

AI-Generated Inventions and the Determination of Inventorship in Patent Law

Jing Li*

School of Law, China Jiliang University, Hangzhou, Zhejiang, China

**Corresponding Author*

Abstract: Generative artificial intelligence now yields technical solutions that satisfy the formal requirements of patent law, yet the governing rules still define an inventor exclusively as a natural person. A gap therefore opens between subject-matter eligibility and the factual distribution of creative labour. Widening the meaning of the term inventor cannot close that gap; only a reconstruction of the standards applied at examination and at the stage of rights allocation can. The DABUS applications, pursued across several jurisdictions, demonstrate that declining to recognise machine inventorship is workable in principle but incomplete as a regime: such a decline leaves two questions open. It does not say who holds the rights when no human being contributed, and it does not say how much human involvement is required before a claim to inventorship becomes sustainable. Taking the creative-contribution standard in Article 14 of the Implementing Regulations for Patent Law as the interpretive starting point, this paper argues that machines are excluded from inventorship for want of legal capacity and not for want of contribution, and that the allocation question should therefore be addressed through the contribution standard directly rather than through inquiries into machine personhood. Two consequences follow. The benchmark for inventive step is adjusted according to how far a solution depends on training data and generic models, and the interests of data providers, model developers and prompt users are separated according to what each actually contributed to the generation process.

Keywords: Artificial Intelligence; AI-Generated Inventions; Inventorship; Creative Contribution; Inventive Step; Allocation of Rights

1. Introduction

Artificial intelligence entered the patent system as an assistive tool. It sorted documents, retrieved prior art and drafted passages, but the person who filed the application still supplied every element of inventive work. Generative models differ on a point that matters to this inquiry. They are not instructed to execute a predetermined procedure; they infer regularities from training material and produce content that no one specified. Where an assistive tool extends the hand of the inventor, a generative model sometimes supplies what the hand would have supplied.

Patent law defines inventorship in terms of contribution. Article 14 of the Implementing Regulations for the Patent Law of the People's Republic of China provides that an inventor is a person who has made a creative contribution to the substantive features of an invention. The ordinary meaning of the word person is a natural person. On that reading a machine cannot be named as an inventor, no matter how much it produced, and the consequence is immediate: where a solution originates mainly from machine operation, the rights in it must pass to people who took no part in the inventive step.

The difficulty is not that this outcome is odd. It is that the outcome has no secure justification. Three responses are available in the literature. The first treats the machine as an instrument and declines to alter the rules. The second looks to legal personhood by analogy with corporations. The third reads the word person broadly enough to bring developers and users inside it. Each response answers the question who may be named, and none answers the question who owns what. That distribution has to be settled, and it cannot be settled by answering a different question first.

This paper takes the view that the two enquiries must be separated, and that the second depends on a standard already present in the statute. A machine is not an inventor because it lacks the

capacity to make a statement of intention in legal proceedings and to bear the consequences of a false one. That is a statement about capacity, not about output, and capacity does not vary with the sophistication of the model. Once the exclusion is grounded this way, the allocation of rights can be reasoned directly from the creative-contribution standard. No new legal concept is required, and Article 14 requires no amendment; the standard is simply carried from the signature stage to the stage of allocation.

The argument proceeds in five steps. The next section describes how several jurisdictions have actually approached the question, and identifies what their convergence leaves unresolved. The third section isolates three practical difficulties. The fourth examines the subject, the object and the rights, in turn. The fifth sets out proposals concerning legislation, examination, liability and international coordination.

2. Current Regulatory Approaches to Inventorship in AI-Generated Inventions

2.1 The DABUS Applications as a Global Legal Experiment

In 2018 Stephen L. Thaler filed applications in the United States Patent and Trademark Office, the European Patent Office and other offices, naming DABUS, an artificial intelligence system developed by his team, as the sole inventor. He submitted a specification describing inventions produced by the machine in order to demonstrate that they were not the product of human intellectual labour. The filings removed the question from the realm of doctrinal speculation and forced patent offices and courts to address it [1]. Scholarship on the episode has traced the same shift, observing that the inventor provision ceased to be a formal requirement and became a substantive one [2].

