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THE DILEMMA OF AI GENERATED INVENTIONS: QUESTIONS CONCERNING THEIR PATENTABILITY AND HUMAN INVOLVEMENT IN CONTEMPORARY TIMES

Abstract

The distinction between human inventiveness and artificial intelligence (AI) is diminishing in the current era of rapid technological progress. Human mental processes are marked via creativity, emotional nuance, memory and advanced problem-solving, whereas AI systems are built to replicate and, in some cases, exceed these mental functions through high-level algorithms and data processing. As AI continues to develop, its capacity to autonomously generate inventions and creative works prompts significant questions regarding the nature of inventorship, the limits of patent protection and the extent of human contribution in an increasingly machine-generated environment.

This paper provides a comprehensive comparative study of the responses of major patent jurisdictions to the patentability of AI-created inventions. The primary focus is the landmark DABUS litigation which has functioned as a global test case, prompting patent offices and courts to clarify their positions on the role of AI in invention. The jurisdictions studied include the United Kingdom, Europe, Australia, South Africa, China, Japan, South Korea and Canada.

The analysis considers statutory interpretations, key judicial decisions, relevant policy documents, amicus briefs and academic literature which have influenced these legal systems. A major goal is to identify an emerging global trend: the categorical rejection of AI as an inventor. This position is supported not only by strict statutory interpretation of existing patent acts, but also by wider commitments to protecting human accountability and retaining the traditional objectives of patent law. These objectives emphasize that patents are intended to promote human inventiveness and guarantee public disclosure, rather than reward machine autonomy.

The study finds that current patent systems in most jurisdictions continue to require human inventorship, as legal accountability, ownership rights, and disclosure obligations are inherently linked to natural persons. Rather than granting legal personality to AI systems, patent law should evolve toward a flexible framework that recognizes substantial human contribution in AI-assisted inventions while preserving the patent system's foundational objectives. The study further recommends the development of internationally harmonized guidelines to clarify inventorship standards, disclosure requirements for AI use, and thresholds for determining meaningful human contribution in the inventive process.

Ultimately, this paper aims to contribute to the expanding scholarly discourse on the intersection of artificial intelligence and patent law by providing a critical evaluation of contemporary legal challenges and proposing a balanced approach that fosters innovation

while maintaining legal certainty and ethical accountability.

Key Words: Artificial Intelligence, Patent, Dabus, Thaler, Ai-Generated Inventions

Introduction

The dramatic development of Artificial Intelligence has profoundly changed the nature of innovation and inventive activities in today's society. Today, AI technology can perform complex analytical and creative tasks, which are considered the prerogatives of human intelligence. Patent law has thus been confronted with a major conceptual difference between an AI-assisted invention and an AI-generated invention. This distinction has proved indispensable in modern patent systems for determining inventorship, ownership, accountability, and entitlement to patent protection.

AI-assisted inventions v. AI-generated inventions

AI-assisted inventions involve the use of artificial intelligence as an advanced tool, with substantial human oversight and control. AI systems may contribute significantly by analyzing data, predicting trends, optimizing designs, and generating initial creative concepts. However, humans ultimately shape the direction of the invention, determine objectives, select relevant data, develop algorithms, interpret results, and validate outputs. While AI systems provide valuable analytical and generative capabilities, their contributions remain dependent on human guidance and decision-making.

AI assisted invention is rapidly emerging and becoming prevalent across numerous areas, including medicine, biotechnology, pharmaceuticals, engineering and information technology. AI systems are frequently used to detect patterns in big datasets, forecast and identify molecular connections, generate design alternatives and accelerate scientific research. However, the final inventive product usually results from considerable human refinement, evaluation and application. Consequently, most current patent regimes classify

human contributors as inventors, while AI is regarded as a sophisticated research tool.

