and risk management capabilities that enhance an ability to serve clients across multiple dimensions of value creation and protection.

EMERGING IP RISKS IN INSURANCE INDUSTRY

Insurance companies face similar challenges. Major insurance underwriters have yet to establish CIPO positions, despite the growing exposure to IP-related risks and opportunities throughout the industry. The market landscape is likely to evolve rapidly as insurers develop more sophisticated tools and business solutions to better serve customers and policyholders, and as technology-driven companies with substantial IP portfolios become acquisition targets for insurance conglomerates.

The convergence of insurance and technology creates new categories of risk that require specialized IP expertise – from cyber liability policies that must account for trade secret theft to coverage for patent infringement claims in emerging technology sectors.

THE AI-ACCELERATED FUTURE

The emergence of artificial intelligence agents is accelerating the pace of innovation across all industries, making effective IP management even more critical. AI-driven innovation cycles are shortening the time between invention and commercialization, while simultaneously creating new categories of intellectual property that require sophisticated management strategies.

Without proper IP governance, companies face significant risks to their competitive advantages, heightened litigation exposure, and missed opportunities to monetize their innovations. AI-related IP complexities, ranging from training data rights to algorithmic patents, require executive-level attention and strategic oversight.

CONCLUSION: THE DECADE OF THE CIPO AND IP PORTFOLIO MANAGEMENT

The evidence is clear: the modern economy runs on intangible assets, and intellectual property serves as the legal framework that protects and enables the monetization of these assets. With intangible assets commanding 90% of S&P 500 market value and similar patterns emerging across all business sectors, the strategic management of intellectual property has become a board-level imperative.

Accelerating innovation cycles, emerging AI technologies, and mounting IP complexity have created an environment where intellectual property decisions carry both immediate and long-term strategic consequences. Organizations that acknowledge this shift and implement appropriate IP leadership will be better positioned to gain an advantage in navigating competitive challenges and capitalizing on innovation opportunities.

We predict that most well-managed companies will have a designated full-time or fractional CIPO before the end of the 2020s. The organizations that act first will gain competitive advantages in IP strategy, risk management, and value creation that will compound over time. The question is not whether companies need strategic IP leadership, but rather how quickly they can implement it.

The age of the CIPO has arrived. The only question remaining is whether your organization will lead or follow in embracing this strategic imperative.

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THE ROLE THAT INTELLECTUAL PROPERTY, ARTIFICIAL INTELLIGENCE, AND PUBLIC PERCEPTION PLAY IN MITIGATING CONCERNS OF INVESTORS IN THE NUCLEAR SPACE

By Spencer Brown

INTRODUCTION

One of the key drivers for the development of next-generation nuclear fission reactors—such as small modular reactors (SMRs) and micro-reactors—is the influx of capital from investors. However, some investors have been concerned. Georgia's Vogtle, the last commercial nuclear reactor in the US, cost over $30 billion and taken decades to complete, plagued by budget overruns and persistent delays. Until recently, nuclear companies relied heavily on the Department of Energy, which faced budget constraints in line with the growing federal deficit. Then, suddenly, AI datacenters, funded by tech titans such as Microsoft, Google, and others, provided the capital and interest needed to revitalize the industry once again. The nuclear industry, once in decline with suppliers exiting the market, has experienced a resurgence, with more investor interest driven by intellectual property (IP) developments, AI-driven energy demands, efficiency opportunities, and a younger generation enthusiastic about the prospects of carbon-free nuclear energy.

THE ROLE OF INTELLECTUAL PROPERTY IN THE NUCLEAR SPACE

Intellectual property (IP) has long been integral to the nuclear industry. Operational know-how, reactor core patents and technology, and trade secrets held close by SMR manufacturers are just a few examples of the value held within a nuclear company's IP portfolio. What was once an industry constrained by high capital expenditures (CapEx) is now a competitive landscape driven by international competition and strategic partnerships with well-funded AI datacenter operators. It used to be the case (as is the case with other power suppliers) that nuclear industry ROIs were stable and conservative. The industry commoditized nuclear fuel and fission reactor technology and established relationships with suppliers and power users. Disregarding (momentarily) the constraints that the Nuclear Regulatory Commission (NRC) placed on new reactors, nuclear power plants had not been a first-choice investment, as there existed many alternative investments with less risk and similar returns. No parties innovated in the key areas of development, leading to stagnant IP portfolios. With new and fierce competition comes a wave of innovation and the rapid growth of valuable IP portfolios.