2.2 Divergent Positions in the United States, Europe and South Africa

The United States took the most direct route. In *Thaler v. Vidal* the Federal Circuit held that 35 U.S.C. 115 requires an inventor to be named and that Congress did not intend the requirement to extend to machines, a conclusion reinforced by the provisions on execution and assignment, which presuppose legal capacity. The same court treated the term inventor as denoting the person who conceives, and a machine conceives nothing. The decision nonetheless left room for

AI-assisted inventions, provided a natural person has completed the relevant conception [3].

The European Patent Office rests on Article 81 of the European Patent Convention and Rule 19 of the Implementing Regulations, both of which define the inventor as a natural person. Its reasoning goes further than the American. Inventorship is not merely a condition of application; it carries rights and duties, including the right to be named and the liability that follows from a wrongful attribution. A machine can hold neither the benefit nor the burden, and the consequence is disqualification [4].

South Africa followed a third path. In 2021 the South African patent office accepted an application naming DABUS, on the ground that registration in that jurisdiction does not examine the identity of the inventor. The registration was withdrawn in 2023 because the applicant had not supplied an invention statement made by a natural person [5]. A regime that tolerates a machine on the face of the record withdraws the tolerance as soon as the substance of the invention has to be accounted for by a person.

The three outcomes are not redundant. The United States asked whether the record is accurate; the European Patent Office asked what duties inventorship carries; South Africa asked whether the application meets a minimum content requirement. Each question points to the same conclusion: the provision on inventorship is not principally concerned with whether a machine may be entered in a field, but with how the acts of human beings are to be identified [6].

2.3 Intermediate Positions in China

China has not enacted a specific rule, but a pattern has emerged from examination practice, policy documents and scholarship. The Patent Office refuses to recognise an artificial intelligence as an inventor while leaving the patentability of machine-produced solutions undisturbed. The Guidelines for the Handling of Patent Applications Involving Artificial Intelligence (Trial), issued at the end of 2024, divide such applications into those in which a natural person has made a creative contribution to the substantive features and those in which no natural person has made such a contribution. The division is significant, because it treats the eligibility of a solution and the validity of an application as two separate enquiries [7].

The 2025 amendment to the Patent Examination Guidelines addresses the same field from another

direction. The decision was promulgated on 10 November 2025 as Order No. 84 of the National Intellectual Property Administration and entered into force on 1 January 2026. New provisions examine, in section six of chapter nine of part two, applications involving artificial intelligence and big data, and impose requirements on how the specification must describe models and training. Elsewhere the Guidelines confirm that an inventor must be a natural person and that neither an organisation nor an artificial intelligence may be entered as such [8].

Academic proposals divide into two groups. The first borrows from corporations and would give an artificial intelligence a legal standing of its own [9]. The second insists on human inventorship while reading the term person broadly enough to include developers and users [10]. The two groups agree on little except the conclusion that some person must be identified, and they differ on whether that person is found by creating a new subject or by interpreting an existing one.

3. Practical Difficulties in Determining Inventorship

3.1 The Absence of Legal Capacity

Private law rests on a dichotomy between persons and things. Natural persons and legal persons are subjects, holding rights and bearing duties; everything else is an object. Inventorship sits on the side of subjects, because the inventor holds a personal interest in being named and, more importantly, is the point at which the right to apply for a patent and the patent itself are initially acquired.

An artificial intelligence is an assembly of algorithms and data. However high its capability, it holds no legal capacity, and treating it as an inventor would set loose a chain of questions about who exercises the patent right and who answers for infringement. To deny it inventorship is defensible. What is harder to defend is the further step, which routes the rights in a machine-produced solution toward people who contributed nothing to its inventive features [11].