In contrast, AI-generated inventions are produced by machine learning systems and generative AI technologies that can detect correlations autonomously, generate technical solutions, define designs and create new concepts without specific human input. In such cases, human involvement may be limited to developing or operating the AI system, rather than directly contributing to the final inventive concept.[1]

As AI technologies become more advanced, the distinction between AI-assisted and AI-generated inventions is increasingly blurred. Contemporary AI systems can learn, adapt, and produce outputs that are not entirely predictable, sometimes even eluding their developers' understanding. Consequently, accurately delineating human contribution in AI-supported innovation has become one of the most complex challenges in modern patent law.[2]

This distinction is highly relevant for patent systems worldwide, as the concept of human inventorship remains central. Traditionally, patents are viewed as the products of human intellect and labor. Inventorship determines ownership rights, entitlement to credit, accountability, and disclosure obligations. AI-generated inventions challenge these foundational assumptions, as AI systems currently lack legal personality or independent rights under existing law.[3]

A related issue concerns the ownership of AI-generated inventions. In situations with limited human participation, it remains unclear who should assume legal responsibility for patents associated with AI-created works. Questions arise regarding whether ownership should reside with the AI system's owner, the user of the technology, the organization funding the research,

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[1] Joshua Landau, Artificial Intelligence and Intellectual Property, Part III: IP Protection for AI-Assisted Inventions and Creative Works, 14 AM. U. BUS. L. REV. (2025).

[2] **AI Inventions**, WIPO Conversation – IP & Frontier Technologies (2024), https://www.wipo.int/about-ip/en/frontier_technologies/pdf/wipo-ai-inventions-factsheet.pdf.

[3] Ibid

or another party involved in the innovation process. Existing patent laws provide limited guidance on these matters.

Additionally, AI-generated inventions present challenges regarding transparency and disclosure requirements. Traditionally, patents require inventors to provide sufficient information for others to understand and replicate the invention after the patent expires. However, many AI systems operate through opaque 'black-box' processes that may not be fully understood even by their creators. This lack of transparency introduces further uncertainty concerning compliance with patent disclosure obligations and the assessment of inventive contribution.

The distinction between AI-assisted and AI-generated inventions has become central to ongoing debates in patent law. AI-generated inventions present significant challenges to conventional approaches to patent protection, particularly regarding concepts of innovation and the role of human creators, which are generally insufficient for AI-assisted inventions. The increasing integration of AI into innovative activities necessitates a reconsideration of human-centric principles within contemporary patent regimes.

Dr. Thaler’s Efforts And Dabus Inventions

The debate over AI inventorship became contentious following the filing of DABUS patent applications in the name of Dr. Stephen Thaler. These applications marked the first large-scale effort to patent an invention allegedly invented autonomously by an AI system (DABUS) without any human involvement in its conception.

Dr. Stephen Thaler, a computer scientist, has created an artificial intelligence (AI) system named DABUS (Device for the Autonomous Bootstrapping of Unified Sentience). The AI system has conceived two separate inventions without any human intervention — an improved food container that uses fractal geometry to change its shape, and a type of flashing

light device designed to attract attention during an emergency incident that can be used in search and rescue missions.

Therefore, since 2018-2019, Dr. Thaler has been filing parallel patent applications in various jurisdictions worldwide, listing an AI system, DABUS, as the inventor. He asserts that DABUS had "identified the novelty of its own idea before a natural person did" and therefore should be recognized as the inventor.

The DABUS applications sparked significant curiosity worldwide, as most patent laws require an inventor to be a human with legal rights and obligations. Patent offices and courts in different regions then had to consider whether AI systems could legally qualify as inventors under existing patent regulations.

Jurisprudential Analysis

Decision of the United Kingdom Intellectual Property Office

Thaler v. Comptroller General of Patents, Designs And Trade Marks [2021] EWCA Civ 1374

The bench with a 2:1 majority decided that an inventor must be a real person.

The reasoning behind this decision was:

- DABUS does not qualify as an "inventor" within the meaning of Section 7(3) of the Act because it is not a person.[4]
- Dr. Thaler is not entitled to apply for patents in respect of the inventions, given the premise that DABUS created them. There is no rule of law that a new intangible produced by existing tangible property is the property of the owner of the tangible property, and certainly no rule that the property contemplated by section 7(2)(b) in an invention created by a machine is owned by the owner of the machine.[5]

[4] Dennis Crouch, No Patent for Robot Inventions: UK Supreme Court Rules on AI Inventorship in *Thaler v. Comptroller-General*, PATENTLY-O (Dec. 20, 2023), https://patentlyo.com/patent/2023/12/inventions-inventorship-comptroller.html.

