



From Innovation Incentives to Technology Diffusion – Protection of Intellectual Property Created by Agentic Artificial Intelligence

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The law currently provides creators exclusive rights over their creation for a limited time, which gives a human inventor or author a reason to invent or do the work. The harder question is what happens to it when the creator is a machine. This article looks at agentic artificial intelligence, meaning systems that set their own goals, plan, use tools and act with little human supervision, and asks whether the speed of their spread points to a new generation of intellectual property theory.

I. The unstated assumption

Reward an inventor or writer with an exclusive period, and the reasoning is that she or he will be motivated enough to pursue expensive projects knowing that others cannot profit from them without paying the inventor first. This is sound reasoning based on an unstated premise, namely that a human is the creator, and the motivation is supposed to spur him or her to action. What happens when we take away the human?

Agentic AI does not give the law a fresh reason to grant exclusive rights. What it does, and faster than anything before it, is push along a change already under way. The spread of a technology, its diffusion, has grown from a side effect of the incentive system into a test that now sits beside it. The strain shows up in two ways. The gap between an invention and its uptake, which diffusion scholars spent decades measuring, has nearly vanished. Technology diffusion is now super-fast with new systems reaching users worldwide in days rather than in decades. Since agentic AI is a general purpose way of inventing, what spreads is not just a product but the ability to invent itself. The early reactions of the existing intellectual property system, rules out any form of machine invention or machine authorship in the Thaler litigation. This indicates the pressure placed on the human foundation during this period of rapid diffusion.

Agentic artificial intelligence challenges that quiet assumption. The term covers a system that makes a goal, breaks it into steps, decides its own next moves, reaches for tools such as a web browser, a piece of code or a software interface, and adjusts as it goes, with a person checking in only occasionally. Systems like this are entering everyday life faster than anything in the historical record, and they do so while the thing producing their output is not a human person but an agentic AI device.



The question is whether the recent rapid technology diffusion, the shift captured in the World Intellectual Property Organization's 2026 flagship report, marks the start of a new generation of intellectual property theory. This perspective signals a shifting balance, in which diffusion has come to be seen as a measure that is alongside the measure of incentive rather than subordinate to it. The agentic technology doing most to unsettle the standard norms of patenting, by cutting invention loose from any human the law can reward, is also the one spreading fastest. This incentive paradigm and the human at its centre need to be examined and also what all this means for India and the Global South.

II. What diffusion means, and why the curve has nearly gone vertical

The 2026 WIPO Report defines technology diffusion as the process by which, in its words, "new ideas spread from early inventors to widespread users," a process that shapes economic development and that, as the Report is careful to say, is neither automatic nor uniform. Four concepts sit around that idea. There is the diffusion of technological knowledge, i.e. the spread of the underlying know-how rather than the finished product. There is technology adoption, one user's choice to take something up. There is technology transfer, the deliberate handing over of a technology from one party to another. And there are knowledge spillovers, the understanding that leaks, unpaid for, from those who create it to those who happen to benefit. Diffusion is the umbrella; the rest are its mechanisms and its side effects. Consider any innovation. Mass adoption never happens immediately. A brave minority of adopters tries this new technology, perhaps even before its effectiveness is proven. A somewhat bigger group of early adopters is followed by the early majority, the late majority, and the laggards, who only join in after everybody else has done so. Graphically representing the number of people adopting over time produces a curve in the form of an S, which starts off slow, becomes steep during the peak, and levels out when all potential adopters have already adopted. Thus, according to this perspective, diffusion is the S-shaped curve itself, with the slope of ascent being the main variable of interest for policymakers.

Agentic AI sits at the far edge of that picture. The telegraph took on average almost fifty years, and the automobile about thirty-six years, to reach countries around the world. Generative AI reached users in almost every country within days of going public. This includes hardware such as robotic arms, agentic AI glasses, autonomous vehicles, autonomous drones, software agents such as digital assistants, and enterprise platforms such as wealth management agent or autonomous procurement systems. The adoption of this technology is within days of release. The S has nearly stood up into a straight vertical line. The very gap that diffusion theory was built to measure has all but gone, and that is the first reason agentic AI is such a hard test for any theory built around diffusion.



