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The State Of AI Adoption In The Patent Field

By **Michael Drapkin and Michael Colacchio** (July 9, 2025, 6:15 PM EDT)

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Generative AI was initially expected to experience rapid adoption in patent-related practices due to its alignment with core practitioner skills, such as summarization and analysis. The public nature of patent data, and the abundance of technical documentation, further supported this expectation.

Consequently, a variety of tools and services have emerged, catering to search, analytics, litigation and drafting, both for preparation and prosecution. However, actual adoption rates have lagged behind these early predictions, particularly within larger enterprises and traditional law firms.

One reason for this pace of adoption is the complexity associated with larger enterprises and firms. OpenAI co-founder Andrej Karpathy recently summarized these issues well on X, noting that larger organizations:

> deal with problems of a lot greater complexity and necessary coordination, think: various integrations, legacy systems, … stringent security protocols, privacy considerations, … regulatory compliance and legal risk. There are a lot more variables, a lot more constraints, a lot more considerations, and a lot lower margin for error. …
>
> [Moreover] there is the well-documented inertia of a larger organization, featuring culture, … communication overhead, re-training challenges of a distributed workforce and good old-fashioned bureaucracy.[1]

So, adoption remains in its relatively early stages. Larger law firms are cautiously evaluating AI patent tools. Corporate IP departments, particularly larger ones, are often less inclined to allow external AI drafting tools. Smaller in-house teams with budget constraints are more actively seeking cost-effective AI solutions.

To better understand the adoption timeline and the multifaceted factors influencing it, we conducted 47 interviews with leaders from prominent law firms, technology companies and relevant IP organizations.

Forty-three percent of the interviewees were partners at law firms that were in the top 100 law firm patent filers in the U.S., and 21% of the interviewees were senior in-house counsel at companies that were among the top 300 patent filing companies in the U.S. The interviews largely took place in late 2024 and early 2025.

In this article, we'll review our findings, and provide a number of recommendations to navigate this landscape.

Interviews

Based on our interviews, there were six core themes that emerged from practitioners explaining the slower adoption.

1. Data Security and Privacy

There is significant concern about where data is stored and how secure it is when using AI tools.

Practitioners are worried about data leaks and the potential for sensitive information to be exposed or used to train models. Many practitioners are hesitant to use AI due to a fear of being held responsible if something goes wrong. Some in-house counsel also expressed concern that many law firms may not have the most up-to-date security systems.

2. Accuracy, Quality and Trust in AI-Generated Content

There is widespread skepticism about the quality and accuracy of AI-generated patent work. Many in the field are concerned that AI tools may produce substandard work and errors. Additionally, practitioners are hesitant to trust AI because they don't fully understand how it works and how to test its outputs. The legal field also has a high expectation for zero-defect documents, and the current level of AI tools may not meet this standard.

3. Workflow and Process Changes

Implementing AI tools often requires significant changes to existing workflows, which can be disruptive and slow down adoption. Many firms and companies are resistant to changing their current workflows, as there are perceived efficiencies and investments embedded in these processes.

4. Fear of Job Loss and Professional Obsolescence

Some legal professionals fear that AI will diminish their relevance and potentially lead to job losses. Many, whether consciously or subconsciously, see AI as a threat to their livelihood and are therefore reluctant to embrace it.

5. Resistance to Change

The legal profession, particularly in patent law, has been slow to embrace new technologies. There is a tendency to stick with traditional methods, even if they are less efficient. Many are comfortable in their established practices and hesitant to change.

6. Cost

There is a concern about the costs of implementing AI tools and whether those tools will provide a good return on investment. Law firms are increasingly looking for ways to reduce costs, but they also want more data about how adoption will affect their bottom line.

Surveys: Inhibitors to AI Adoption

To gain a deeper understanding of the barriers to AI adoption in the patent field, we conducted follow-on surveys asking respondents to rank the above six factors inhibiting adoption, from most important to least important.

The survey results indicate several key trends. First, data privacy and security, and the accuracy, quality and trustworthiness of AI-generated content, are widely perceived to be the most critical factors influencing adoption. The challenges associated with workflow and process changes were also seen as a significant impediment, underscoring the importance of developing user-friendly tools and providing adequate training and support.

When asked to identify the biggest challenges, one practitioner noted that the perceived "time investment to get there, building the trust around it, figuring out the process, and [figuring out] … the verification process" combined to form a significant "hurdle."

These concerns seem reasonable and logical. But beneath the surface there are some interesting cracks in this armor. For example, the vast majority of AI providers have invested heavily in security, providing transparency and assurance that confidential data won't be shared or used to train models.