[5] UK Intellectual Property Office, *Guidelines for Examining Patent Applications Relating to Artificial Intelligence (AI)* (Updated Jan. 30, 2025), https://www.gov.uk/government/publications/examining-patent-

- Section 13(2) provides that firstly, the inventor must be a person and secondly, an applicant who is not the inventor must be able, at least in principle, to found an entitlement to apply for a patent in respect of the invention. Dr. Thaler did not comply with either of the requirements set out in section 13(2), and the applications were therefore deemed withdrawn.

Decision of the United States Court of Appeals for the Federal Circuit

In May of 2020, the United States Patent and Trademark Office (USPTO) denied U.S. Patent Application No. 16/524,350 (the '350 Application), titled "Devices and Methods for Attracting Enhanced Attention", for failure to "identify each inventor by his or her legal name" on the Application Data Sheet (ADS). The United States Patent and Trademark Office (PTO) [6]undertook the same analysis and concluded that the Patent Act defines "inventor" as limited to natural persons; that is, human beings.[7]

Thaler then pursued judicial review of the PTO's final decisions on his petitions before the District Court, and the District Court concluded that an "inventor" under the Patent Act must be an "individual" and the plain meaning of "individual" as used in the statute is a natural person.[8]

Thus, Thaler appealed to the Federal Circuit Court of Appeals.

The CAFC agreed that the USPTO's reading of the statute is unambiguously correct and held that- "When a statute unambiguously and directly answers the question before us, our analysis does not stray beyond the plain text." The statute's repeated references to 'individuals,' which ordinarily means "human being," unless there is some indication that

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applications-relating-to-artificial-intelligence-ai-inventions/guidelines-for-examining-patent-applications-relating-to-artificial-intelligence-ai--2.

[6]

[7] .Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022).

[8] 35 U.S.C. § 100(f) (defining "inventor" as the individual who invented the subject matter of the invention).

Congress intended a different meaning. Similarly, the use of personal pronouns and the requirement of an oath or declaration from the inventor indicate that the inventor must be a human capable of forming beliefs.[9]

Decision of the South African Patent Office

South Africa's patent office became the first one in the world to grant a patent for an invention conceived by DABUS. However, it is alleged that South African patent law does not define "inventor," and that the country lacks a substantive patent examination system.[10]

Federal Courts of Australia Decision

In Australia, Dr. Thaler's patent application was first rejected by the Australian Patent Office. [11]However, on appeal, the Federal Court of Australia held that AI could be recognized as an inventor under the Patents Act, 1990 (Australia) since nothing in the Australian Patents Act expressly bans an inventor from being a non-human AI; and that recognizing an AI as an inventor promotes technological innovation, which is consistent with the object of the Australian Patents Act. The Court held that Dr. Thaler is the owner, programmer, and operator of the AI system DABUS, who created the invention; he would become its owner without the need for an assignment.

However, shortly, the 5-judge appeal Bench of the Full Federal Court reversed this judgment. The Full Court relied on Section 15 of the Patents Act, 1990, which states that an invention may only be granted 'to a person who is an inventor'; thus, a person is to mean a natural person. Further, the Full Court held that a legal relationship is required between the actual inventor and the person entitled to a grant, which was not met as AI is not considered a legal

[9] 35 U.S.C. § 115(b)(2) (requiring a declaration that the application was made by the person entitled to the patent).

[10] .Oriakhogba, Desmond. (2021). DABUS gains territory in South Africa and Australia: Revisiting the AI-inventorship question. South African Intellectual Property Law Journal. 9. 10.47348/SAIPL/v9/a5.

[11] Thaler v. Commissioner of Patents, [2022] FCAFC 62 (Austl.)

entity.[12]

Japan Patent Office Decision

The JPO defines a patent-eligible invention as a high-level technical idea utilizing natural laws. AI inventions are generally eligible if their processing is achieved through hardware collaboration. Human contribution may occur at various stages, including model development, algorithm creation, data preprocessing, and application. Disclosure requirements are met if a person skilled in the art can reproduce the invention, even without detailed information on AI parameters or models.