In SMR and micro-reactor technology development, specifically, the competitive landscape is shaped by the development of new reactor cores and nuclear fuels. These two areas also remain the highest barriers from a safety perspective. Thus, industry leaders waited for increased funding, technological advancements, and fewer regulatory restrictions from the NRC. The resurgence in innovation, in part due to the R&D efforts and resulting IP of private companies in collaboration with National Labs (such as Argonne National Lab), guided investors back to nuclear. Policy makers responded to the market's needs by streamlining the licensing process, benefiting investors. Earlier this year, a May 2025 executive order directed the NRC to fast-track approvals for new SMR reactor designs by setting fixed deadlines, established a process for high-volume licensing of micro-reactors, and expedited safety assessments conducted by the Departments of Energy and Defense (DOE and DOD, respectively).

As the NRC begins fast-tracking licenses to companies like Oklo, Inc. (Oklo) for next-generation technologies, the value of the underlying IP increases significantly. There is a direct correlation between the value of the IP and the clearer path to market adoption due to the NRC's confidence in the safety of the next-generation reactors. The market capitalization of publicly traded companies like Oklo reflects this value.

Some companies are adopting innovative business models to overcome barriers to entry and deliver strong returns to investors. Terra Innovatum, for example, recently went public via a Special Purpose Acquisition Company (SPAC) reverse merger and plans to use commercially available technology to develop its 1 MW micro-reactor technology. By leveraging manufacturing know-how and trade secrets that incorporate commercially available components, Terra Innovatum aims to minimize dependence on custom supplier parts, a supply chain bottleneck that hinders SMR commercialization. Bridging the gap between first-of-a-kind (FOAK) and nth-of-a-kind (NOAK) reactors requires the establishment of a robust, standardized supply chain to ensure scalability and pave the way to profitability for potential investors.

Consequently, it is likely that some of these companies will be unsuccessful in obtaining a license to commercialize or will be unable to collect the necessary funds to go through the process of commercializing a reactor (an expensive process). Regulatory bodies, including federal, state, and local, must streamline this process to facilitate the integration of micro-reactors into the grid, as the standard timeline for nuclear reactor licensing would likely be too lengthy for these types of reactors to be economically feasible.

Lastly, licensing or selling technology is always an option to catalyze innovation. As it stands today, over 50 companies are continuing to develop technology that would contribute to the commercialization of next-generation reactors, all of which could move much faster with access to additional IP through acquisition or licensing.

THE ROLE OF ARTIFICIAL INTELLIGENCE IN THE NUCLEAR SPACE

Beyond the influence of AI data center demand, artificial intelligence is poised to transform nuclear operations. AI has the capability to optimize nuclear power plant processes, enhance safety through continuous monitoring, and streamline everything from supply chain logistics to electric power deployment directly to a grid or data center. Further to the point about the importance of IP in nuclear, the data necessary to train AI models/agents is proprietary and invaluable to current and future operators of nuclear power plants.

NRC Commissioner Matthew Marzano recently discussed the near-term impact of AI on the industry. He noted that AI is expected to augment NRC staff, improving the speed and efficiency of licensing approvals. The NRC plans to use generative AI to alleviate licensing bottlenecks, aligning with the current administration's push for faster nuclear deployment. Mr. Marzano also touched on AI's role in accelerating nuclear fuel development, highlighting that it would be useful in expediting the testing of edge cases. The NRC consistently oversees nuclear plant operations at the Pacific Gas and Electric Company, and using AI to improve operational efficiency is a priority for the NRC. The NRC's acceptance of AI use to aid technology development, operational efficiencies, and regulatory streamlining may serve as a catalyst to bring investors back to the nuclear industry.

Microsoft's Director of AI, Nelli Babayan, stated that the company is ready to deploy AI agents in nuclear facilities faster than the NRC can approve them. These agents are intended to support human-led operations while mitigating security risks by protecting proprietary data. Matt Dennis at the NRC commented that he believes the timeline for implementing the said AI agents is 5-10 years.

Industry leaders anticipate mitigating AI-related risks through a slower implementation process and a "trust but verify" methodology. Stephane Baude of the International Atomic Energy Agency (IAEA) recently downplayed concerns about malicious AI agents, noting that operators already use machine learning for data collection. She argued that AI inspectors would function similarly to human inspectors in terms of data gathering.