III. The incentive paradigm due to agentic AI

Exclusive rights give the innovator some control and thus an incentive to invest. This traditional view represents the innovation as a trade-off: the cost of the monopoly, along with the losses to all those who, otherwise, could buy it cheap, is compared with the invention which the promise of monopoly inspires. Patents refer to this entity as an inventor, while copyrights refer to them as authors. Both mean a living person. The belief is that there is a person in place during the act of creation who will react to this offer of an incentive. Agentic AI attacks that assumption from both sides. On the one hand, the invention is accomplished through a true technological breakthrough, without any human deliberation involved. Hence, there may be no person whose creative effort can justly be recognized by the patent or copyright reward system. On the other hand, the invention appears to resemble a tool, and the issue becomes how much contribution on the part of the human operator needs to be present to qualify as the inventor or author under the patent law or copyright law. These two issues arise the moment the agentic AI tool itself begins to plan, choose, and adapt.

IV. The Agentic AI in practice: autonomy, speed, and percolation

Autonomy, i.e., the possibility to work independently and to make decisions without human consent is what defines the concept of an AI agent. According to the recent cross-institutional study, the 2025 AI Agent Index, there are already thirty autonomous systems in use in a variety of environments such as chats, browsers, and businesses. There are three features of this index important to the topic at hand. First, the speed: twenty-four out of thirty were introduced or upgraded in 2024 and 2025, along with the rising interest in the research of the issue. Second, the geography is lopsided, with development clustered in the United States and China. Third, the Index finds that due to the nature of the agent ecosystem, no single entity bears clear responsibility for harm.

How far these systems have already reached into daily life is set out just as plainly. The 2025 AI Index Report records that the United States Food and Drug Administration cleared 223 medical devices with AI features in 2023, up from six in 2015, and that a single driverless vehicle operator now runs over 150,000 trips a week. Agentic AI is stated in the very same report to be the future of application in businesses, although there are still difficulties in using it in its full potential. Thus, the general trend may be described in terms of a fast-growing diffusion curve, the development being limited to a few countries, and an autonomy which complicates the usual process of accountability attribution. Each of the features discussed is connected to a certain element of the theoretical model presented below.

V. Diffusion as a deliberate objective, and moving away from



outputs to inputs

Where diffusion is evolving from an unintended by-product to a deliberate objective, there can be no better example of this than that of agentic AI. In the 2026 Report, diffusion is seen as a determinant of the benefits received through innovation where intellectual property is one of the institutions shaping this result. The patent literature also supports this. According to WIPO, there were around 54,000 generative AI inventions over ten years until 2023 – an increase of more than 800 percent since 2017 when transformers became a reality – and this activity is concentrated in just a few nations. Thus, diffusion of agentic AI involves more than simply diffusion of output into society. It includes the rapid spread of patenting as well.

The more interesting question is what, exactly, is spreading. Cockburn, Henderson and Stern (2018) argue that deep learning may be less about automation than about acting as a general purpose 'method of invention'. This is something that could reshape research itself and how it is organised. If that is right, agentic AI spreads the 'ability to invent'. Control over the tools and data that machine invention depends on, including through intellectual property rights, steers both how much innovation happens and in what direction, and being open with key datasets may affect how productive research turns out to be.

VI. The system's first answer: holding the line at the person

In India, Section 83 of the Patents Act 1970 already says that patents should be granted in order to promote inventions and to ensure that inventions are exploited on a commercial basis in India, and that patent rights should make a contribution towards technological innovation and the transfer and dissemination of technology. Section 2(d)(vi) of the Copyright Act 1957 stipulates that the author of a computer-generated work is the person by whom the arrangement necessary for the creation of the work is caused. According to the 2026 report, WIPO's patent landscape puts India fifth in the list of locations of generative AI inventors.

On the patent side, the United Kingdom Supreme Court held in *Thaler v. Comptroller-General of Patents, Designs and Trade Marks* (2023) that an inventor must be a natural person, and that owning a machine which invents gives the owner no separate claim to a patent. It pointedly left open the different case of AI used as a sophisticated tool by a human inventor. The United States Court of Appeals for the Federal Circuit has reached the same conclusion in *Thaler v. Vidal* (2022), and the Supreme Court declined to review that decision (2023). The United States Patent and Trademark Office rescinded its February 2024 guidance in November 2025 and replaced it with revised guidance, which treats AI systems as instruments and applies the traditional conception standard, so that an invention is not ruled out just because AI helped make it, provided a natural person conceived what is claimed.



In 2025 the United States Court of Appeals for the District of Columbia Circuit held that the Copyright Act requires a work to be authored in the first instance by a human being, so a work a machine produces on its own cannot be registered. The Copyright Office's study from the same period reached the same conclusion, while keeping protection open for works made with AI that still carry real human creative control. The Supreme Court in *Thaler v. Perlmutter* (2025) has since declined to take up the question, which leaves that position in place. As things stand, neither regime gives machines intellectual property standing of their own, while both leave room for agentic AI as a tool in human hands.