These frameworks reflect global efforts to adapt traditional patent doctrines to emerging technological realities without fundamentally altering legal statutes. The goal is to preserve the principle of human inventorship while accommodating AI's expanding capabilities, a legal balancing act that increasingly reveals doctrinal fragility.

The Indian Conundrum

Indian Parliamentary Standing Committee Report

The Parliamentary Standing Committee under the Department of Commerce has recommended revisions to the current legislation to provide for the recognition of AI as an inventor. It published a report, presented to the Rajya Sabha on July 23rd, 2021, which recommended that the Department should make efforts to review the existing legislation under the Patents Act, 1970, and the Copyright Act, 1957, to incorporate emerging technologies, including AI and AI-related inventions, within their ambit. The Committee recommended that the Department adopt the approach of linking mathematical methods or algorithms to a tangible technical device or a practical application, as is being done in the

[12] DABUS Overturned: An AI Cannot Be Named as an Inventor, 71 GRUR INT'L 731, 731–37 (Aug. 2022), https://doi.org/10.1093/grurint/ikac057.

E.U. and the U.S., to facilitate patent applications.

“8.3 Presently, The Indian Patents Act, 1970 as well as the Copyright Act, 1957 are not well equipped to facilitate inventorship, authorship and ownership by Artificial Intelligence. As per Section 3(k) of the Indian Patent Act,1970, a mathematical or a business method or a computer programme or algorithms run by Artificial Intelligence are not patentable. Further, the condition to have a human inventor for innovating computer related inventions (innovations by AI and machine learning) hinders the patenting of AI induced innovations in India. Therefore, there is a need to review the provisions of both the legislations on a priority basis.

8.4 During the deliberations with relevant stakeholders, the Committee was informed that the protection of both AI-generated works and AI solutions should be permitted under patent laws of India as it would incentivize innovation and R&D thereby significantly contributing to creativity and economic growth of the country. It was informed that rendering protection to works generated by AI either autonomously or with the assistance and inputs of a human being would incentivize and encourage the creator of the AI which in turn would further encourage creativity and development of more AI solutions.”[13]

Indian Patent Office’s Detailed Categorical Refusal

The Indian Patent Office noted that similar applications naming DABUS as inventor have been rejected in multiple jurisdictions, including the UK, US, Germany, Japan, and before the EPO.

From a doctrinal perspective, the refusal reaffirms the importance of the human role in the patent law. The statutory framework is constructed around the assumption that inventions are products of human intellectual effort, assessed against the standard of a "person skilled in the

[13] .Parliamentary Standing Committee Report - Review of the Intellectual Property Rights Regime in India dated 23.07.2021

art". The decision implicitly confirms that this human-centric model remains intact, despite the increasing role of AI in the inventive process. At the same time, it exposes the limitations of the current framework. The Office acknowledges, though indirectly, that policy talks on AI-generated inventions are ongoing, but it declines to engage with them in the absence of legislative reform.

The Patent Office held that, since DABUS lacks the capacity to bear legal rights, duties, or liabilities, it cannot qualify as a legal person and, by extension, cannot be recognized under Indian law as an inventor. Interestingly, this insistence on human inventorship has not gone unchallenged in policy circles: the 161st Rajya Sabha Committee Report, for instance, flagged this very requirement as problematic in the context of AI-produced outputs, echoing arguments similar to those of Dr. Thaler.

This reasoning is reinforced by the statutory structure of the Patents Act, which distinguishes clearly between “person,” “applicant,” and “true and first inventor.” While the definition of “person” may include certain non-natural entities for the purpose of applying for patents, inventorship is implicitly confined to natural persons. Sections 6, 7, and 10 of the Act require an inventor to be capable of assigning rights, executing declarations, and being represented posthumously, legal attributes that only humans possess. The Patent Office emphasized that these provisions are not simply procedural but fundamental to the patent system, as they establish the chain of entitlement from inventor to applicant. Since DABUS cannot execute assignments or provide legally valid declarations, the applicant could not establish a valid “proof of right’’, rendering the application defective.