3.2 Challenges under the Patentability Requirements

Setting the subject aside does not dispose of the application, because the substantive requirements still have to be met. The three of

them do not fail together, and the order in which they are usually discussed is not the order in which they cause difficulty.

Novelty presents the first difficulty. The capacity of these models to draw on material across technical fields enlarges the body of relevant prior art to a degree that classification-based retrieval is not designed to handle, and an examiner may not locate the documents that would defeat the claim. The strain this places on the retrieval of the prior art is one of the central difficulties these systems create [12].

Inventive step presents the second. The person skilled in the art is a statutory construct, and the construct rests on two assumptions: that the skilled person knows all the prior art in the field, and that the skilled person cannot invent. The first assumption has become doubtful. These models draw associations across fields, and the body of prior art that bears on their output exceeds what a human technician would ordinarily exhaust. The doctrinal response has been to redefine the person skilled in the art as one who uses conventional artificial intelligence tools [13].

Industrial applicability presents the third. Models produce solutions that are coherent in theory and impractical in fact. In the pharmaceutical field in particular, any compound they propose must be validated by human experimentation that the model cannot perform. Models also produce outputs that read as plausible and cannot be implemented at all, and the application cannot be met simply by describing the result. The specification must instead carry enough of the generating conditions that a person skilled in the art can work the solution [14].

A fourth difficulty concerns consistency. Two examiners may reach different conclusions on the same application, and the rapid iteration of the technology means that any benchmark used to reach those conclusions is itself in motion. The problem is not that the standard should be fixed, since no benchmark of this kind is. It is that the ground of decision should be capable of being stated, which a benchmark that moves with each model release is not [15].

3.3 Allocation of Rights among Several Participants

Three kinds of participant are ordinarily involved: the provider of training data, the developer of the model, and the user who

supplies prompts and screens the output. Their modes of investment differ, and so does the risk each bears. The rules on service inventions and joint inventions do not transfer to them without adjustment. A developer may have sold or licensed the model long before any particular solution came into being; a user may have entered nothing more than a general instruction, and whether that amounts to the creative contribution Article 14 requires is open to doubt; the contribution of a data provider is more remote still. In the absence of any rule for weighing these contributions, the same application may yield different signatures on different desks, and disputes over ownership will impede the commercialisation of the technology [16].

4. Theoretical Analysis

4.1 Incentive Theory and the Functionalist Conception of Law

The question cannot be addressed without returning to what the patent system is for. Its purpose, as the first article of the Patent Law states, is to encourage invention and the application of inventions. That purpose is instrumental. It concerns not who performed the inventive act but whether the result deserves protection; and if a solution answers a technical problem, produces a beneficial effect and has cost real effort to produce, granting a patent directs resources towards that field [17].

The functionalist view asks what a rule should do in the circumstances rather than what its terms have always meant. Its function here remains unchanged, and if the test of the system's purpose is met, the design of the rule should follow [18]. Together these two views locate the question. The instrumental account answers why a solution deserves protection; the question of who is the inventor answers who may claim it. The two do not coincide in the case of machine-produced solutions, and treating them as a single question leaves the analysis circling a subject that the system has no need to create.

4.2 The Subject Dimension: From Instrumentalism to Legal Fiction

For most of the twentieth century the machine was treated as an instrument, and its output was indistinguishable in law from the output of a pen or a calculator. Generative models no longer fit that description, since they infer from unordered

material and produce configurations that were not specified beforehand. The instrumental account is therefore an incomplete description of what the machine does to the inventive process. The alternative is to treat the artificial intelligence as a quasi-subject by analogy with the corporation [9]. This works as a matter of analysis. It does not answer the question that has to be answered, because once a quasi-subject has been created, the next task is to determine what rights it holds and who exercises them, and the answer to that task is composed of natural persons. The device is best understood as a technique for locating human contributions, not as a rule of distribution.