VII. A suggestion for reform

Agentic AI represents the case where the incentive is stripped away from any human author, the diffusion of technology is replaced by the diffusion of the capacity to invent, and the speed of this diffusion is unmatched by any precedent. Agentic AI poses the unsettled problem of who is the owner, when systems act on their own. Three lines of change are suggested. Firstly, lawmakers can give the diffusion goal for agentic AI inputs a clear statutory form, so that human ownership of the data, models and computing power on which agentic AI depends, and of its outputs, is clear. Secondly, courts and IP offices may address how much human involvement is needed in work specifically created with the help of agentic AI. Thirdly, the accountability gap calls for a clear allocation of responsibility for autonomous action by agentic AI.

Where an agentic AI machine determines its own goal, decides how to accomplish it, and delivers a product autonomously, the product is delivered to the world in days rather than decades. In the Thaler cases in both the UK and the US, the determination was that the inventor or the author had to be a person. These cases do not give any guidance about who should be entitled to the benefits of agentic AI machines' products.

Agentic AI does not spread merely a product but the very capacity for invention. This capacity, as things stand today, is with only a few nations. For India and the Global South, the relevant issue is not the ownership of the product of the agentic AI machine but the access to the data, model, and computation power which make it possible to create the product. None of these are protected by patents; they are controlled by contract, trade secret, and ownership of hardware. If diffusion is to join the company of incentives, we must think about how to deal with inputs into machine inventions and not just their output.

References

1. Everett M. Rogers, *Diffusion of Innovations* 282–85 (5th ed. 2003) (1962).
2. Iain M. Cockburn, Rebecca Henderson & Scott Stern, *The Impact of Artificial Intelligence on Innovation: An Exploratory Analysis*, in *The Economics of Artificial Intelligence: An Agenda* 115,



- 115–46 (Ajay Agrawal, Joshua Gans & Avi Goldfarb eds., 2019) (originally published as NBER Working Paper No. 24449, 2018).
3. Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in *The Rate and Direction of Inventive Activity: Economic and Social Factors* 609, 616–17, 619 (Richard R. Nelson ed., 1962).
 4. Leon Staufer, Kevin Feng, Kevin Wei, Luke Bailey, Yawen Duan, Mick Yang, A. Pinar Ozisik, Stephen Casper & Noam Kolt, *The 2025 AI Agent Index: Documenting Technical and Safety Features of Deployed Agentic AI Systems*, in *Proceedings of the 2026 ACM Conference on Fairness, Accountability, and Transparency (FAccT '26)* (2026).
 5. Ryan Abbott, *The Reasonable Robot: Artificial Intelligence and the Law* 71–90 (2020).
 6. Stanford Inst. for Human-Centered Artificial Intelligence, *Artificial Intelligence Index Report 2025, Top Takeaways* (8th ed. 2025).
 7. Stanford Inst. for Human-Centered Artificial Intelligence, *What Is Agentic AI?* (n.d.).
 8. *Thaler v. Comptroller-General of Patents, Designs & Trade Marks* [2023] UKSC 49, [56]–[59], [73], [79], [84]–[85], [89].
 9. *Thaler v. Perlmutter*, 130 F.4th 1039, 1042–45 (D.C. Cir. 2025), *cert. denied*, No. 25-449 (U.S. Mar. 2, 2026).
 10. *Thaler v. Vidal*, 43 F.4th 1207, 1211–13 (Fed. Cir. 2022), *cert. denied*, 143 S. Ct. 1783 (2023).
 11. The Patents Act, No. 39 of 1970, § 83(a), (c) (India).
 12. U.S. Copyright Office, *Copyright and Artificial Intelligence, Part 2: Copyrightability* 40–41 (2025).
 13. U.S. Patent & Trademark Office, *Revised Inventorship Guidance for AI-Assisted Inventions*, 90 Fed. Reg. 54,636, 54,636–37 (Nov. 28, 2025).
 14. William M. Landes & Richard A. Posner, *The Economic Structure of Intellectual Property Law* 11–24, 294–96 (2003).
 15. World Intellectual Prop. Org., *Patent Landscape Report: Generative Artificial Intelligence* (2024).
 16. World Intellectual Prop. Org., *World Intellectual Property Report 2026: Technology on the Move* (2026).

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