A critical aspect of the reasoning concerns the doctrine of “proof of right.” The applicant argued that ownership of DABUS, its source code, and the hardware on which it operates should suffice to establish entitlement. The Office observed that Section 7(2) requires that the applicant derive title from the inventor; where the purported inventor lacks legal recognition,

no valid chain of title can arise. This reasoning underscores the foundational principle that patent rights flow from inventorship and that inventorship itself must be legally cognizable. The inability of DABUS to hold or transfer rights therefore, renders the application defective at a structural level.

The Office also addressed the applicant's reliance on international instruments, particularly the declaration under PCT Rule 4.17(ii).

The Office observed that such declarations cannot override the mandatory requirements of domestic law. It is to be noted that the policy recommendations, including those emerging from the 161st Rajya Sabha Committee Report, are awaiting statutory implementation.

On the substantive merits, the Office also found that the claimed invention lacked an inventive step, thereby failing to meet the requirement under Section 2(1)(j). While this finding is independent of the inventorship issue, it reinforces the extensive approach of the decision, which found the application deficient both procedurally and substantively. The inclusion of this analysis shows that even if the hurdle of inventorship were resolved differently, the application would still face conventional patentability challenges.

Patenting Standards, Suggestions, And The Way Forward

The aim of the present paper was to critically analyze the legal, jurisprudential, and policy issues of AI-generated and AI-assisted inventions in the context of the present patent-related legislation.

An important finding is that the modern global patent system remains broadly human-centered, both in its structure and in how it is interpreted. The existing patent laws in countries such as the USA, UK, EU, Australia, Japan, China, South Korea, Canada, and India still recognize only natural persons as patent inventors. Inventorship has historically been interpreted by courts and patent offices as a legal authority with rights of property ownership,

responsibility, and disclosure obligations – all of which can currently be held only by living human persons with legal personality. In spite of recent advancements in AI technologies, legal frameworks remain unconvinced of the potential for AI inventiveness.

Dr. Stephen Thaler's patent applications listing the DABUS AI system as the inventor resulted in judicial and administrative discussions that across multiple jurisdictions. In all of these jurisdictions, from the United States to the United Kingdom to the European Union and Australia, the courts and/or patent offices have uniformly refused to recognize AI inventorship, basing their decisions on the patent statutes in each nation, which limit inventorship to natural persons. The latter, however, granted an AI a patent as the inventor, but the South African patent examination system meant that the decision lacked much jurisprudential value. Thus, the DABUS dispute brought to light not only the technological aspects of AI-produced innovations but also the restrictions of current patent systems in supporting complex innovations created by autonomous machines.

Another important conclusion reached by the study is that the concept of "significant human contribution' has become a key legal doctrine in the field of AI-assisted inventions. As AI systems are not considered inventors, patent systems are increasingly turning their attention to the question of meaningful human intellectual involvement in the invention process. Typically, human involvement in the selection of objectives, design of algorithms, selection of datasets, interpretation of AI-produced products, validation of technical solutions and finalization of inventions is considered to be key to patentability. It shows that modern patent systems seek to maintain the human touch and responsibility by emphasizing the need for significant human involvement when AI systems are used for extensive analysis or generation.

But at the same time, the research found that there was still great uncertainty about why meaningful human involvement must reach a threshold to secure inventorship. Each

jurisdiction has different legal rules regarding inventive contribution, technical effect, disclosure requirements, and patent eligibility. There is no widely accepted legal guideline for when human involvement is so limited that it is not considered 'involvement'; that is, when there is no longer a connection to the invention for invention purposes. This doctrinal uncertainty raises practical challenges for inventors, corporations, research institutions, and patent offices in assessing AI-assisted inventions under current law.

In the future, the law of patents will thus need to be balanced between fostering technological advancement and maintaining the key aims of intellectual property protection. Total denial of AI-generated innovation could slow scientific progress, and unlimited inventorship by AI could raise significant legal, ethical, and economic issues. A balanced solution that acknowledges the role human beings can play and is mindful of technology seems to be the most sensible way forward.