Investors are likely to anticipate reductions in operating costs with the implementation of AI, lower CapEx barriers to entry with reduced regulatory costs, and shorter timelines with fewer bottlenecks in the licensing process.

THE ROLE OF PUBLIC PERCEPTION IN THE NUCLEAR SPACE

Nuclear energy enjoys bipartisan support. While some executive orders from the current administration have faced public scrutiny, recent directives aimed at expediting the deployment of next-generation reactors have been met with enthusiasm. The Biden Administration also maintained strong support for clean energy, and thus, the DOE has invested millions of taxpayer dollars towards this effort. An improved public perception of nuclear energy has helped create a more favorable political and regulatory climate, which in turn encourages private investment and reduces pressure on the US government to act as the sole financial backer of new nuclear projects. Next-generation reactors promise safety, reliability, and clean energy to the public, and this premise has reached a comfort threshold among the American people, leading to greater than 60% public support for using nuclear energy to provide electricity in the US, according to a 2025 Gallup poll.

Public support reduces the risk of pushback from federal and state governing and regulatory bodies, again mitigating the concerns of potential investors in the industry.

CONCLUSION

The convergence of technology and intellectual property development, artificial intelligence, and growing regulatory and public support is reshaping the nuclear energy landscape. Investor confidence continues to grow as IP becomes a strategic asset, and AI accelerates both regulatory and operational efficiencies. Public support, bolstered by bipartisan policy and an intrigued younger generation, is further reducing perceived risk to investors. The nuclear industry, rising from the ashes, is now defined by innovation, growth, and a renewed relevance in the US and global energy mix.

To explore this topic further, please contact:

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OCEAN TOMO, A PART OF J.S. HELD, EXPERTS RECOGNIZED AMONG WORLD'S LEADING INTELLECTUAL PROPERTY STRATEGISTS

By James E. Malackowski

Nine experts from Ocean Tomo are recognized among the World's Leading Intellectual Property (IP) Strategists. The IAM Strategy 300 is a guide to the pioneers in the IP industry, recognizing those who innovatively create and implement strategies that support IP as a critical business asset.

What sets Ocean Tomo apart is our integrated four corridors of IP services: Expert Opinion, Management Consulting, Advisory, and Specialty Services. We are proud that we can now showcase experts in each group as having been recognized among the World's Leading IP Strategists. This recognition further demonstrates our role as trusted advisors focused on the business of intellectual property broadly defined.

MEET THE WORLD'S LEADING IP STRATEGISTS FROM ACROSS OCEAN TOMO

Greg Campanella, CLP
Greg Campanella provides strategic advisory, valuation, and opinion services focused on IP and intangible assets for planning, M&A, divestitures, litigation, and tax. With 25+ years of experience, he's performed hundreds of analyses across industries and helps optimize, monetize, and align IP portfolios with business goals and innovation strategies.

IAM Says:
"Greg Campanella brings deep expertise in valuing both intangible and tangible assets, which he applies to M&A transactions, complex litigation, and licensing deals. His approach bridges technical precision with strategic insight to deliver impactful results for his clients."

John A. Hudson
John A. Hudson focuses on protecting and realizing IP value. With 20+ years' experience, he's completed global IP transactions, audits, licensing, and strategic advisory. He's supported M&A, capital raising, divestitures, litigation, and restructuring across industries for Fortune 500s, universities, governments, PE/VC firms, insurers, and inventors.

IAM Says:
"John Hudson brings over two decades of investment banking, valuation, and IP strategy experience to the table, where he focuses on technology and IP transactions. His portfolio includes engagements with Fortune 500 companies, private and middle market companies, PE and VC firms, and government agencies across various industries, demonstrating his capability in navigating complex financial landscapes."

David Kennedy, CPA
David Kennedy is an expert in IP valuation and patent transactions. With 35 years' experience as a CPA, auditor, and consultant, he's negotiated 200+ IP deals, analyzed thousands of license agreements, and developed royalty models. He's worked with inventors, corporations, and investors, monetizing global portfolios and determining standard essential patent rates.

IAM Says:
"With a well-established reputation among peers, David Kennedy draws on more than three decades in the field to evaluate damages, patent portfolios and licensing matters, offering dependable strategic advice."