The more direct course is to apply the standard of creative contribution to the question of ownership, and to treat the machine as a fact in the generation of the invention rather than as a subject of rights. Article 14 already defines inventorship as a state of fact, and that definition applies to human beings and to machines alike. A machine cannot become a natural person by satisfying it, but the contributions of the several natural persons involved can plainly be distinguished by reference to it [11].

4.3 The Object Dimension: Revised Standards for Patentability

The requirements of novelty, inventive step and industrial applicability were framed for a process in which a person conceives and a person implements. Each requires adjustment, and the adjustments should be made at different levels rather than through a single reformulated benchmark.

On novelty, the difficulty is volume. If a model produces many solutions that differ from the prior art only marginally, the appropriate question is not whether a difference in form exists but whether the technical problem solved and the effect achieved differ in substance. Retrieval assisted by these models is at once a necessity here, since a human examiner cannot cover the field unaided, and the most effective answer to the difficulty of coverage [12].

On inventive step, the redefinition of the person skilled in the art should be applied selectively. A benchmark that incorporates the use of conventional artificial intelligence tools has the defect that the capability of those tools is changing, so that a conclusion would vary with the state of the technology at the filing date. A workable arrangement keeps the conventional

benchmark for solutions in which the applicant invested in the preparation of data, the tuning of parameters or the adaptation of the model to an engineering context, and evaluates the features that resulted from that investment, while raising the requirement for solutions that are mainly the output of a general model unmodified. The examination effort then corresponds to the contribution made, which is what Article 14 already asks [13].

On industrial applicability, the requirement of implementability should be pressed rather than relaxed. What matters is whether a person skilled in the art can work the solution from what the specification records, and not whether the specification describes every internal step of a model. The same standard governs the question whether a machine-generated solution counts as prior art: a solution whose generating conditions are undisclosed cannot be invoked against a later applicant [14].

The weight of that requirement is not the same in every field, and the difference should be stated rather than assumed. In drug discovery and materials screening the validity of a solution depends on experimental confirmation that neither the applicant nor the examiner can perform from the specification alone, so the expectation placed on the disclosure is correspondingly higher [17].

Where the subject matter is the architecture of the model itself the question shifts. What requires attention is then whether the scope of the claims is supported by the description, since the architecture is not something the specification can describe at the level of detail the disclosure rules assume [18].

There is also a practical answer to part of this, and it is easy to overlook because it is already happening. Retrieval and comparison of the prior art are now tasks that these models perform competently, and they have been incorporated into examination practice accordingly. That development is material to the second difficulty rather than incidental to it, because a uniform standard is attainable only once the coverage of the prior art is uniform [19].

4.4 The Rights Dimension: A Contribution-Based Allocation Model

The model proposed here takes the language of Article 14 as its core. Where several parties have contributed to a solution, whether each obtains rights, and in what proportion, follows from the

creative contribution that party made to the substantive features, the machine notwithstanding. The three contributions are best identified separately.

The data provider invests indirectly. Training data is not a technical solution; its value lies in enabling the model to produce a particular result. Under existing law no claim to that capability lies open to the provider. Yet where the substantive features of a solution derive directly from a particular dataset, the connection between the provider's investment and the solution is not remote, and a rule that denies it entirely discourages further sharing. What can be granted, while data rights remain unsettled in Chinese law, is a claim to reasonable remuneration in cases of this kind, rather than a patent [20].

The developer contributes general capability, and a considerable distance separates that capability from any particular solution. To vest the patent in the developer would make that person entitled to every invention produced by the model, which is neither workable nor consistent with the principle that protection is exchanged for disclosure. The better arrangement is to look at the specific solution: a developer whose work on the architecture or the algorithm contributed to the solution that emerged may obtain rights in that solution, while one who supplied a model and took no part in the process of producing it acquires nothing [21].