In conclusion, the intersection of Artificial Intelligence and Patent Law is not just another legal puzzle, but a wider paradigm shift in understanding innovation, creativity, and the role of human involvement in technological development. In the future, patent systems will need to evolve slowly and carefully to remain relevant, fair, and effective amid developments in AI.

Bibliography

I. Books

1. Ryan Abbott, The Reasonable Robot: Artificial Intelligence and the Law (Cambridge University Press 2020).
2. N.S. Gopalakrishnan & T.G. Agitha, Principles of Intellectual Property (Eastern Book Company 2014).
3. V.K. Ahuja, Law Relating to Intellectual Property Rights (LexisNexis 2017).
4. P. Narayanan, Patent Law (Eastern Law House 2006).

5. B.L. Wadhera, Law Relating to Patents, Trademarks, Copyright, Designs and Geographical Indications (Universal Law Publishing 2011).
6. Lionel Bently & Brad Sherman, Intellectual Property Law (Oxford University Press 2014).
7. Cornish, Llewelyn & Aplin, Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights (Sweet & Maxwell 2019).
8. W.R. Cornish, Cases and Materials on Intellectual Property (Sweet & Maxwell 2016).
9. Ananth Padmanabhan, Intellectual Property Rights: Infringement and Remedies (LexisNexis 2012).
10. Peter Drahos, A Philosophy of Intellectual Property (Dartmouth Publishing 1996).
11. Daniel Gervais, The TRIPS Agreement: Drafting History and Analysis (Sweet & Maxwell 2012).
12. Jay Erstling, Patent Law Sourcebook (Bloomberg Law 2020).
13. Jorge L. Contreras & Madhavi Sunder, Intellectual Property Law and Policy (Cambridge University Press 2023).
14. Christopher A. Cotropia, Patent Law in Global Perspective (Oxford University Press 2020).
15. Stuart Russell & Peter Norvig, Artificial Intelligence: A Modern Approach (Pearson Education 2021).
16. Richard Susskind, Tomorrow's Lawyers and Artificial Intelligence (Oxford University Press 2019).
17. Pamela Samuelson, AI and Intellectual Property: Challenges and Opportunities (MIT Press 2021).

18. Thomas Scassa, Intellectual Property and Emerging Technologies (Edward Elgar Publishing 2020).
19. Ian Goodfellow, Yoshua Bengio & Aaron Courville, Deep Learning (MIT Press 2016).
20. Ashish Bharadwaj, Vishwas H. Devaiah & Indranath Gupta, Multi-dimensional Approaches Towards New Technology (Springer 2018).

Ii. Journal Articles

1. "Artificial Intelligence and Patentability in India: Emerging Legal Challenges," 12 Indian Journal of Law and Technology 45 (2021).
2. "AI Generated Inventions and the Question of Inventorship," 9 National Law University Law Review 56 (2020).
3. "Patenting Artificial Intelligence: Legal and Ethical Issues," 18 Journal of Intellectual Property Rights 210 (2022).
4. "Human Inventorship in the Era of Artificial Intelligence," 24 Journal of World Intellectual Property 133 (2021).
5. "Artificial Intelligence and the Future of Patent Law," 37 Berkeley Technology Law Journal 115 (2022).
6. "The DABUS Case and Global Patent Jurisprudence," 14 Indian Journal of Intellectual Property Law 67 (2021).
7. "AI as Inventor: A Comparative Analysis," 32 Harvard Journal of Law & Technology 201 (2020).
8. "Patent Law and Machine Creativity," 49 International Review of Intellectual Property and Competition Law 1 (2018).