Brian W. Napper
Brian W. Napper is an expert in IP economic damages, valuation, licensing, and commercialization. With 35 years of experience, he provides trial and arbitration testimony across courts and tribunals, including the ITC. His work spans patents, trade secrets, copyright, trademark, and false advertising, supporting transactions and IP strategy across industries globally.

IAM Says:
"Brian Napper is an impressive damages expert known for his in-depth IP knowledge, clear testimony, and collaborative style. Brian proposes novel strategies that not only tackle complex issues but also maximise IP value."

Larry Tedesco, CVA, CLP, MAFF
Larry Tedesco is an IP valuation, licensing, and damages expert. He's developed and monetized IP across telecom, medical devices, software, electronics, manufacturing, and AR. He's negotiated 200+ IP transactions, reviewed thousands of license agreements, and determined FRAND rates for wireless, Wi-Fi, and A/V, supporting plaintiffs and defendants in disputes.

IAM Says:
"One of the top patent damages and valuation guys in the IP world. Larry Tedesco can be trusted to create and maintain intellectual property strategies professionally, efficiently, and effectively."

Ozer Teitelbaum, JD
Ozer Teitelbaum plays an integral role in Ocean Tomo's investment banking and asset management initiatives, including IP-driven transactions, M&A, monetization strategies, financing, and special situations. With 30+ years of experience, he's held senior IP roles at Alcatel Lucent, Lucent Technologies, United Technologies, and Micron, and began his career as a research scientist.

IAM Says:
"Ozer Teitelbaum's superb legal expertise, keen commercial insight, and rich understanding of the IP landscape make him an invaluable ally to his clients. He maneuverers through complex IP-driven transactions with a deft touch, crafting comprehensive strategies that meet his clients' needs."

Marek Wernik
Dr. Marek Wernik has 40+ years of experience in advanced technology research, product development, and IP management across telecom, wireless, IT, media, and semiconductors. He held senior IP roles at Alcatel-Lucent, Nortel, and others, focusing on broadband switching, optical networking, and data standards. He holds a PhD in Electrical Engineering.

IAM Says:
"Valued for his strategic acumen and business-oriented mindset, Marek Wernik brings a wealth of IP knowledge and technical skill. He prioritises his clients, always aiming for outstanding results, and effectively maximises the value of their portfolios."

Sam Wiley
Sam Wiley is a globally recognized IP and innovation expert. He's known for turning complex challenges into strategic opportunities. He's held key roles at the USPTO, CPA Global, and LOT Network. He manages IP-related projects across several practice areas and advises on leveraging IP intelligence and analytics to support business decision-making.

IAM Says:
"Recognised as 'one of the best experts in providing understanding of the value of IP,' Sam Wiley adeptly guides his clients through the intricacies of IP management. His multidisciplinary approach turns legal challenges into business opportunities—while reducing litigation risk."

Ryan Zurek
Ryan Zurek leads Ocean Tomo's IP Investment Banking, M&A, and Transactions Practices. With 18+ years of experience, he's executed technology-driven deals exceeding $1B. He holds FINRA Series 7 and 63 licenses and develops monetization strategies. He lectures on IP investment banking and technology monetization at leading universities.

IAM Says:
"Ryan Zurek's strategic vision and expertise position him as a pivotal figure in facilitating IP-driven transactions, mergers and acquisitions, and monetization strategies. He possesses a deep understanding of his clients' needs and objectives, working closely with them to turn these goals into reality."

OCEAN TOMO'S 360 DEGREE INTELLECTUAL PROPERTY EXPERTISE

These experts are part of the industry's most comprehensive global IP consulting group. Ocean Tomo's 360 Degree Intellectual Property Expertise provides continuous feedback enhancing the team's ability to deliver credible, actionable insights across all matters involving intangible assets.

Clients benefit from Ocean Tomo's unique understanding of IP value, which is driven by the firm's engagement across all matters involving intangible assets, spanning strategic planning, investments, disputes, and transactions. Litigation outcomes refine valuation methodologies, while advisory engagements are shaped by real-world insights from both the boardroom and public markets. Our transaction outcomes—buying, selling, and licensing IP—validate strategic decisions and inform how IP is valued in practice. Ocean Tomo valuations used by IP owners to access capital provide insight on how financial institutions recognize IP as a bankable asset.

As a part of J.S. Held, Ocean Tomo works alongside more than 1,500 professionals globally and assists with complex technical, scientific, and financial matters across all assets and value at risk. The team of experts has deep experience with tangible and intangible assets protected by IP.

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