Companies have created compliance dashboards and security auditing, and robust privacy and security have become table stakes. In addition, it is widely accepted that AI boosts work performance significantly.[2]

So what do we make of this? As Clayton Christensen pointed out in his book, "The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail," established firms frequently struggle when faced with disruptive innovations that can change the market landscape. Incumbents, locked into old structures and processes, may struggle to switch solutions and catch up when new technologies gain traction.[3]

Christensen's research showed how incumbents' investment in sustaining innovations often blinds them to disruptive threats. These sustaining innovations are improvements to existing processes and services rather than reimagining new workflows with AI. Another concept that Christensen identified — organizational inertia — was mentioned by Karpathy in his X post as well.

While many feel that AI is unlike anything that has come before, analyzing it as a disruptive technology using time-worn principles can provide important insights.

Broad Conclusions and Insights

Larger firms and companies currently prioritize risk management, compliance and robust internal evaluations before seriously considering adoption. But over the next few years, AI functionality in the patent space will accelerate substantially, reshaping workflows and competitive dynamics.

Three of the leading startups in the patent space have each recently raised large funding rounds — DeepIP with $15 million, Solve Intelligence with $12 million and Patlytics with $14 million — that will drive significant functionality.

As such, patent practitioners should take certain actions to implement and adapt to AI.

1. Accelerate pilot projects to move these projects to the implementation phase.

Firms should not simply test AI tools but aggressively push pilot programs into full implementation. This involves dedicating resources, training staff and integrating AI into existing workflows. AI should be integrated into or replace core workflows in a modular way.

2. Iterate and adapt rapidly, as disruptive technologies evolve quickly.

The AI landscape is dynamic. Organizations must be agile, constantly evaluating new tools, adjusting workflows and updating strategies. This means setting up feedback loops, monitoring AI performance and being prepared to pivot quickly when new and better solutions emerge. A rigid approach — for example, creating slow processes or excessive bureaucracy — will be ineffective given the pace of change.

3. Collaborate to establish best practices that support effective AI use.

The industry needs guidelines for ethical and effective AI use. Practitioners should actively participate in forming this framework, contributing to discussions to help shape best practices, and learning from other practitioners. This includes collaborating with technology providers, law firms, and IP organizations to develop frameworks for transparency and data security.

4. Consider how the above changes will affect law firm business models, and the actions necessary now.

AI will fundamentally alter how law firms operate, and that will have a profound impact on practitioners, firms, clients and patent policy. These groups need to analyze how AI integration affects service delivery, pricing, staffing and client relationships. This will require strategic planning, financial modeling and restructuring. Proactive changes now, rather than reactive adjustments later, can provide a competitive advantage.

5. When hiring or making other long-term investments, consider the pace of change and whether such resources will be needed in the rapidly evolving landscape.

Long-term decisions must account for AI's impact. For example, hiring should focus on adaptable individuals who can learn new technologies and whose skill sets will be more valuable as AI's impact

becomes more profound.

Infrastructure investments should be flexible and scalable. Organizations should avoid locking themselves into long-term contracts with specific providers that might not be optimal. The future of patent law will likely require different skill sets and resources, so foresight is crucial.

6. Consider creating separate, smaller units, either within the organization or in a spin-off, with different processes and values.

Traditional organizations and teams may struggle to adapt to AI, for the reasons discussed above. Creating separate, agile units allows experimentation with new AI-driven workflows and business models without disrupting the existing organization. These units can focus on innovation, develop new services, and act as learning centers for the larger firm. This approach also recognizes that different values and processes might be necessary for AI-focused services compared to traditional patent law.

Bret Taylor, chairman at Open AI, provided excellent advice in a recent podcast episode that is applicable here:

> I think people just need a lot of agility. I always use the metaphor where [there are a] bunch of accountants, and Microsoft Excel was just invented.
>
> Are you going to be the first person who sets down your HP calculator and says, I'm going to learn how to use this tool because it's just a better way of doing what I'm already doing?
>
> Or are you going to be the one who's … begrudgingly pulling out their slide rule and HP calculator and saying "these kids these days, you know, their Excel, they don't understand."[4]

Patent practitioners have the opportunity to decide which side of history they want to be on.

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[1] Andrej Karpathy [@Karpathy]. "Power to the people: How LLMs flip the script on technology diffusion" X, April 7, 2025

[2] See Ethan Mollick, May 22, 2025, Making AI Work: Leadership, Lab, and Crowd, One Useful Thing Substack Publication.

[3] See Christensen, Clayton M. The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail. Harvard Business School Press, 1997.

[4] "The AI Architect." Latent Space podcast. February 11, 2025, https://www.latent.space/p/bret

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