9. “Inventorship and Ownership in AI-Assisted Innovation,” 8 Journal of Intellectual Property Studies 78 (2022).
10. “Artificial Intelligence and Non-Obviousness Standards,” 56 IDEA: The Law Review of the Franklin Pierce Center 233 (2021).
11. “AI, Innovation and Patent Disclosure Requirements,” 19 Yale Journal of Law and Technology 90 (2020).
12. “Legal Personality and Artificial Intelligence Systems,” 11 Oxford Journal of Legal Studies 341 (2021).
13. “The Technical Effect Doctrine in European Patent Law,” 15 European Intellectual Property Review 122 (2019).
14. “Challenges of Patent Protection for AI Generated Inventions,” 7 Journal of Indian Law and Society 88 (2020).
15. “Artificial Intelligence and the Changing Meaning of Inventive Step,” 10 NUJS Law Review 177 (2021).
16. “Ethical Concerns in AI Patent Protection,” 5 Asian Journal of Comparative Law 201 (2022).
17. “Transparency and Accountability in AI Innovation,” 14 Journal of Technology Law & Policy 55 (2021).
18. “Comparative Jurisprudence on AI Inventorship,” 20 Journal of Intellectual Property Law and Practice 140 (2022).
19. “Patent Monopolies and Artificial Intelligence,” 27 Columbia Science and Technology Law Review 300 (2021).
20. “AI Governance and Intellectual Property Rights,” 9 International Journal of Legal Innovation 66 (2023).

III. CASE LAWS

1. Thaler v. Vidal, 43 F.4th 1207 (Fed. Cir. 2022).
2. Thaler v. Comptroller-General of Patents, [2023] UKSC 49.
3. Commissioner of Patents v. Thaler, [2022] FCAFC 62.
4. Thaler v. Commissioner of Patents, [2021] FCA 879.

IV. STATUTES AND INTERNATIONAL INSTRUMENTS

1. The Patents Act, No. 39 of 1970 (India).
2. Patents Rules, 2003 (India).
3. Patent Act, 35 U.S.C. §§ 1–390 (United States).
4. Patents Act, 1977 (United Kingdom).
5. European Patent Convention, 1973.
6. TRIPS Agreement, 1994.
7. Paris Convention for the Protection of Industrial Property, 1883.
8. Berne Convention for the Protection of Literary and Artistic Works, 1886.
9. WIPO Convention, 1967.
10. Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure, 1977.
11. Patent Cooperation Treaty (PCT), 1970.
12. Universal Declaration of Human Rights, 1948.
13. Indian Information Technology Act, 2000.
14. Digital Personal Data Protection Act, 2023 (India).
15. Charter of Fundamental Rights of the European Union, 2000.

V. GOVERNMENT REPORTS AND POLICY PAPERS

1. NITI Aayog, National Strategy for Artificial Intelligence #AIForAll (2018).

2. Parliamentary Standing Committee Report - Review of the Intellectual Property Rights Regime in India dated 23.07.2021
3. World Intellectual Property Organization, WIPO Technology Trends: Artificial Intelligence (2019).
4. United States Patent and Trademark Office, Inventorship Guidance for AI-Assisted Inventions (2024).
5. European Parliament, Artificial Intelligence and Intellectual Property Rights (2020).
6. European Commission, White Paper on Artificial Intelligence (2020).
7. Government of India, Ministry of Electronics and Information Technology, National Program on Artificial Intelligence (2021).
8. OECD, Artificial Intelligence in Society (2019).
9. UNESCO, Recommendation on the Ethics of Artificial Intelligence (2021).
10. UK Intellectual Property Office, Artificial Intelligence and Intellectual Property Policy Paper (2021).
11. Australian Government, AI Action Plan (2021).
12. Japan Patent Office, AI and Intellectual Property Report (2020).
13. CNIPA, China Artificial Intelligence Development Strategy (2021).
14. KIPO, Artificial Intelligence and Patent Examination Guidelines (2022).
15. Law Commission of India, Innovation and Intellectual Property Report (2017).
16. World Economic Forum, Global Future Council on Artificial Intelligence (2022).

VI. WEB SOURCES / WEBLIOGRAPHY

1. World Intellectual Property Organization (WIPO)
2. United States Patent and Trademark Office (USPTO)
3. European Patent Office (EPO)
4. UK Intellectual Property Office (UKIPO)
5. Indian Patent Office
6. World Trade Organization (WTO)
7. NITI Aayog Official Website
8. Organisation for Economic Co-operation and Development (OECD)
9. European Commission – Artificial Intelligence Policy
10. UNESCO Artificial Intelligence Ethics Portal