The user contributes in two ways, by stating the requirement and by screening what comes back. The specific requirement commonly determines the purpose and the essential parameters of the solution, and screening is an exercise of independent judgement. A user who enters only a general instruction, and whose screening does not exclude what is plainly infeasible, has not made a creative contribution and cannot be an inventor, though an implied licence to practise the resulting invention would follow.

Read together, the three rules apply a single standard. Whether a party obtains rights follows from its contribution to the substantive features, and the boundary of that contribution is set by what the party did in the course of generation. Model providers, users and data providers are all within the standard, and no order of priority among them need be assumed. No separate procedure is required for the present. The rules on service inventions, joint inventions and the transfer of technological achievements supply an

analogy for the prospective arrangement of interests by contract, while the share attributable to each party in the features of the solution can be ascertained after the fact by reference to Article 14 [22].

5. Reform Proposals

5.1 A Phased Legislative Approach

Legislation advanced in stages suits a field in which practice has not settled. The order of steps follows the method ordinarily used where a new technology presses on an existing rule: the rule that is under strain is identified first, and only then is it considered whether the rule should be replaced [19]. Three moves are available here, in an order that postpones the most difficult until the evidence is in.

The first is to state how the existing rules apply. Judicial interpretations and guiding cases can set out how Article 14 operates where a machine has participated, and in particular how the two categories in the 2024 Guidelines differ from one another as regards signature and ownership. Nothing in the text is changed; what is supplied is the degree of determinacy that the rules require [8].

The second is to add provisions of substance. Dedicated clauses in the Patent Law or its Implementing Regulations should address the three central questions of patentability, ownership and liability. The experience of other jurisdictions suggests that such clauses are best drawn along two lines, the eligibility of the solution and the adequacy of the application, and that they need not touch the status of the subject at all [6].

The third is to complete the surrounding rules, providing for examination, for the confirmation of validity and for the lapse of rights in relation to machine-produced inventions. The aim is not to create a new right but to ensure that the existing conditions, standards and remedies are workable for this form of subject matter [15].

5.2 Adapting the Examination Framework

The examination of these applications can no longer be conducted by the procedure designed for human inventors, and a framework matched to the stage of technical development is required. The standard applied should vary with the relation between technical maturity and the height of invention sought. For solutions at an exploratory stage, where the technical field is

unsettled, the burden of the inventive step should be reduced, so that exploration is not inhibited; for solutions that have reached scale, the requirement should be raised, so that repetition of a low level of invention does not occupy the public domain. It should be noted that reducing the burden of the inventive step is not the same as dispensing with it. What changes is the object of the enquiry: the question is no longer whether the solution markedly exceeds the prior art, but what the applicant actually contributed to it, which is the question Article 14 already contains. The procedure may be arranged in three stages. At the first, the origin of the technology is examined, including the compliance of the training data and the lawfulness of the algorithm, so that the risk of infringement is addressed at the source. At the second, substantive examination is conducted against the divided benchmark set out in Section 4.3. At the third, granted rights are monitored, and a claim whose scope has become unsuitable in consequence of later technical development may be adjusted by proceedings for invalidation [23].

Examination resources require attention as well. Examiners with command of both patent law and the relevant technology are in short supply, and the difficulty cannot be addressed by training alone. Automated retrieval and comparison are now within reach, and their use is material to the consistency of outcomes rather than an optional addition to it [24].

5.3 A Tiered Liability Regime

A machine cannot bear liability, and the consequences of an infringement must be traced to the human participants. Those participants occupy positions of differing proximity to the harm, and the tiers should reflect that rather than impose a uniform obligation.

The first tier is the designer of the algorithm. Where a designer has introduced a bias into training, or has failed to take reasonable measures to avoid a risk of which it was aware, that designer should answer for the resulting consequences. The test here concerns the reasonableness of the design process, not the occurrence of the harm. To require a designer to foresee every infringing output would transfer the risk of technical innovation onto the designer and would discourage the development of the technology [25].

The second tier comprises developers and providers. Where the duty of reasonable care has

not been discharged, whether because training data were not processed lawfully or because plainly infeasible output was not filtered, liability should follow within the corresponding limits. The test may borrow the structure of the duty of care in existing law, namely whether a legal duty existed and whether reasonable care was taken, rather than whether infringement resulted [26].

The third tier is the user. A user who frames instructions that produce a solution plainly encroaching on the patent of another or on the public interest, and who applies for it knowing or having reason to know that the result will cause harm to another's rights, should bear responsibility as the direct actor [27]. The three tiers share one standard, in which duty is matched to fault: the designer is measured against the reasonableness of the design, the provider against the duty of care, and the user against what the user knew. This avoids both a void of responsibility and a demand that any party exercise a form of care beyond its capacity [28].

5.4 International Coordination

Solutions of this kind cross borders, and the same invention may meet different outcomes where the provision on inventorship differs. The resulting fragmentation discourages the international movement of technology and the cooperation on which research depends.

A realistic step within the framework of the World Intellectual Property Organization would be technical coordination on three matters: the formulation of the requirement of inventorship, the standard applied to the patentability of machine-generated solutions, and the method by which ownership is ascertained. Such coordination need not produce agreement on substantive rules. It would suffice to agree on the technical content of applications and on the ground of decision, so that the same invention attracts comparable treatment across jurisdictions [28].

Information should move in the same direction. A searchable database of machine-generated patents and technical solutions, together with a mechanism for sharing patent information, would make the lawful origin of training data and the conditions of generation into matters of record, supplying the examination authorities with a basis for comparison while serving transparency [20].

6. Conclusion

The difficulty that machine-generated inventions raise for patent law is ultimately a question about distribution. A machine cannot be an inventor, and that conclusion follows from the requirement of legal capacity rather than from any judgment about the quantity of what the machine has produced. But the requirement of capacity disposes of a formal question only. It does not say how rights are to be shared where a solution has been produced by a machine together with several natural persons.

Article 14 supplies the answer in the form in which it already exists. The creative-contribution standard does not vary according to whether the contribution is made by a person, and it is this feature that allows it to be carried from signature to ownership. Three practical gaps then close together. The absence of rights where no human being has contributed is addressed by allowing reasonable remuneration to data providers and to developers who have contributed to a specific solution; the weight of each human contribution is settled by making the standard more specific; and the redefinition of inventive step aligns the intensity of examination with the contribution actually made. The choice presented to the system is not whether a machine may hold rights, but whether the contributions of human beings can be identified.

References

- [1] Zhang H, Wang H. On the Determination of Inventorship for AI-Generated Inventions: A Comparative Study. *International Economic Law Journal*, 2024(2): 65-78.
- [2] Liu Y, Wei Y. Patentability and Ownership of Technical Solutions Generated by Artificial Intelligence. *Journal of Xiangtan University (Philosophy and Social Sciences)*, 2019, 43(4): 84-90.
- [3] Liu Y, Ren Z. Inventorship in the Age of Artificial Intelligence, with Comments on the DABUS Cases. *Journal of Wuling*, 2022, 47(2): 53-65.
- [4] Long X, Xu J, Zhang S. A Study of the Institutional Treatment of the Subject of AI-Generated Patents. *China Invention and Patent*, 2025, 22(7): 81-88.
- [5] Ji D. Theoretical Regression and Institutional Exploration in Patent Protection for AI-Generated Inventions:

- The DABUS Case. *Science and Technology Progress and Policy*, 2022, 39(18): 121-129.
- [6] Zhan Y. Patentability and Ownership of Inventions Generated by Artificial Intelligence. *Science of Law (Journal of Northwest University of Political Science and Law)*, 2026(1): 62-74.
- [7] Feng X, Hao M. A Study of the Patent Protection System for AI-Generated Inventions. *Journal of Hunan University (Social Sciences)*, 2023, 37(2): 143-152.
- [8] National Intellectual Property Administration. Decision on the Amendment of the Patent Examination Guidelines. Order No. 84, 2025-11-10.
- [9] Liu Q, Xu P. Legal Personhood of Artificial Intelligence and the Ownership of Its Creations: A Fictionalist Approach. *Journal of Wuling*, 2018, 43(2): 73-80.
- [10] Li F. An Approach to the Examination of the Subject Matter of Algorithmic Inventions. *Nanhai Law Journal*, 2021, 5(6): 103-113.
- [11] Li Q. Practical Standards for Determining the Inventive Step of AI-Generated Inventions. *Nanhai Law Journal*, 2023, 7(1): 100-112.
- [12] Zhang S. Challenges of Generative Artificial Intelligence to the Prior Art Rules in Patent Law and Responses. *Intellectual Property*, 2025(8): 92-108.
- [13] Hu G, Wang Y. Disclosure of AI-Generated Patent Applications: The DABUS Case. *China Invention and Patent*, 2021, 18(7): 56-63.
- [14] Hu G, Yang Z. Sufficient Disclosure of Patents for AI-Generated Inventions. *Journal of Shenyang University of Technology (Social Science)*, 2022, 15(2): 104-109.
- [15] Wang Z. Ownership of Inventions Created by Artificial Intelligence, with a View to Promoting Their Application. *Electronic Intellectual Property*, 2019(2): 21-30.
- [16] Lin X, Guo R. Challenges of Artificial Intelligence to the Justification Theory of Intellectual Property and Responses. *Intellectual Property*, 2023(11): 78-102.
- [17] Liu Y, Liu H. The Position of AI-Driven Pharmaceutical Inventions in Patent Law: Subject Matters, Conditions of Grant and Inventorship. *Electronic Intellectual Property*, 2026(6): 4-18.
- [18] Wang Q. How to Study the Problems That New Technology Raises for Legal Institutions: The Case of Artificial Intelligence and Intellectual Property. *Dongfang Law*, 2019(5): 20-27.
- [19] Zhang W, Zhang W, Sun Y. Patentability of AI-Generated Content and the Institutional Response. *Science and Technology Progress and Policy*, 2024, 41(13): 122-130.
- [20] Li J. Patent Protection of Technical Solutions Generated by Artificial Intelligence. *Intellectual Property*, 2025(8): 109-126.
- [21] Guan R, Wang J. Legal Questions Concerning Patents for Generative Artificial Intelligence. *Journal of Nanjing University of Posts and Telecommunications (Social Science)*, 2024, 26(2): 37-46.
- [22] Liu Y, Li Y. Patent Protection of Technical Solutions Generated by ChatGPT. *Intellectual Property*, 2023(7): 76-89.
- [23] Zeng L, Fu X. Experience and Lessons on the Ownership of Service Inventions from an International Perspective. *Science Technology and Law (Chinese-English)*, 2021(1): 44-52.
- [24] Zhang W, Liu X. Dilemmas and Improvements in the Patent Protection of AI Agents. *Intellectual Property*, 2026(6): 72-85.
- [25] Cheng X. The Duty of Care, Statutory Obligations and Fault of Providers of Generative Artificial Intelligence Services. *Collected Papers on Politics and Law*, 2026(4): 35-47.
- [26] Ainivar Z. Dilemmas and Countermeasures of Patent Infringement in AI-Created Inventions. *China Science and Technology Forum*, 2021, 2(4): 140-149.
- [27] Li D. Stage-Specific Duties of Care and Liability of Providers of Generative Artificial Intelligence Services. *Modern Law Science*, 2026, 48(2): 224-242.
- [28] Zhu X. The Burden of Proving Fault in Liability of Generative Artificial Intelligence Service Providers. *Comparative Law Research*, 2026(3): 19-32.